

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ

**ХАРКІВСЬКИЙ НАЦІОНАЛЬНИЙ ЕКОНОМІЧНИЙ УНІВЕРСИТЕТ
ІМЕНІ СЕМЕНА КУЗНЕЦЯ**

**Збірник практичних завдань
з англійської мови
для студентів III курсу
галузі знань**

**0501 "Інформатика та обчислювальна техніка"
денної форми навчання**

Харків. ХНЕУ ім. С. Кузнеця, 2015

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Подано навчальні матеріали та завдання для надання студентам необхідного лексичного матеріалу з теми та стимулювання розвитку навичок читання, письма й говоріння англійською мовою у сфері інформаційних систем і технологій.

Рекомендовано для студентів III курсу галузі знань 0501 "Інформатика та обчислювальна техніка" денної форми навчання.

Вступ

Збірник практичних завдань із навчальної дисципліни "Іноземна мова" розроблено для студентів галузі знань 0501 "Інформатика та обчислювальна техніка" денної форми навчання.

Збірник розроблено для підручника "Principles of Information Systems. A Managerial Approach" авторів Stair R. M., Reynolds G. W., що забезпечує міжпредметний зв'язок та спрямовує студентів на розвиток фахових компетентностей англійською мовою.

Метою збірника практичних завдань є поглиблення знань та вдосконалення мовленнєвих навичок студентів з англійської мови у сфері інформаційних систем та технологій.

Збірник практичних завдань спрямований на збагачення й розширення активного та пасивного словника студентів шляхом засвоєння термінології за допомогою лексичних завдань; набуття навичок у побудові діалогічних та монологічних висловлювань, обговоренні запропонованих тем та проблем.

Завдання розроблено на основі поетапного засвоєння знань, на основі якого у студентів будуть формуватися вміння висловлювати свої думки. Студенти вдосконалюватимуть навички в обговоренні професійних проблем на основі запитань до різноманітних професійних тем, пов'язаних із тематикою підручника.

Контроль знань, вмінь та навичок студентів може здійснюватися під час виконання завдань, термінологічних диктантів та обговорення поставлених проблем.

Метою збірника є систематизація та поглиблення знань студентів у сфері інформатики та обчислювальної техніки, розвиток навичок читання, письма й говоріння англійською мовою в повсякденному житті та професійній діяльності.

Також у роботі подано завдання, які надають можливість студентам за допомогою автентичної літератури за фахом поглибити свої знання й удосконалити провідні компетентності, висвітлені в Рекомендаціях Ради Європи з мовної освіти. Основну увагу приділено завданням на розвиток та поглиблення мовленнєвих навичок студентів.

Тематику збірника практичних завдань обрано згідно із загальноєвропейськими вимогами щодо професійно-орієнтованого підходу до вивчення іноземної мови у вищих навчальних закладах і відповідно до головних напрямів науково-дослідницької діяльності навчального закладу.

**Organizing data and information.
Information systems in the global economy.
DDB worldwide in the United States.
Why learn about database systems?**

Task 1. Comprehension questions.

1. Explain what a database management system (DBMS) is.
2. How do databases and database management systems allow businesses to do things that they couldn't previously do?
3. What considerations and precautions are necessary when developing databases?
4. How can database management systems help a marketing manager, a lawyer, a human resource manager etc?
5. Are databases helpful in science?

Task 2. Say whether the statements below are true or false.

1. Executives and managers can get the information they need to make good decisions if there is not a good database.
2. The advertising industry has historically conducted intense and thorough marketing research to turn data into intelligence and present results in an easy-to-read report.
3. Databases also help companies to generate information to reduce costs, increase profits, track past business activities and open new market opportunities.
4. A DBMS is usually bought from an advertising company.
5. To be successful, an advertiser must understand what motivates and interests buyers.
6. Before implementing the SAS database system, a single market study request could take one year and cost a few hundred thousand dollars.
7. It's also critical to the success of a company that database capabilities are aligned with the company's goals.
8. Brand Capital generates mountains of data, which can be analyzed and managed by a manager.
9. The easily accessible huge data store has significantly altered the way DDB employees work.
10. The ability of an organization to gather data, interpret it, and act on it quickly can distinguish winners from losers in a highly competitive marketplace.

Task 3. Fill in the gaps with the appropriate words from the box.

In charge of, valid, queries, valuable information, fed into, retrieve, profitability, inaccurate, edge, business intelligence

1. While interview and focus groups are interesting and useful, they aren't necessarily statistically
2. DDB uses a database management system to mine the consumer responses for nuggets of
3. The new system allows users to store and ... a tremendous amount of detailed customer satisfaction information.
4. The systems development effort can be like a house of cards, collapsing under the weight of ... and inadequate data.
5. DDB is able to turn terabytes of consumer data into useful
6. Being able to collect, store, and evaluate large quantities of consumer opinions has given DDB rare insight into human behavior and an ... over the rivals.
7. Deciding how many times to mail catalogues has a direct impact on
8. The information from the database was ... a statistical analysis program.
9. DDB employees sit down at their computers and run ... on the database.
10. Riggs is ... DDB's Brand Capital project.

Task 4. Find the words in the text that correspond to the following definitions.

- 1) to change, or to make someone or something change;
- 2) directly relating to the subject or problem being discussed or considered;
- 3) not good enough, big enough, skilled enough etc. for a particular purpose;
- 4) money that a business or organization receives over a period of time, especially from selling goods or services;
- 5) to make known something that was previously secret or unknown.

Task 5. Points for discussion.

1. What types of database management systems do you know?
2. List some applications of the DBMS.

3. What are the advantages of using a DBMS?
4. Make a list of databases in which data about you exist.
5. What do you think about database security?

Task 6. Match the words with their definitions.

1. To distinguish	a) to use something for a particular purpose
2. Integrity	b) a connection between two ideas, facts etc., especially when one may be the cause of the other
3. To utilize	c) the state of being united as one complete thing
4. To manipulate	d) someone who illegally enters a building or area, usually in order to steal something
5. Intruder	e) a belief or opinion, often held by many people and based on how things seem
6. Correlation	f) to be the thing that makes someone or something different or special
7. To shy away from sth	g) not expensive
8. Perception	h) to work skillfully with information, systems etc. to achieve the result that you want
9. Affordable	i) an action that is done to prevent something unpleasant or dangerous happening
10. Precaution	j) to avoid something that you dislike, fear, or do not feel confident about

Data management.

The hierarchy of data. Data entities, attributes, and keys

Task 1. Comprehension questions.

1. Describe the hierarchy of data.
2. What is an attribute? How is it related to an entity?
3. Define the term "database".
4. How is a database different from a database management system?
5. What is the difference between a primary key and a secondary one?

Task 2. Say whether the statements below are true or false.

1. An organization would be able to successfully complete most business activities without databases.
2. All data have their own hierarchy, starting from a specific bottom level and working through to a broad top level.
3. A file is a collection of related records.
4. A secondary key is a field or a set of fields that uniquely identifies the record.
5. The primary key is used to distinguish records so that they can be accessed, organized, and manipulated.
6. Many governments use only data items to help identify and locate possible terrorists.
7. Together bits, characters, fields, records, files, and databases form the hierarchy of data.
8. Sharing attributes and data items might be a problem in coordinating responses across functional areas of a company.
9. Most organizations organize and store data as attributes.
10. Any other records can have the same primary key.

Task 3. Fill in the gaps with the appropriate words from the box.

Record, to capture, secondary data, bit, entering, field, transformed, bytes, combining, data item

1. Locating a particular record that meets a specific set of criteria may require the use of a combination of
2. A ... is typically a name, number, or combination of characters that describes an aspect of a business object.
3. Bits can be organized into
4. Some governments are increasingly using databases to track and prevent unwanted people from ... their country.
5. ... is the specific value of an attribute and can be found in the fields of the record describing an entity.
6. Attributes are usually selected ... the relevant characteristics of entities.
7. By ... descriptions of various aspects of an object or activity, a more complete description of an object or activity is obtained.
8. For data to be ... into useful information, it must first be organized in a meaningful way.

9. A ... represents a circuit that is either on or off.
10. Once the correct customer ... is obtained, the order can be completed.

Task 4. Find the words in the text that correspond to the following definitions.

- 1) a generalized class of people, places, or things for which data is collected, stored, and manipulated;
- 2) a quality or feature, especially one that is considered to be good or useful;
- 3) a field or set of fields in a record that is used to identify the record;
- 4) a letter, mark, or sign used in writing, printing, or on a computer;
- 5) to combine two or more things in order to become more effective.

Task 5. Points for discussion.

1. List out the areas in which databases are applied extensively.
2. What is the most popular database model?
3. How are databases usually programmed?
4. How can a data hierarchy be arranged?
5. What is the highest level in the hierarchy of data organization?

Task 6. Match the words with their definitions.

1. Circuit	a) to calculate a result, answer, sum etc
2. Raw	b) a system of organization in which people or things are divided into levels of importance
3. To compute	c) when information is collected but not organized, examined, or developed
4. To capture	d) serious, important, or useful
5. Inventory	e) to get something that you want, especially through your own effort, skill, or work
6. Meaningful	f) to put something in a form that a computer can use
7. Hierarchy	g) the complete path of an electric current including usually the source of electric energy
8. Value	h) to stop something from happening, or stop someone from doing something
9. To obtain	i) the importance or usefulness of something
10. To prevent	j) a list of all the things in a place

The traditional approach versus the database approach

Task 1. Comprehension questions.

1. What are the advantages and disadvantages of the database approach versus traditional file processing?
2. What is data redundancy?
3. What is data integrity?
4. What are the basic functions of the DBMS?
5. What is the duplication of data?

Task 2. Say whether the statements below are true or false.

1. With the traditional approach, data files are created and used only for particular application.
2. A primary feature of the database approach is a standardized, uniform approach to database access.
3. The cost of hardware, software, and personnel can be spread over a large number of users.
4. The database approach to data management is an approach whereby a pool of related data is shared by multiple application programs.
5. The database approach can't use storage space and increase data integrity.
6. With the traditional approach to data management, it's impossible to have the same data in several different files used by different applications.
7. With the traditional approach, some changes to data were reflected in all copies of the data kept in separate files.
8. Most DBMSs have software that makes it easy to access and retrieve data from a database.
9. To use the database approach to data management, additional software is not required.
10. The efficient operation of a business requires a high degree of data integrity.

Task 3. Fill in the gaps with the appropriate words from the box.

Data modification, updates, encompassing, an interface, application-specific, data redundancy, flexibility, data integrity, access, buffer

1. Many modern databases are enterprise-wide, ... much of the data of the entire organization.
2. The database approach can reduce

3. All records associated with a particular application can be collected and managed together in an ... file.
4. ... is the degree to which the data in any one file is accurate.
5. Software acts as a ... between the application programs and the database itself.
6. The use of and ... to centrally located data are easier to monitor and control.
7. The database approach can also provide an organization with ... in the use of data.
8. The problem with data redundancy is the possibility that ... are accomplished in one file but not in another, resulting in a lack of data integrity.
9. A database management system (DBMS) is a group of programs used as ... between a database and an applications program.
10. The functions of a DBMS include data storage and retrieval, ..., data manipulation, and report generation.

Task 4. Find the words in the text that correspond to the following definitions.

- 1) a number or amount of something available for sharing;
- 2) the fact that different pieces of computer equipment and software can be used together;
- 3) the numbers or letters that you have to put into a computer in order to be able to use the system;
- 4) a list of all the people that a company employs and the money that each of them earns;
- 5) a mistake or fault in something that makes it useless or less effective.

Task 5. Points for discussion.

1. What are the components of a DBMS?
2. What are the costs and risks of using databases?
3. What are the different types of databases?
4. Who is involved in the DBMS development?
5. Which hardware component is the most important to the operation of a DBMS? (high resolution video display; printer; high speed, large capacity disk; plotter; mouse)

Task 6. Match the words with their definitions.

1. To process	a) to make something more modern or suitable for use now by adding new information or changing its design
2. Redundancy	b) to combine several things so that they become more effective, or to be combined in this way
3. Accurate	c) the quality of being complete or whole, without any missing parts
4. Update	d) to operate on (data) by means of a program
5. Storage	e) to find and bring back something
6. To consolidate	f) the putting and keeping of things in a special place for use in the future
7. Framework	g) the inclusion of extra components that are not strictly necessary to functioning, in case of failure in other components
8. Integrity	h) throw back (heat, light, or sound) without absorbing it
9. To reflect	i) correct in all details; exact
10. To retrieve	j) a system of rules, ideas, or beliefs that is used to plan or decide something

Data modeling and the relational database model

Task 1. Comprehension questions.

1. What is a database? What issues are important to consider while creating a database?
2. What database models are there? Which one is the most popular?
3. What are entity-relationship (ER) diagrams needed for?
4. How is data organized in a relational database model? What are basic data manipulations?
5. What is the purpose of data cleanup?

Task 2. Say whether the statements below are true or false.

1. The logical design of a database involves identifying relationships among the different data items and grouping them in an orderly fashion.
2. A data model is a spreadsheet of entities and their relationships.
3. In the relational model, each row of a table represents a data entity, with the columns of the table representing their relations.

4. Joining involves dividing two or more tables.
5. Data anomalies often result in incorrect information, causing database users to be misinformed about actual conditions.

Task 3. Fill in the gaps with the appropriate words from the box.

Errors, database, clean up, physical, relational, analyze, linked, ER, domain, access

1. A ... should be designed to store all data relevant to the business and provide quick access and easy modification.
2. Building a database requires two different types of designs: a logical design and a ... design.
3. Various models have been developed to help managers and database designers ... data and information needs.
4. ... diagrams can serve as reference documents once a database is in use.
5. The tables in relational databases organize data in rows and columns, simplifying data ... and manipulation.
6. The ... for an attribute such as gender would be limited to male or female.
7. The tables in a relational database can be ... to provide useful information and reports.
8. The ... model can be used with personal computers and mainframe systems.
9. A database can contain
10. Formalized approaches, such as database normalization, are often used to ... problems with data.

Task 4. Find the words in the text that correspond to the following definitions.

- 1) an alteration or adjustment to something;
- 2) a set of instructions passed to a database;
- 3) the applicable option selection; a variable or a value; a semantic item with which a method, etc may be decorated;
- 4) data manipulation that combines two or more tables;
- 5) to monitor the movement of a person or object.

Task 5. Points for discussion.

1. Why is it important to keep all the data organized?
2. Do you think it's convenient to use data modeling? What difficulties can one face?
3. Can you name any disadvantages of a rational database model?
4. In what way can some errors in databases be improved?
5. What database model would you prefer? Give reasons.

Task 6. Match the words with their definitions.

1. Planned data redundancy	a) the allowable values for data attributes
2. Data model	b) a way of organizing data in which the logical database design is altered so that certain data entities are combined, summary totals are carried in the data records rather than calculated from elemental data, and some data attributes are repeated in more than one data entity to improve database performance
3. Enterprise data modeling	c) a database model that describes data in which all data elements are placed in two dimensional tables, called relations, that are the logical equivalent of files
4. Entity-relationship (ER) diagrams	d) data manipulation that eliminates columns in a table
5. Relational model	e) the process of looking for and fixing inconsistencies to ensure that data is accurate and complete
6. Domain	f) data models that use basic graphical symbols to show the organization of and relationships between data
7. Selecting	g) data manipulation that combines two or more tables using common data attributes to form a new table with only the unique data attributes
8. Projecting	h) a diagram of data entities and their relationships
9. Data cleanup	i) data manipulation that eliminates rows according to certain criteria
10. Linking	j) data modeling done at the level of the entire enterprise

The DBMS. An overview of database types. Providing a user view. Creating and modifying the database

Task 1. Comprehension questions.

1. What is the DBMS?
2. How many types of databases do you know?

3. What is the difference between a schema and a subschema?
4. Give the functions of the DBMS.
5. What is a flat file?

Task 2. Say whether the statements below are true or false.

1. A schema cannot be part of the database.
2. A subschema is a description of the entire database.
3. With subschemas, the underlying structure of the database can change, but the view the user sees might not change.
4. Schemas and subschemas are entered into the DBMS via a data definition language.
5. To establish a data dictionary is not important in creating a database.

Task 3. Fill in the gaps with the appropriate words from the box.

Capabilities, to access, relevant, linked, data definition language (DDL), databases, flat file, implemented, run, to define

1. A new work program for young people will be ... next year.
2. This list shows the ... implemented on Linux, and the operations or behaviors that each of them permits.
3. Traditional ... are organized by fields, records, and files.
4. In a Hypertext database, any object, whether it is a piece of text, a picture, or a film, can be ... to any other object.
5. ... information from a database, you need a database management system (DBMS).
6. There are many different types of DBMSs, ranging from small systems that ... on personal computers to huge systems that run on mainframes.
7. A ... database describes any of various means to encode a database model (most commonly a table) as a single file.
8. In Database Management Systems (DBMS), a ... is used to specify a database scheme as a set of definitions.
9. We need ... the task ahead very clearly.
10. I need all the ... information.

Task 4. Find the words in the text that correspond to the following definitions.

- 1) to help somebody to do something;
- 2) the state of not being necessary or useful;
- 3) closely connected with the subject you are discussing or the situation you are thinking about;
- 4) to change something slightly, especially in order to make it more suitable for a particular purpose;
- 5) suitable, acceptable or correct for the particular circumstances.

Task 5. Points for discussion.

1. How can we create a database? Describe it.
2. When can a person use a flat file?
3. Explain the difference between a schema and a subschema through your own example.
4. What is a data dictionary? What elements does it contain?
5. Give the uses of a data dictionary.

Task 6. Match the words with their definitions.

1. To eliminate	a) to give something to somebody or make it available for them to use
2. Inventory	b) to say that something is good enough to be used or is correct
3. To provide	c) that can be trusted to do something well; that you can rely on
4. Capability	d) the ability or qualities necessary to do something
5. To approve	e) a way of dealing with somebody/something; a way of doing or thinking about something such as a problem or a task
6. To utilize	f) the act or process of changing something in order to improve it or make it more acceptable; a change that is made
7. Reliability	g) to remove or get rid of something/somebody
8. Modification	h) an outline of a plan or theory
9. Approach	i) to use something, especially for a practical purpose
10. Schema	j) a written list of all the objects, furniture, etc in a particular building

Storing and retrieving data. Manipulating data and generating reports

Task 1. Comprehension questions.

1. What is a concurrency control?
2. When is it used?
3. How can people get information and generate reports?
4. What is a data manipulation language?

Task 2. Say whether the statements below are true or false.

1. When an application program needs data, it requests the data through the DBMS.
2. When the DBMS goes to the storage device to retrieve the data, it follows to the physical access path.
3. If two or more people attempt to access the same record in the same database at the same time, there cannot be a problem.
4. Once a DBMS has been installed, employees and managers can use it to get important information.
5. QBE is an approach to creating database queries.

Task 3. Fill in the gaps with the appropriate words from the box.

Embedded, perform, record, manipulate, program, queries, output, access, tool, modified

1. A computer can ... many tasks at once.
2. One approach is to lock out all other application programs from ... to a record if it is being updated or used by another program.
3. The commands that are used to ... the database are part of the data manipulation language.
4. DML allows managers and users to access, modify and make
5. The software we use has been ... for us.
6. SQL statements can be ... into many programming languages.
7. Connect a cable to the
8. His new ... is available on CD or as a download.
9. They loaded the ... into the computer.
10. The computer is now an invaluable ... for the family doctor.

Task 4. Find the words in the text that correspond to the following definitions.

- 1) to find and get back data or information that has been stored in the memory of a computer;
- 2) to keep information or facts in a computer;
- 3) to control or influence somebody/something;
- 4) to produce or create something;
- 5) a question, especially one asking for information or expressing a doubt about something.

Task 5. Points for discussion.

1. Describe the logical and physical access path.
2. Give explanation of the DBMS function – an interface between an application program and the database.
3. How can a user get information from the database?
4. What is Query-by-Example?
5. How can a user perform queries and other database tasks? Give examples.

Task 6. Match the words with their definitions.

1. Feature	a) the action of asking for something
2. To manipulate	b) a set of instructions in code that control the operations or functions of a computer
3. Request	c) a spoken or written description of something containing information that somebody needs to have
4. To obtain	d) something important, interesting or typical of a place or thing
5. To perform	e) the process of keeping information, etc on a computer; the way it is kept
6. Program	f) to do something, such as a piece of work, task or duty
7. Software	g) to put a new program onto a computer
8. Storage	h) to control or use something in a skilful way
9. Report	i) the programs, etc. used to operate a computer
10. To install	j) to get something, especially by making an effort

Database administration. Popular database management systems. Special-purpose database systems

Task 1. Comprehension questions.

1. What is a database administrator?
2. What are the DBA's responsibilities?
3. Who is a data administrator?
4. What are the most popular database management systems?
5. Give some examples of special-purpose database systems and describe their usage.

Task 2. Say whether the statements below are true or false.

1. A DBA must have a clear understanding of the fundamental business of the organization, be proficient in the use of selected database management systems.
2. The data administrator is a technical position responsible for defining and implementing consistent principles for a variety of data issues.
3. There are a number of specialized database packages used for specific purposes.
4. Summation and Concordance is not a special-purpose database system.
5. In-memory databases use a computer's memory instead of a hard disk.

Task 3. Fill in the gaps with the appropriate words from the box.

Established, to define, performed, store, performance, emerged, database, experience, supports, maintaining

1. The surgeon ... the operation.
2. The company has done a poor job of ... its computer network.
3. The company has ... itself as a leader in the industry.
4. The facts ... after a lengthy investigation.
5. She has five years' ... as a computer programmer.
6. A supervisor will evaluate each employee's
7. The government study seeks ... urban poverty.
8. A ... is an organized collection of data.
9. The data are typically organized to model relevant aspects of reality in a way that ... processes requiring this information.
10. The solar panels ... energy.

Task 4. Find the words in the text that correspond to the following definitions.

- 1) to support somebody/something over a long period of time by giving money, paying for food, etc;
- 2) to discover the facts about something; to calculate something exactly;
- 3) to make sure that something happens or is definite;
- 4) that you can get, buy or find;
- 5) a set of programs that controls the way a computer works and runs other programs.

Task 5. Points for discussion.

1. What are the responsibilities of a data administrator?
2. Explain the meaning of the open-source database management systems.
3. Where are the database management systems used?
4. What are the functions of a special-purpose database?
5. What are the tasks of the DBA?

Task 6. Match the words with their definitions.

1. To encompass	a) to work or function well or badly
2. To establish	b) to exist or to apply in a particular situation or at a particular time
3. To perform	c) to make something that has been officially decided start to happen or be used
4. To implement	d) extremely important, because it will affect other things
5. Maintenance	e) to include a large number or range of things
6. To pertain	f) to produce or create something
7. Relevant	g) to watch and check something over a period of time in order to see how it develops, so that you can make any necessary changes
8. Crucial	h) the act of keeping something in good condition by checking or repairing it regularly
9. To monitor	i) closely connected with the subject you are discussing or the situation you are thinking about
10. To generate	j) to start or create an organization, a system, etc that is meant to last for a long time

Selecting a database management system.

Using databases with other software

Task 1. Comprehension questions.

1. What does a DBMS stand for?
2. What are important characteristics of databases?
3. What does the term *scalability* mean?
4. What is a front-end application?
5. What is a back-front application?

Task 2. Say whether the statements below are true or false.

1. The database size determines the overall storage requirement for the database.
2. Companies are not trimming the size of their database to maintain good performance and reduce costs.
3. The term *scalability* means the performance of databases.
4. Organizations often do not undergo a change to increase database speed and storage efficiency.
5. The main aspect of any database management system is its integration with other databases and applications.

Task 3. Fill in the gaps with the appropriate words from the box.

Execute, vendor, scarcity, ability, application, undergoing, facility, cost, to enhance, maintenance

1. In classical mechanics, the energy of a body is defined in terms of its ... to do work on other bodies.
2. This ... allows the user to input text in various forms onto the screen and thus create a true newspaper page.
3. Most systems ... only a few hundred unique queries.
4. New recruits have been ... training in recent weeks.
5. This is an opportunity ... the reputation of the company.
6. Because of ... , various economic decisions must be made to allocate resources efficiently.
7. A ... in a supply chain is an enterprise that contributes goods or services in a supply chain.
8. An ... is a program or group of programs designed for end users.
9. The university pays for heating and the ... of the buildings.
10. The plan had to be abandoned on grounds of

Task 4. Find the words in the text that correspond to the following definitions.

- 1) to support somebody/something over a long period of time by giving money, paying for food, etc;
- 2) to make something less or smaller in size, quantity, price, etc;
- 3) the amount of money that you need in order to buy, make or do something;
- 4) to change or make something change from one form, purpose, system, etc to another;
- 5) to make something more modern by adding new parts, etc.

Task 5. Points for discussion.

1. Which of these criteria (the size of the database, the number of concurrent users, performance, the ability of the DBMS to be integrated with other systems, the features of the DBMS, vendor considerations, and the cost of the system) is the most important and the least important one?
2. Why are companies trimming the size of their databases?
3. According to the author the most important factor for some organizations can be performance. Do you agree or disagree? Why/Why not?
4. Is it essential for a company to be integrated with other companies? Why/Why not?
5. Give some examples (at least 3) of front-end and back-end applications.

Task 6. Match the words with their definitions.

1. Database	a) to do a piece of work, perform a duty, put a plan into action, etc
2. Query	b) to experience something, especially a change or something unpleasant
3. To integrate	c) shortage
4. To execute	d) an organized set of data that is stored in a computer and can be looked at and used in various ways
5. To enhance	e) how well or badly you do something; how well or badly something works
6. To undergo	f) to increase or further improve the good quality, value or status of somebody/something
7. To trim	g) a question, especially one asking for information or expressing a doubt about something
8. Performance	h) to cut away unnecessary parts from something
9. Scarcity	i) to discover the facts about something; to calculate something exactly
10. To determine	j) to combine two or more things so that they work together; to combine with something else in this way

Database applications. Linking the company database to the Internet. Web-based DBMS empowers cruise line personnel

Task 1. Comprehension questions.

1. What do suppliers use the Internet and corporate extranets for?
2. How does the new reporting system at Holland America Line empower revenue management personnel?
3. How does the new system allow the IS staff to work more efficiently?
4. What is the semantic Web? What does it allow people and companies to do?
5. What are potential problems of connecting databases to corporate web sites?

Task 2. Say whether the statements below are true or false.

1. With a bit of training, all end users are interacting with the system directly to create their own reports.
2. Customers, suppliers, and company employees must be able to access corporate databases through the Internet, intranets, and extranets to meet various business needs.
3. In these days many businesses are turning to new database technologies to streamline operations and spend money.
4. Organizations are gaining access to databases through networks to get good prices and unreliable service.
5. The manager of online communications for the shore excursion department at Holland America plans to become less dependent on the IS staff by training on the new system.

Task 3. Fill in the gaps with the appropriate words from the box.

Networks, inventory, querying, alter, warehouses, streamlined, revenues, accessibility, wealth, semantic Web

1. Speed and ... of information access are the attributes that will increase productivity and revenues.
2. Organizations are gaining access to databases through
3. Applications allow users to set up data ... and marts.
4. Suppliers use the Internet to view ... databases to check the levels of raw materials and the current production schedule.

5. Simplest Shop offers a ... of information on each compact disk, including product reviews.

6. After running a query and producing a report, employees can ... the view of the data by resorting it or introducing new fields into the inquiry.

7. The goal of every upgrade is to increase

8. A ... allows people to access and manipulate a number of traditional databases at the same time through the Internet.

9. Holland America plans to load the information into a ... data warehouse to be accessed more quickly.

10. WebFocus provides more powerful analysis, ... and reporting tools.

Task 4. Find the words in the text that correspond to the following definitions.

1) improvement;

2) a place where goods are stored prior to their use, distribution, or sale;

3) to make or become different in some respect; change;

4) to alter so as to make more efficient or simple;

5) a computer program that allows easy entry and manipulation of figures, equations, and text, used esp for financial planning and budgeting.

Task 5. Points for discussion.

1. The change of information access at Holland America Line is indicative of a general trend in many industries: non-IS employees are assuming traditional IS staff responsibilities. Do you think that this trend evolved purely out of efforts to save money by reducing IS staff, or are there substantial benefits to bringing IS power to the people? What might those benefits be?

2. Is it realistic to expect non-technical employees to acquire higher-level technical skills? Will the nontechnical staff be willing and able to assume the task?

3. Name the benefits of the semantic Web.

4. Enumerate potential problems of connecting databases to corporate Web sites and networks.

5. How is it possible to secure a corporate database?

Task 6. Match the words with their definitions.

1. Susceptible	a) a market or trading centre
2. Vendor	b) easily impressed emotionally
3. Mart	c) any exemption, privilege, or right granted to an individual or group by a public authority, such as the right to use public property for a business
4. Remote	d) a computer programming language used for database management
5. SQL	e) by way of; by means of; through
6. Franchise	f) located far away; distant
7. Via	g) a person who sells something, esp real property

Data warehouses, data marts, and data mining. The growing cost of data-related regulations

Task 1. Comprehension questions.

1. What is the purpose of data warehousing?
2. What is data mining's objective?
3. Why do retailers use predictive analysis?
4. Why has the government stepped up efforts to regulate record keeping in financial and medical industries?
5. With many medical organizations already strapped for cash, especially hospitals, is it fair for the government to force them to comply with expensive new regulations? Who should bear the financial burden of secure and private record keeping?

Task 2. Say whether the statements below are true or false.

1. Information system companies are designing systems to help people and organizations comply with the many new laws and regulations.
2. E-commerce presents major opportunity for effective use of data warehousing.
3. The purpose of the OLTP database is to support transaction processing.
4. Data warehouses can get data from unique sources.
5. A data warehouse stores historical data that has been extracted from operational systems and internal data sources.

Task 3. Fill in the gaps with the appropriate words from the box.

Attracting, E-commerce, retention, raw, combines, purged, investing, multidimensional, data-cleaning, updating

1. ... the data warehouse must be fast, efficient, and automated.
2. ... customers to online Web sites is tough; keeping them can be next to impossible.
3. Old data that is no longer needed is ... from the data warehouse.
4. Organizations are ... in systems for data mining to meet new government regulations.
5. Data mining is used extensively in marketing to improve customer
6. The data warehouse provides business users with a ... view of the data they need to analyse business conditions.
7. The ... data is initially captured, stored, and managed by transaction processing systems.
8. ... tools can merge data from many sources into one database.
9. ... presents major opportunity for effective use of data mining.
10. IBM Total Storage Data Retention 450 ... server, storage and software components in a secure cabinet.

Task 4. Find the words in the text that correspond to the following definitions.

- 1) close observation or supervision maintained over a person, group, etc, esp one in custody or under suspicion;
- 2) to give out or issue in portions;
- 3) responsible to someone or for some action; answerable;
- 4) the gathering of information from pre-existing data stored in a database, such as one held by a supermarket about customers' shopping habits;
- 5) to look at or examine something in depth.

Task 5. Points for discussion.

1. Attracting customers to online Web sites is tough; keeping them can be next to impossible. Comment on this statement.
2. What is the difference between the OLTP database and data warehousing?
3. Name the benefits of data warehouses.

Read "What would you do" on page 223 and answer the following questions:

- What policies and technologies might you implement to reduce the overall amount of e-mail sent and received?
- Who should bear the financial burden of archiving data that may or may not be needed as evidence in court?

Task 6. Match the words with their definitions.

1. Verification	a) precision
2. To launder	b) to be cleansed or purified
3. Competitive	c) confirmatory evidence
4. Accuracy	d) the act of taking something for granted or something that is taken for granted
5. To purge	e) to make (something secret or concealed) known or public
6. To unveil	f) to process (something acquired illegally) to make it appear respectable
7. Assumption	g) relating to or characterized by an urge to compete

**Business intelligence. Distributed databases.
Online analytical processing**

Task 1. Comprehension questions.

1. What are the benefits of using business-intelligence software?
2. What is competitive intelligence? What is counterintelligence?
3. What is knowledge management?
4. What are the advantages of using distributed databases? What is a replicated database?
5. What do consumer goods companies use OLAP for?

Task 2. Say whether the statements below are true or false.

1. Powerful information-analysis tools in areas such as OLAP and data warehouses help organizations deliver greater competitive value.
2. Data synchronization is used to make sure that duplicated databases are accurate.
3. Distributed databases allow more users direct access at different sites.

4. Today most companies use the business-intelligence approach.
5. A skilled professional, using a variety of analytical tools, can by induction fill the gaps in information already gathered.

Task 3. Fill in the gaps with the appropriate words from the box.

Data synchronization, distributed database, knowledge management, measures, OLAP, decision-making, rely on, business intelligence, competitive intelligence, data-mining

1. ... is a critical part of a company's ability to see and respond quickly and appropriately to the changing marketplace.
2. ... gives corporations more flexibility in how databases are organized and used.
3. ... allow users to explore corporate data from a number of different perspectives.
4. The purpose of data mining and OLAP is to support data analysis and
5. A user of a ... tool does not need to figure out what questions to ask.
6. The data in multiple dimensions, called ..., is generally aggregated.
7. Because distributed databases ... telecommunications lines to transport data, access to data can be slower.
8. ... is used to make sure that replicated databases are accurate and up to date.
9. The goal of ... is to get people to record knowledge and then share it.
10. ... turns data into useful information that is then distributed throughout an enterprise.

Task 4. Find the words in the text that correspond to the following definitions.

- 1) to remove or take out; get rid of;
- 2) carefully worked out, detailed and thorough;
- 3) to recover or make newly available (stored information) from a computer system;
- 4) to gather or become gathered together in an increasing quantity; amass; collect;
- 5) inventive talent; cleverness.

Task 5. Points for discussion.

1. Name the benefits of using OLAP.
2. What is data synchronization used for? Give some examples.
3. Are there any disadvantages of using distributed databases?
4. How is it possible to protect information sought by hostile intelligence gatherers?
5. Why do a number of companies use the business-intelligence approach?

Task 6. Match the words with their definitions.

1. Dimension	a) brilliant and dazzling, esp for a short time or in a superficial way
2. To remedy	b) activities designed to frustrate enemy espionage
3. Counterintelligence	c) the systematic use of spies to obtain secret information, esp by governments to discover military or political secrets
4. To retrieve	d) without error; precise; meticulous
5. Flashy	e) to put to rights (a fault, error, etc.); correct
6. Accurate	f) a measurement of the size of something in a particular direction, such as the length, width, height, or diameter
7. Espionage	g) to recover or make newly available (stored information) from a computer system

Open database connectivity. Object-oriented and object-relational database management systems. Visual, audio, and other database systems

Task 1. Comprehension questions.

1. What are the benefits of ODBC standards?
2. What is an object-oriented database? What are its benefits compared with the traditional DBMS?
3. What system does object-oriented database management system (OODBMS) use? What for?
4. What is a spatial data technology? What does it do?
5. What is a virtual database system?

Task 2. Say whether the statements below are true or false.

1. Special-purpose database systems include only visual, audio and virtual databases.
2. Special data is used to improve financial risk management.
3. ODBC-compliant products do not suffer from their all-purpose nature.
4. With the approach of object-oriented programming, both the data and the processing instructions are stored in the database.
5. With an object-oriented database, sellers can quickly get a variety of reports on inventory and supplies.

Task 3. Fill in the gaps with the appropriate words from the box.

Pitch, monthly, integration, defense, spatial, method, integrate, mine, challenge, plug

1. Combining and analyzing data from separate and totally different databases is an increasingly important database
2. The database software can correct ... errors and modify voice patterns.
3. OODBMS is used by companies in telecommunications, financial services and ... industries.
4. Vendors offer a standard socket into which users can ... special instructions.
5. ... data is used to improve financial risk management.
6. A traditional DBMS stores only ... expenses.
7. In an object-oriented database, a ... is a procedure or action.
8. To help with database ..., many companies rely on ODBC.
9. ODBC standards make it easier for growing companies to ... existing databases.
10. Information tools provide ways in which you can ... huge data sets.

Task 4. Find the words in the text that correspond to the following definitions.

- 1) a computer program that allows easy entry and manipulation of figures, equations, and text, used esp for financial planning and budgeting;
- 2) computer programming language used for database management;
- 3) a person who sells something;
- 4) to pass or cause to go from one place or person to another; transfer;
- 5) existing or happening in space.

Task 5. Points for discussion.

1. What is a method and a message in an object-oriented database?
2. Why do some organizations use object-oriented databases?
3. What's the difference between OODBMS and ORDBMS?
4. Name the benefits of using spatial data technology.
5. Name the benefits of using virtual database systems.

Task 6. Match the words with their definitions.

1. Hazard	a) an enclosed area or building marked by a fixed boundary such as a wall
2. Query Language	b) a module or piece of software that can be added to a system to provide extra functions or features, esp software that enhances the capabilities of a web browser
3. Plug-In	c) a computer filing operation that recalls records or other data from a file
4. Work Station	d) the instructions and procedures used to retrieve information from a database
5. Precinct	e) an electrical circuit linking one device, esp a computer, with another
6. Retrieval	f) a device or component of an electronic office system consisting of a display screen and keyboard used to handle electronic office work
7. Interface	g) an obstacle such as a bunker, a road, rough, water, etc

Systems implementation.

Acquiring hardware from an IS vendor. Acquiring software: make or buy? Acquiring database and telecommunications systems

Task 1. Comprehension questions.

1. What process can be called Systems Implementation?
2. What can organizations do to obtain the components for an information system?
3. What does the term an "IS Vendor" mean?
4. What types of IS vendors do you know?
5. Name the typical steps in Systems Implementation.

6. How can application software be acquired?
7. How do you understand the term "make-or-buy decision"?
8. Why can upgrading database systems be one of the most important steps of a systems development effort?
9. What is one of the fastest-growing applications for today's businesses and individuals?
10. Give the definition of a structured walkthrough.

Task 2. Say whether the statements below are true or false.

1. Companies can reap great rewards after implementing new systems.
2. In addition to buying, leasing, or renting computer software, it is possible to pay only for the computing services that a company uses.
3. If new hardware is to be purchased or leased, old hardware may have to be discarded.
4. Application software can't be acquired several ways.
5. Open-source software can cut the cost of software acquisition.
6. Software can't be developed using the object-oriented approach.
7. The lead programmer team is a group of skilled IS professionals.
8. Traditionally, programmer teams consisted of employees hired by the company.
9. Testing isn't a vital step in developing computer programs.
10. Databases are a blend of hardware and software.

Task 3. Fill in the gaps with the appropriate words from the box.

<p><i>Modifications, vendor, get, implementing, stages, applications, IT, operation, project, dependent</i></p>
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1. With any major software implementation, you are changing the entire ... of the company and everyone's responsibilities.
2. Conversions to new systems often ... off track because companies fail to plan the project realistically.
3. Companies should maintain joint responsibility with the ... in the project-planning process.
4. The software vendor should have a time-tested ... methodology and provide a high-level general plan.
5. One of the most prevalent mistakes that companies make in ... systems is trying to replicate their existing systems.

6. ... increase cost, elongate the implementation timeframe and increase risk.

7. Many ... have hundreds to more than 1,000 system control switches.

8. The implementation of a business integration system is performed in

9. Evaluation and design are ... upon the detailed information gathered during discovery.

10. In the ... Industry, implementation refers to post-sales process of guiding a client from purchase to use of the software or hardware that was purchased.

Task 4. Find the words in the text that correspond to the following definitions.

1) a piece of equipment that has been fitted in its place;

2) the process by which you gain knowledge or learn a skill, something that you have obtained by buying it or being given it;

3) someone who is selling something;

4) already made and available in shops rather than being designed especially for a customer;

5) written instructions that tell you all the details of how you should do smth.

Task 5. Points for discussion.

1. What do types of IS vendors include?

2. Name some general computer manufactures.

3. What can be attractive to firms that are experiencing an economic slowdown?

4. What is the reason for millions of computers being discarded each year?

5. Name some of the reasons a company might purchase or lease externally developed software.

6. Give an example of an open-source software system.

7. What should be done when the software is not meeting organizational goals?

8. Describe the typical structure of a Chief Programmer Team.

9. What are the phases of the programming life cycle?

10. What do you know about the top-down approach?

Task 6. Match the words with their definitions.

1. Implementation	a) a contract granting use or occupation of property during a specified time for a specified payment
2. Leasing	b) written programs or procedures or rules and associated documentation pertaining to the operation of a computer system and that are stored in read/write memory
3. Development	c) the act of making something different
4. Price	d) act of improving by expanding or enlarging or refining
5. Software	e) the act of making up your mind about something
6. Maintenance	f) activity involved in maintaining something in good working order
7. Hardware	g) an organized body of related information
8. Decision	h) the high value or worth of something
9. Modification	i) the mechanical, magnetic, electronic, and electrical components making up a computer system
10. Database	j) the act of accomplishing some aim or executing some order

Task 7. Complete the text with the best words.

An integrated development (1) ... (IDE) (sometimes known as an integrated design environment or integrated debugging environment) is a software application that provides (2) ... facilities to programmers for software development.

Many coders learn to code using a text editor but in time they move (3) ... using an IDE as this type of software application makes the art of coding quicker and more (4) For example, IDEs have semantic knowledge of the programming language which highlights coding problems while typing. Compiling is "on the fly" and debugging is integrated. An IDE normally (5) ... :

- a source code editor (essentially a text editor with additional features such as code completion, structural navigation, and syntax highlighting);

- a debugger;
- a compiler and/or interpreter;
- build automation tools.

1. a) sphere; b) environment; c) surroundings.
2. a) integral; b) broad; c) comprehensive.
3. a) towards; b) about; c) round.
4. a) efficient; b) suitable; c) effective.
5. a) makes up; b) comprises; c) encompasses.

User preparation. IS personnel: hiring and training. Site preparation. Data preparation. Installation. Testing. Start-up. User acceptance

Task 1. Comprehension questions.

1. Whom may the organization have to hire depending on the size of the new system?
2. What is site preparation?
3. What does data preparation involve?
4. What does the term "installation" mean?
5. What forms of testing do you know?
6. What does system testing require?

Task 2. Say whether the statements below are true or false.

1. For a large system, site preparation can be as simple as rearranging the furniture in an office.
2. Data conversion involves making sure that all databases are ready to be used with the new computer software.
3. Testing procedures are not essential to make sure that the new information system operates as intended.
4. Alpha testing involves testing an early version of the system.
5. Start-up finishes with the final tested information system.
6. Pilot start-up includes running the new system for one group of users rather than all users.
7. Stakeholders may be involved in acceptance to make sure that the benefits to them are indeed realized.
8. The cost of training can't be negotiated during the selection of new software.
9. User preparation is the process of readying managers and other users.
10. Installation is a process of physically placing the computer equipment on the site and making it operational.

Task 3. Fill in the gaps with the appropriate words from the box.

Place, staff, problem, software, testing, development, purpose, process, hiring, designing

1. ... good personnel is one of the most difficult aspects of any business venture.
2. Before you even begin a recruiting process, you need to determine whether you already have ... on board who may be able to fill the job.
3. The most common way to find employees is to ... a newspaper advertisement.
4. When ... an incentive program for your employees, don't limit yourself to cash or percentage rewards.
5. Software ... is an investigation conducted to provide stakeholders with information about the quality of the product or service under test.
6. Software testing, depending on the testing method employed, can be implemented at any time in the software ... process.
7. Traditionally most of the test effort occurs after the requirements have been defined and the coding ... has been completed.
8. Testing can never completely identify all the defects within... .
9. A very fundamental ... with software testing is that testing under all combinations of inputs and preconditions is not feasible.
10. A primary ... of testing is to detect software failures so that defects may be discovered and corrected.

Task 4. Find the words in the text that correspond to the following definitions.

- 1) to employ someone;
- 2) the tools, machines, clothes etc that you need to do a particular job or activity;
- 3) a new small company or business, especially one whose work involves computers or the Internet;
- 4) help or support;
- 5) someone who has invested money into something, or who has some important connection with it, and therefore is affected by its success or failure.

Task 5. Points for discussion.

1. Do you consider training users to be an essential part of user preparation?
2. What does the eventual success of any system depend on?
3. Do you agree with the words of the CEO of PeopleSoft : "If you get a strong background in business, technology and an understanding of other people and countries, you'll be able to participate in the future"? Explain your opinion.
4. What do you need to make sure that the new or modified information system operates as intended?
5. What is unit testing accomplished by? Can you think of more examples besides Mohegan sun Casino mentioned in the textbook?

Task 6. Match the words with their definitions.

1. Preparation	a) a way of dealing with a situation or problem
2. Data	b) a test of software to see if it works properly, done by the company that is writing the software
3. Approach	c) the process of preparing something
4. Personnel	d) information in a form that can be stored and used, especially on a computer
5. Alpha testing	e) the people who work in a company, organization
6. Application	f) when people agree that an idea, statement, explanation etc is right or true
7. Acceptance	g) a piece of computer software which does a particular job

Task 7. Complete the text with the best words.

Incentives and Rewards

When designing an (1) ... program for your employees, don't limit yourself to cash or percentage rewards. Although they can be effective, money isn't always the best incentive. It is important to appreciate employees in the way they want to be appreciated. Non-monetary rewards can be aimed at three different kinds of personalities: feeling, logical and action types. Each type will be best motivated by a different reward.

The first group – the feeling type of person – is best motivated by recognition and by some demonstration that they are valued. (2) ... that

provide the best incentive are things like a plaque on the wall in the salon, employee of the month awards, mention in a customer newsletter, flowers and similar approaches.

The second group – the logical employees – need to have quantitative (3) ... to achieve. They like to see exactly where they stand, be it on a board or graph in the office or whatever. Then they can mark their progress against the chart, striving to reach a clearly defined target.

Finally, the active type of employee isn't motivated by money so much as by what it enables him to do. That is to say, money is a means, not an end. It makes sense that the way to focus this person on a goal is to reward his or her (4) ... with fun, active things. A few examples might be tickets to concerts or sporting events, mini-vacations, restaurant gift certificates and similar activities.

The (5) ... in all cases is to make sure the reward is something that the person values. If you don't present the goal and reward in the employee's language and value system they either won't see it or will become confused.

1. a) incentive; b) motivation; c) intention.
2. a) prize; b) benefit; c) rewards.
3. a) target; b) goals; c) objective.
4. a) effort; b) achievement; c) performance.
5. a) key; b) answer; c) clue.

Types and functions of application software. Personal application software. Workgroup application software. Enterprise application software

Task 1. Comprehension questions.

1. What types of software does application software include?
2. How can a customized software package be obtained?
3. What are the types of personal application software?
4. What are the benefits of a spreadsheet analysis?
5. What kind of support does workgroup application software provide?
6. How does integrated enterprise software work?

Task 2. Say whether the statements below are true or false.

1. The initial cost of off-the-shelf software is quite high.
2. When using an application service provider one may put his sensitive information at risk.

3. User software includes the general-purpose tools and program that support individual needs.

4. Spreadsheets can be used to develop advertising brochures, announcements and full-color presentations.

5. Software suites do not require the large amount of main memory.

6. If an enterprise wants to correspond to the modern market, it should use integrated information systems.

Task 3. Fill in the gaps with the appropriate words from the box.

Database applications, software suite, enterprise resource planning, hackers, word processing applications, graphics program, enterprise software, groupware, spreadsheets, proprietary software

1. ... is usually developed and owned by the company or organization that will use the software.

2. One should take special measures to protect sensitive information from computer

3. ... are indispensable when writing different types of information.

4. Whenever numbers and calculations are involved, ... should be considered.

5. ... are particularly useful when you need to manipulate a large amount of data and produce reports and documents.

6. A ... can be used to help you make a presentation, drawing, or an illustration.

7. A ..., such as Microsoft Office 2003, offers a collection of powerful programs.

8. ... helps groups of people work together more efficiently.

9. Many organizations are moving to integrated ... that supports supply chain managers.

10. ... systems provide integrated software to support manufacturing and finance of an organization.

Task 4. Find the words in the text that correspond to the following definitions.

1) a person who sells something;

2) a pattern, cut out in wood, card, plastic or metal, used in various crafts to help shape something accurately;

- 3) a man-made device orbiting around the earth, moon, or another planet transmitting to earth scientific information or used for communication;
- 4) a computing device small and light enough to be used while you are holding it;
- 5) the act of
- 6) obtaining and paying for an item or service.

Task 5. Points for discussion.

- 1. Advantages and disadvantages of proprietary and off-the-shelf software.
- 2. Functions of an application service provider.
- 3. Tasks performed by computer applications.
- 4. Personal information managers as a way out for busy people.
- 5. Advantages of online information services.
- 6. Collaborative software as a means to improve teamwork.

Task 6. Match the words with their definitions.

1. To retrieve	a) to work with another or others on a joint project
2. To allocate	b) to assign or allot something for a particular purpose
3. To collaborate	c) to get back information that has been stored in the memory of a computer
4. Unauthorized	d) the use of flexible computer-aided manufacturing systems to produce custom output
5. Customization	e) not having official permission

Software issues and trends

Task 1. Comprehension questions.

- 1. What has received an increased attention? Why?
- 2. Why do most software bugs arise?
- 3. How can licensing provisions vary?
- 4. It is considered that open-source software is often more reliable than commercial software. How can it be?
- 5. What do many software users do to minimize software costs?

Task 2. Say whether the statements below are true or false.

1. Software bugs can be obvious and subtler. Obvious software bugs allow errors to creep into your work. Subtler software bugs cause the program to terminate unexpectedly.
2. Registration and activation sometimes put software on your hard disk that monitors activities and changes to your computer system.
3. Getting support for traditional software packages is easy. You call a company's toll-free support number or access its Web site.
4. As a rule the revised software offers new and valuable enhancements.
5. Whatever approach individuals and organizations take to acquire software, it is important for everyone to be aware of the current trends in the industry.

Task 3. Fill in the gaps with the appropriate words from the box.

Software bugs, global software support, open-source software, a fine line, the current trends, the source code, copyright, software upgrades, public domain software, software development

1. Although the decision of when to release new software is based on ..., the industry clearly favors releasing software early and with defects.
2. Most software products are protected by law using ... or licensing provisions.
3. Most ... arise because manufactures release new software as early as possible instead of waiting until all bugs are identified and removed.
4. As usual ... is often more reliable than commercial software.
5. Some shareware and freeware is in the public domain, often called It is not protected by copyright laws and can be freely copied and used.
6. Shareware, freeware, and public domain software is often not open source – that is, ... is not available and cannot be modified.
7. The use of the Internet to spur development of open-source software has led to extending ... beyond a single organization by finding others who share the same problem and involving them in a common multi-organizational software development effort.
8. After all, software companies make money on
9. Providing ... is one of the biggest challenges IS teams face.
10. Whatever approach individuals and organizations take to acquire software, it is important for everyone to aware of ... in the industry.

Task 4. Find the words in the text that correspond to the following definitions.

1) software that is freely available to anyone in a form that can be easily modified;

2) software that is very inexpensive or free, but whose source code cannot be modified;

3) a defect in a computer program that keeps it from performing in the manner intended;

4) software that is not protected by copyright laws and can be freely copied and used;

5) the revised software that offers new and valuable enhancements; versions with significant improvements or capabilities; newer software with some vital new features.

Task 5. Points for discussion.

1. Do you know how to deal with software bugs? Can you give some pieces of advice for reducing the impact of software bugs?

2. Could you explain why software manufactures want to license their software? Describe the main types of software licenses underlying their features and advantages.

3. What are the advantages of open-source software? Give some examples.

4. Share your ideas on the purposes of multi-organizational software development?

5. Would you explain whether the vendors can provide the adequate support for their software customers in all locations? Share your ideas with the colleagues and give the examples.

Task 6. Match the words with their definitions.

1. Licenses	a) licensing provisions
2. Customers	b) people who buy things
3. A code	c) a bug
4. Manufacturers	d) that which incites or encourages a person
5. Upgrade	e) sum of money paid as a penalty for breaking a law or rule
6. Incentive	f) those who manufacture things
7. A fine	g) raise to a higher grade
8. A defect	h) charge or payment for professional advice or services
9. Copyright	i) software instructions or system of signs
10. A fee	j) written or printed statements giving permission from someone in authority to do something

An overview of management information systems

Task 1. Comprehension questions.

1. Is the main advantage of MISes in providing the right information to the right people at the right place?
2. How did the U.S. military coalition in Iraq use a MIS?
3. Do MISes provide managers with information in reports?
4. How do business transactions enter the organization?
5. What does the use of MISes span?
6. What sources do data that enter a MIS originate from?
7. What are the most significant internal and external data sources?
8. What do companies use for valuable business information storage?
9. What do external data sources include?

Task 2. Say whether the statements below are true or false.

1. Management information systems can provide companies with an additional advantage.
2. The use of MIS can produce getting insight into the regular operations of the organization.
3. The information that managers are provided with is typically in email.
4. The use of MISes spans all levels of controlling.
5. Both internal and external sources make up the data that enter a MIS.
6. The most significant external data sources for a MIS are the organization's various TPS and ERP systems.
7. Business intelligence can be used to turn a database into useful information.

Task 3. Fill in the gaps with the appropriate words from the box.

Spans, satellite mapping, originate, insight, data warehouse & data marts, business intelligence, external sources

1. The primary purpose of a MIS is to help an organization achieve its goals by providing managers with ... into the regular operations of the organization.
2. The MIS used global positioning systems, ... and surveillance.
3. The use of a MIS ... all levels of management.
4. Companies also use ... and ... to store valuable business information.
5. ... can be used to turn a database into useful information throughout the organization.

6. ... of data can include customers, suppliers, competitors and stockholders.

7. Data that enters a MIS ... from both internal and external sources.

Task 4. Find the words in the text that correspond to the following definitions.

1) the ability to understand and think about things and to gain and use the knowledge;

2) a general term for the computer systems in an enterprise that provide information about its business operations;

3) an asset, material or capital which can be used to accomplish a goal;

4) a process in which the effect or output of an action is "returned" to modify the next action;

5) graphical representation of a procedure, process or system that depicts arrangement of and relationship among its different components;

6) knowledge in the form of perspective, understanding or deduction.

Task 5. Points for discussion.

1. MISes should be developed further to use them only for military operations.

2. MIS usage will help in exploitation of GPS, satellite mapping and surveillance.

3. The importance for the right person to be provided with the right information in the right fashion at the right time.

4. A MIS is said to be the only source of managerial information.

5. Problems companies are faced with the necessity of storing valuable data.

Task 6. Match the words with their definitions.

1. Report	a) the position of something compared to others
2. Level	b) a document containing information organized in a narrative, graphic or tabular form
3. Source	c) entire network of entities directly or indirectly interlinked and interdependent in serving the same customer or consumer
4. Supply chain	d) place from where things originate
5. Database	e) systematically organized or structured depository of indexed information that allows easy retrieval, updating and output of data

Outputs of a management information system

Task 1. Comprehension questions.

1. What is the other name for a collection of reports that are distributed to managers?
2. What example of MIS use by Kodak can you give?
3. How do management reports from various company databases come?
4. What does database mining provide?
5. What kinds of reports are produced during sifting by a company a vast amount of data stored in databases, etc?
6. How often are scheduled reports produced?
7. What activities can scheduled reports help managers do?
8. What are demand reports like? Give some examples of these reports use.
9. When are exception reports produced? Give some examples of their use.
10. What reports help provide increasingly detailed data about a situation and develop better plans, make better decisions? Give examples.

Task 2. Say whether the statements below are true or false.

1. A MIS can be used by companies to send important sales information to its sales representatives.
2. Some companies are good at collecting data but not very good at sharing and updating that data.
3. A company has no resources to sift through a vast amount of data stored in database.
4. Scheduled reports can help managers control total payroll costs.
5. A large German drug company uses a variety of reports to respond rapidly to changing market conditions.
6. A key-indicator report can summarize inventory levels, production activity, sales volume and the like.
7. Demand reports are generated if somebody wants to know particular information.
8. If a situation requires management action then exception reports are produced.
9. Drill-down reports provide analysts with data at a high level.

Task 3. Fill in the gaps with the appropriate words from the box.

Data mining, performance, data warehouse & data marts, sift, drill down, inventory level, demand reports, exception reports, detailed

1. Management reports can come from various company databases through
2. Data mining allows a company to.... through a vast amount of data stored in ... and
3. Scheduled reports can help managers control customer credit, the ..., inventory level and more.
4. Managers can ... into more levels of details to individual transactions if they want.
5. A key-indicator report can summarise ... production activity, sales volume and the like.
6. Suppliers and customers can also use
7. ... are also used to help fight terrorism.
8. Drill-down reports provide increasingly ... data about a situation.

Task 4. Find the words in the text that correspond to the following definitions.

- 1) an information scheme for the collection, storage, retrieval and modification of transactions;
- 2) an accounting-oriented, relational database based on multi-module but integral software system;
- 3) computer-based techniques used in spotting, digging-out and analyzing "hard" business data;
- 4) a business that provides coverage in the form of compensation resulting from loss, damages, injury treatment in exchange for premium payment;
- 5) a restricted network of computers that allows controlled access to a firm's internal information to authorized outsiders.

Task 5. Points for discussion.

1. Any company using a MIS can achieve effective results.
2. Is variety of reports that allow companies to respond rapidly to changing market conditions an advantage or disadvantage?
3. A MIS requires further improvements.
4. Exception reports are essential for improving customer service.
5. What does overlapping of reports lead to?

Task 6. Match the words with their definitions.

1. Data mining	a) scaled-down & simplified version of a warehouse more suitable for smaller organization
2. Data warehouse	b) current amount of product that a business has in stock
3. Data mart	c) total amount required to pay workers and employees during a week, a month or else
4. Payroll	d) a large store of data accumulated from a wide range of sources within a company
5. Inventory level	e) sifting through very large amount of data for useful information

**Functional aspects of the MIS.
Financial management information systems**

Task 1. Comprehension questions.

1. What are some of the traditional functional areas for the MIS?
2. What purpose is the Financial Services Authority in England spending about £24 million for?
3. What are two specialized financial functional systems of the MIS?
4. How is internal auditing performed?
5. Why do straight-through processing systems introduce backing?

Task 2. Say whether the statements below are true or false.

1. FMI System should be fully operational by 2014.
2. An internal audit is conducted to see how well the organization is meeting established company goals and objectives.
3. External auditing is performed by inside group.
4. Internal uses of funds include purchasing additional inventory.
5. Most financial MISes do not analyze historical and current financial activity.

Task 3. Fill in the gaps with the appropriate words from the box.

Investment, immediately, the performance, reveal, executives, cut, attempt, performed, the use, areas

1. Most organizations are structured along functional lines and
2. Other financial systems ... to detect stock-market frame and abuse.
3. They monitor and control ... of funds overtime.

4. Internal auditing is ... by individuals within the organization.
5. It can also ... false or misleading information.
6. A financial MIS provides financial information not only for ... but also for a broader set of people.
7. The new system should ... costs and be more efficient.
8. This system makes financial data ... available to shorten analysis turnaround time.
9. In some cases, the financial picture from an external auditing firm may not always completely reflect ... of the company.
10. Some companies rely on return on ... calculations.

Task 4. Find the words in the text that correspond to the following definitions.

- 1) criminal deception;
- 2) income;
- 3) to move steadily and continuously;
- 4) the money used in a particular country;
- 5) to buy.

Task 5. Points for discussion.

1. Explain how the MIS is divided.
2. Define the main functions of the FMIS.
3. Outline the spheres of the MIS activity.
4. Furnish the examples of fraud and stock-market abuse.
5. Outline the key problem of the article.

Task 6. Match the words with their definitions.

1. Tailored	a) an arrangement in which you pay money to a company and they pay money to you if some unpleasant happens to you
2. Available	b) to achieve the better result or standard
3. Improve	c) to have at one`s disposal
4. Insurance	d) buy, obtain, to develop
5. Acquire	e) cut, made in a particular way

Manufacturing management information system

Task 1. Comprehension questions.

1. What has the use of the Internet streamlined?
2. Where is computer-aided design (CAD) used?
3. Why are scheduling production and controlling inventory critical for any manufacturing company?
4. What is a flexible manufacturing system?
5. How are the results from quality control analyzed?

Task 2. Say whether the statements below are true or false.

1. Using specialized computer chips and tiny radio transmitters, companies can monitor materials and products through the entire manufacturing process.
2. The success of an organization can't depend on the manufacturing function.
3. Inventory control is minor key to the manufacturing process.
4. Managers can use a number of technologies to control and streamline the manufacturing process.
5. When the manufacturing operation is continuous, sampling can allow the producer or consumer to review one or more products.

Task 3. Fill in the gaps with the appropriate words from the box.

<i>Broken down, components, levels, measure, approach, identify, design, process, technologies, strides</i>
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1. For a continuous manufacturing process control charts are used to ... weight, volume, etc.
2. The use of computerized systems is emphasized at all ... of manufacturing process.
3. A flexible manufacturing system is an ... that allows manufacturing facilities to change from making one product to another.
4. Computer-integrated manufacturing uses computers to link the ... of the production process into an effective system.
5. The data from design and engineering can also be used to ... the problem with existing products.
6. Automotive companies use CAD to help ... new cars and trucks.
7. Manufacturing ... is becoming even more critical.

8. New ... could make this process easier.
9. Great ... have been made in developing cost-effective inventory control programs.
10. Once an order is received, it is ... into the inventory.

Task 4. Find the words in the text that correspond to the following definitions.

- 1) a person who takes part in a competition or contest;
- 2) to make something smaller in size;
- 3) referring to the whole of something;
- 4) to make certain that it happens or is in case;
- 5) wide, extensive.

Task 5. Points for the discussion.

1. Define the motion design and engineering.
2. Outline the key problem of Inventory Control.
3. Explain what process control means.
4. Identify quality control and testing.
5. Explain the difference between quality control and testing.

Task 6. Match the words with their definitions.

1. Tiny	a) the place of something which is the furthest of the middle
2. Edge	b) happening, being used or being done at the present time
3. Common	c) to give the permission
4. Current	d) extremely small
5. Allow	e) when someone or something is of the ordinary kind

Human resource management information systems

Task 1. Comprehension questions.

1. What are the first aspects of any human resource management information system?
2. How does the human resource plan reveal that additional personnel are required?
3. What jobs require very specific training for new employees?
4. What purpose do the employees often take computer-scored tests for?
5. Why do the employees leave a company?
6. What screens any job applicant very effectively?

Task 2. Say whether the statements below are true or false.

1. Companies seeking new employees recruiting often don't use computers to schedule efforts.
2. Distance learning is also a variable alternative to more traditional training.
3. When training is complete, employees don't take computer-scored tests to evaluate their mastery of skills and new material.
4. Employees are fired for poor performance or inappropriate behavior.
5. Most successful companies don't have well-developed account functions.

Task 3. Fill in the gaps with the appropriate words from the box.

To help, productivity, employees, to screen, involves, to assist, straightforward, to compare, presented, provide

1. Most medium and large organizations have computer systems ... with human resource planning.
2. The testing helps companies increase employees ... while reducing turnover.
3. Many companies now use the Internet ... for job applicants.
4. Scheduling people and jobs can be relatively ... or extremely complex.
5. Companies seeking new ... often use computers to schedule recruiting efforts.
6. Self-paced training ... computerized tutorials.
7. Increasingly managers must want to see data ... in a graphical form.
8. Salary can be used ... salaries with budget plans.
9. Outplacement services are offered by many companies ... employees make the transition.
10. Management information systems ... useful summary reports to help solve structured and business problems.

Task 4. Find the words in the text that correspond to the following definitions.

- 1) a person holding real property by private ownership;
- 2) the period of one's life after leaving one's job;
- 3) to realize in advance;
- 4) a formed written request for a job;
- 5) a report or description of an event or experience.

Task 5. Points for discussion.

1. Define the human resource management information system.
2. Explain why companies seeking new employees often use computers to schedule recruitment efforts.

3. Identify training and skill.
4. Explain how many companies now use the Internet to screen for job applications.
5. Define jobs requiring very specific training.

Task 6. Match the words with their definitions.

1. Option	a) the amount of something that is available
2. To improve	b) something that you hope to achieve
3. Curve	c) to make something better
4. Goal	d) a smooth, gradually bending line
5. Volume	e) one of a number of subjects which is chosen

Marketing management information systems

Task 1. Comprehension questions.

1. Why are companies developing Internet marketplaces?
2. What are the marketing research tools?
3. What is the purpose of marketing research?
4. Why is product success a direct function of the types of advertising?
5. How is the Internet changing the way that many companies think about marketing study?

Task 2. Say whether the statements below are true or false.

1. A loyal customer wants to do business with you again.
2. An airline cannot use a CRM System to notify customers about flight changes.
3. Customization and/or going maintenance of a CRM System can't be expensive.
4. Product development doesn't involve the conversion of raw material into finished goods.
5. Conventional methods of collecting data often cost millions of dollars.

Task 3. Fill in the gaps with the appropriate words from the box.

Factors, share, function, equipment, consider, the way, to produce, advertising, decisions, rise

1. The Internet is changing ... that many companies think about marketing researches.
2. Many factors, including plant capacity, labour skills, engineering factors and materials are important ... development decisions.

3. Right time, place and audience are important measures of effective
4. A company that is able to ... meaningful information about its products and services with its primary customers has a high degree of advertising.
5. Product pricing is another important and complex marketing
6. Information generated from quality-control programs can help workers locate problems in manufacturing
7. Some people, however, ..., Internet marketing research to be a nuisance or even harmful.
8. In many cases, a computer program analyses these various ... and selects the appropriate mix of labour.
9. Make-or-buy ... can also be made with the assistance of computer programs.
10. Today Internet advertising is again on the

Task 4. Find the words in the text that correspond to the following definitions.

- 1) to think about something carefully;
- 2) to predict, estimate in future;
- 3) large in the amount or degree;
- 4) a person, or thing, or circumstance causing inconvenience or annoyance;
- 5) to move rapidly downward throughout the air.

Task 5. Points for discussion.

1. Define customer relationship management programs.
2. Identify marketing research.
3. Explain how the Internet changes the way of thinking about marketing research.
4. Explain why richness and reach are important measures of effective advertising.
5. Outline product pricing.

Task 6. Match the words with their definitions.

1. Sensitive	a) to come up; to get closer
2. Refer	b) often; at short intervals
3. Exist	c) to talk about a particular subject or person
4. Frequently	d) to be present in the world as a real thing
5. Approach	e) showing understanding or awareness to other people

Components of a decision support system. The database. The model base. The dialogue manager

Task 1. Comprehension questions.

1. What is a dialogue manager? Who uses it and why?
2. What is the database management system used for?
3. What is a data-driven DSS? How does it work and what for?
4. What is the model base? Which functions does it perform?
5. What is Model Management Software (MMS)? What is it used for?

Task 2. Say whether the statements below are true or false.

1. A dialogue manager doesn't allow decision makers to easily access and manipulate the DSS and to use common business terms and phrases.
2. A data-driven DSS primarily performs quantitative analysis based on the company's databases.
3. A database management system can connect to internal databases to give managers more information and support.
4. The combination of internal and external database access gives a better understanding of the company and its environment to key decision makers.
5. The model base allows managers and decision makers to perform qualitative analysis only on external data.
6. AC Milan, a soccer league champion, uses a model-driven DSS to diminish injuries by 90 per cent.
7. The model base gives decision makers access to a variety of models so that they cannot explore different scenarios and see their results.
8. Upper-level decision makers are frequently less interested in the origin of information and its gathering process than that the information is both understandable and accessible.
9. The data-driven DSS can be used to contact thousands of customers who might be interested in an expensive flight.
10. A travel company in Europe uses a data-driven DSS to make better decisions to help increase costs and decrease efficiency.

Task 3. Fill in the gaps with the appropriate words from the box.

Problem-solving process, TPS, data, software agents, business intelligence, the Internet, managerial decision making, a data-driven DSS, communications, dialogue manager

1. A decision support system (DSS) is an organized collection of people, procedures, software, databases and devices working to support ... managerial decision making.
2. DSS characteristics include the ability to handle large amounts of
3. DSSs provide support assistance through all phases of the
4. The components of a DSS are the database, model base, ... and a link to external databases.
5. ... primarily performs qualitative analysis based on the company's databases.
6. The dialogue manager provides a dialogue management facility to assist in ... between the system and the user.
7. Data mining and ... are often used in a data-driven DSS.
8. External databases can include ..., libraries, government databases and more.
9. Access to the Internet, networks and other computer-based systems permits the DSS to tie into other powerful systems, including the ... function-specific systems.
10. The Internet ... can be used in creating powerful decision support systems.

Task 4. Find the words in the text that correspond to the following definitions.

1. Any set of machine-readable instructions (most often in the form of a computer program) that directs a computer's processor to perform specific operations.
2. A component of a dialog system (DS), responsible for the state and flow of the conversation.
3. A software system designed to allow the definition, creation, querying, update, and administration of databases.
4. A network of networks that consists of millions of private, public, academic, business, and government networks, of local to global scope, that are linked by a broad array of electronic, wireless and optical networking technologies.
5. A computer-based information system that supports business or organizational decision-making activities and serves the management, operations, and planning levels of an organization and helps to make decisions, which may be rapidly changing and not easily specified in advance.

Task 5. Points for discussion.

1. Define a decision support system. What are its characteristics?
2. Describe the difference between the data-driven and model-driven DSS. What future for both of them can you predict?

3. You have been hired to develop a DSS for a car company such as BMW or Lexus. Describe how you would use both data-driven and model-driven DSSes.
4. Describe four models of a decision support system.
5. What functions do decision support systems support in business organizations? How does a DSS differ from a TPS and a MIS?

Task 6. Match the words with their definitions.

1. The Internet	a) the production of financial records about an organization
2. A data warehouse	b) a software system designed to allow the definition, creation, querying, update, and administration of databases
3. Internet protocol	c) a data storage facility that is located at an independent site allowing multiple users to access it simultaneously
4. Inventory	d) a global system of interconnected computer networks that use the standard Internet protocol suite (TCP/IP) to serve several billion users worldwide
5. Accounting	e) a database used for reporting and data analysis; a central repository of data which is created by integrating data from one or more disparate sources
6. An external database	f) business that is transacted by transferring data electronically, especially over the Internet
7. E-commerce	g) something used to describe the goods and materials that a business holds for the ultimate purpose of resale (or repair)
8. Backbone	h) a communications protocol for computers connected to a network, especially the Internet, specifying the format for addresses and units of transmitted data
9. Legitimate	i) the primary high-speed hardware and transmission lines of a telecommunications network (as the Internet)
10. A database management system	j) in accordance with established rules, principles, or standards

An overview of decision support systems

Task 1. Comprehension questions.

1. What is a DSS?
2. What are the main tasks of a DSS?
3. What can a DSS be used for?
4. Name the main functions of a DSS.
5. Give a definition of the "what-if" analysis.

Task 2. Say whether the statements below are true or false.

1. DSSs are used to bring more structure and aid the decision-making process.
2. The decision support system offers a tangled web of complex rules, procedures, and decisions.

3. Managers can get the information they want, presented in a format that suits their needs.
4. Managers can use a DSS to get more detailed information for a project.
5. Spreadsheets can be used to perform the "what-if" analysis.

Task 3. Fill in the gaps with the appropriate words from the box.

<i>Output, stand-alone, simulation, potential, programmable</i>
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1. Managers at all levels are able to use DSSs to assist in some relatively routine, ... decisions.
2. ... can be displayed on computer screens or printed.
3. Many of the analytical programs associated with a DSS are actually ... programs and the DSS brings them together.
4. ... is the ability of the DSS to duplicate the features of a real system.
5. DSSs offer the ... to generate higher profits, lower costs, and better products and services.

Task 4. Find the words in the text that correspond to the following definitions.

- 1) the potential or suitability for holding, storing, or accommodating;
- 2) to have overall responsibility for supervising or directing;
- 3) highly complicated or developed;
- 4) written programs, procedures or rules and associated documentation pertaining to the operation of a computer system and stored in the read/write memory;
- 5) performance of something required or expected.

Task 5. Points for discussion.

1. What are the characteristics of a Decision Support System?
2. State the objectives of a DSS.
3. State the difference between the "what-if" analysis and the goal seeking analysis.
4. Name the main components of a DSS. What are their functions?
5. Describe four models used in a decision support system.

Task 6. Match the words with their definitions.

1. Grid computing	a) the quality of being adaptable or variable
2. To harness	b) instead of
3. Inherent	c) involved in the constitution or essential character of something
4. In lieu of	d) the collection of computer resources from multiple locations to reach a common goal
5. Flexibility	e) to bring under control and direct the force of smth

Self-assessment test

1. Databases also help companies to generate ... to reduce costs and increase profits.

- A)** standards **B)** information **C)** issues

2. The ability of an organization to gather data, interpret it, and act on it quickly can distinguish winners from losers in a highly competitive

- A)** workforce **B)** workplace **C)** marketplace

3. Together bits, characters, fields, records, files, and databases form the ... of data.

- A)** tower **B)** castle **C)** hierarchy

4. The primary ... is used to distinguish records so that they can be accessed, organized, and manipulated.

- A)** key **B)** lock **C)** pool

5. Data item is the specific value of an attribute and can be found in the ... of the record describing an entity.

- A)** paths **B)** fields **C)** passages

6. Most DBMSs have software that makes it easy to access and retrieve data from a

- A)** circuit **B)** model **C)** database

7. Data ... is the degree to which the data in any one file is accurate.

- A)** integrity **B)** integration **C)** management

8. The functions of a DBMS include data storage and ..., database modifications, data manipulation, and report generation.

- A)** innovation **B)** transaction **C)** retrieval

9. The logical design of a database involves identifying ... among the different data items and grouping them in an orderly fashion.

- A)** relationships **B)** trend **C)** passages

10. In-memory databases use a computer ... instead of a hard disk.

- A)** code **B)** memory **C)** password

11. Schemas and subschemas are entered into the ... via a data definition language.

- A)** TCP/IP **B)** CPU **C)** DBMS

12. The purpose of OLTP databases is to ... transaction processing.

- A)** support **B)** proceed **C)** telecommute

13. Distributed databases allow more users direct ... to different sites.

- A)** support **B)** transaction **C)** access

14. With the approach of object-oriented ..., both the data and the processing instructions are stored in the database.

- A)** ensuring **B)** programming **C)** gaming

15. Open-source ... can cut the cost of software acquisition.

- A)** spending **B)** software **C)** transfer

16. The lead ... team is a group of skilled IS professionals.

- A)** manager **B)** administrator **C)** programmer

17. User software includes the general-purpose ... and programs that support individual needs.

- A)** tools **B)** browsers **C)** documents

18. If an enterprise wants to correspond to the modern market, it should use integrated ... systems.

- A)** application **B)** information **C)** data

19. Registration and activation sometimes put software on your hard ... that monitors activities.

- A)** disk **B)** field **C)** batch

20. Getting support for traditional software packages is easy. You call a company's support ... or access its Web site.

- A)** hyperlink **B)** link **C)** number

21. Whatever approach individuals take to acquire software, it is important to be aware of the current ... in the industry.

- A)** vacancy **B)** post **C)** trends

22. Management information systems can ... companies with additional advantage.

- A)** provide **B)** give **C)** bring

23. MIS can be used by companies to send important sales information to its ... representatives.

- A)** streamlined **B)** sales **C)** computer

24. ... reports are generated if somebody wants to know particular information.

- A)** demand **B)** sales **C)** staff

25. An internal audit is conducted to see how well the organization is meeting established company ... and objectives.

- A)** goals **B)** updates **C)** fixes

26. Using specialized computer ..., company can monitor products through the entire manufacturing process.

- A)** memory **B)** storage **C)** chips

27. Distance ... is a variable alternative to more traditional training.
A) functioning **B) learning** **C) filing**
28. The combination of internal and ... database access gives a better understanding of the company to key decision makers.
A) external **B) outdoors** **C) outside**
29. DDB is able to turn terabytes of consumer data into useful business
A) development **B) intelligence** **C) brains**
30. Bit represents a ... that is either on or off.
A) base **B) circuit** **C) circle**
31. All records associated with a particular application can be collected and managed together in an ... file.
A) application- **B) special-purpose** **C) spatial**
specific
32. Software acts as a ... between the application programs and the database itself.
A) storage **B) buffer** **C) band**
33. The problem with data ... is the possibility that updates are accomplished in one file but not in another, resulting in a lack of integrity.
A) performance **B) integrity** **C) redundancy**
34. The main aspect of any database management ... is its integration with other databases and applications.
A) system **B) article** **C) object**
35. There are specialized database packages used for specific
A) timetable **B) purposes** **C) system**

Key to the self-assessment test

1 – B	2 – C	3 – C	4 – A	5 – B
6 – C	7 – A	8 – C	9 – A	10 – B
11 – C	12 – A	13 – C	14 – B	15 – B
16 – C	17 – A	18 – B	19 – A	20 – C
21 – C	22 – A	23 – B	24 – A	25 – A
26 – C	27 – B	28 – A	29 – B	30 – B
31 – A	32 – B	33 – C	34 – A	35 – B

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Glossary

Ad hoc – спеціальний, створений із певною метою, для певного випадку.

Back-end application – внутрішня, непомітна та недоступна користувачу програма, прихована за інтерфейсом користувача.

Batch processing – пакетне оброблення даних. Спосіб виконання завдань на комп'ютері, коли завдання запускаються послідовно, тобто кожна

наступна програма починає свою роботу тільки після завершення роботи попередньої.

Business intelligence – бізнес-аналітика. Оброблення комерційних даних із метою отримання лише ключових факторів ефективності, визначення проблем бізнесу та прийняття рішень щодо їх усунення.

CASE (computer-aided software engineering) – автоматизоване проектування. Комплекс комп'ютерних інструментів, які використовують спеціалісти, щоб створювати, змінювати, аналізувати та оптимізувати проекти у сфері інженерії, архітектури, будівництва тощо.

Competitive advantage – конкурентна перевага. Характеристики, особливості товару або марки, що роблять компанію унікальною і віддають їй перевагу над конкурентами.

Concurrency control – контроль за збігами (суперечливі запити до розподіленої бази даних).

Cross sell – кросс-продаж, перехресний продаж (метод торгівлі, за якого покупцю, що придбає якийсь товар, пропонують купити також інший товар, що доповнює перший, напр., придбання комп'ютера з одночасним укладанням договору про його обслуговування).

Data administrator – адміністратор даних. У невеликих фірмах цю посаду суміщають із посадою адміністратора БД, але останній має більш технічні за характером обов'язки.

Data dictionary – словник даних (список усіх файлів, полів та підставних, які використовують у певних СУБД).

Data mart – вітрина даних. Набір тематичних баз даних, що містять у собі інформацію, орієнтовану на окремі аспекти діяльності організації.

Data mining – добування даних. Сукупність методів визначення прихованих закономірностей або взаємозв'язків між змінними у великих масивах необроблених даних.

Data warehouse – сховище даних. Предметно-орієнтована інформаційна база даних, розроблена та призначена для оброблення інформації, підготовки звітів та бізнес-аналізу з метою підтримки прийняття рішень.

Debugging – налагодження програми. Етап розроблення програмного забезпечення, під час якого знаходять, локалізують та усувають помилки або дефекти в комп'ютерній програмі або електронному обладнанні.

Demand report – звіт за вимогою (запитом). Звіт, що використовують для вибірки взаємозв'язаних даних на основі введених параметрів.

Drill down – проникати всередину [глибше] (розглядати [проводити дослідження] у певній сфері більш детально з метою досягнення найбільш повних результатів).

Exception report – звіт про виняткову ситуацію. Звіт, що формують унаслідок виникнення незвичайного випадку, невідповідності або помилки (наприклад, бракованого виробу).

Flat file – однорідний файл, суцільний (плоский) файл, який складається з подібних записів, не пов'язаних між собою.

Front-end application – програми інтерфейсу користувача, клієнтська частина [системи]. У клієнт-серверних системах – частина прикладної програми, виконувана на комп'ютері клієнті.

GPS (global positioning system) – система глобального позиціонування. Такі системи надають цілодобову інформацію про тривимірне положення, швидкість та час для користувачів, що мають необхідне обладнання.

Hedge hunt – хеджевий фонд (інвестиційний фонд спекулятивного характеру, що займається операціями надзвичайного ризику).

Input – введення (ввід). Сигнал або дані, отримані комп'ютерною системою для оброблення.

Inventory – матеріально-виробничі запаси. Матеріальні ресурси компанії, що забезпечують безперервність виробництва та обігу.

Management information system (MIS) – інформаційна керівна система. Сукупність обладнання та програмного забезпечення, за допомогою яких керівники організації отримують інформацію, яка є необхідною для прийняття ними ефективних рішень.

Online transaction processing (OLTP) – оперативне оброблення транзакцій. Уведення, зберігання і оброблення інформації (документів, операцій) у режимі реального часу. Переважає в інформаційних системах організаційного управління для відображення актуального стану роботи організації.

Open-source software – програмне забезпечення з відкритим вихідним кодом. Вихідний код такого програмного забезпечення є у вільному доступі для всіх користувачів, що дозволяє користувачеві змінювати його, дорацьовувати і навіть створювати нові програми на основі цього коду.

Output – виведення (вивід). Сигнал або дані, надіслані комп'ютерною системою про результат роботи.

Payroll – розрахунковий лист. Документ, у якому зазначена загальна сума заробітної платні, її складові частини, всі податки та інші відрахування.

Proprietary software – власницьке програмне забезпечення. Власник такого програмного забезпечення зберігає за собою право монополії на його використання, копіювання та модифікацію.

Raw data – необроблені дані ("сирі"). Формат даних, які були здобуті в результаті дослідження, але не пройшли етап кодування, перетворення або аналізування.

Satellite mapping – топографічна супутникова зйомка. Здійснюється для того, щоб скласти топографічні карти, плани місцевості або здобути іншу топографічну інформацію.

Scheduled report – плановий звіт (балансовий). Звіт, що містить у собі інформацію про фінансовий стан (активи, пасиви, капітал) компанії на визначений термін.

Software life cycle – життєвий цикл програмного забезпечення. Стадії процесу, що охоплюють різні етапи системи, починаючи з моменту прийняття рішення щодо створення програмного продукту та закінчуючи моментом його повного вилучення з експлуатації.

Software package – пакет програм. Комплекс спеціалізованих програм, призначених для вирішення завдань певного класу.

Time-sheet – таймшит, акт обліку часу зупинки (документ про облік часу зупинки судна під вантажними операціями).

Wizard – майстер (програма-розробник, яка генерує програмні елементи із заданими властивостями).

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