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ІМЕНІ В. Н. КАРАЗІНА

ІТ-ПРОСТІР СЬОГОДЕННЯ: ТЕНДЕНЦІЇ, ІННОВАЦІЇ ТА ПЕРСПЕКТИВИ РОЗВИТКУ

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конференції

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Редакційна колегія:

д-р. екон. наук, проф. Б. В. Самородов (головний редактор);
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к-т. пед. наук, доц. Н. І. Стяглик;
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к-т. екон. наук, доц. Н. Л. Морозова;

Адреса редколегії:

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MINISTRY OF EDUCATION AND SCIENCE
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**IT-SPACE OF TODAY:
TRENDS, INNOVATIONS
AND DEVELOPMENT PROSPECTS**

Collection of abstracts
of the II International Scientific and Practical
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.

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4 Svobody Square, Kharkiv, 61022, Ukraine

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Skorin Yuriy

*Candidate of Technical Sciences, Associate Professor
Kharkiv National Economic University. S. Kuznets, Ukraine*

Khusainov Nikita

*Student
Kharkiv National Economic University S. Kuznets, Ukraine*

DEVELOPMENT OF A WEB APPLICATION FOR ACCOUNTING FOR DEMAND FOR TRAVEL SERVICES

The purpose of the study is to create a business model that would allow: automate the accounting process, analyze and forecast the demand for travel services in the travel agency system. The application should allow: registration of user requests, storage of data on destinations and categories of travel services, filtering requests, generating reports and multi-level authorization for users of different roles.

The sphere of modern tourism services is changing quite rapidly under the influence of computerization of various sectors of the economy, this also applies to the promotion of services, as well as demand accounting, in particular internal information management. Once upon a time, managers of tourist organizations manually or with the help of fairly simple tables tracked the execution of orders and the interests of customers, which, as a rule, led to problems with the speed of analyzing trends and formulating subsequent strategic decisions. The growth of competition in the market necessitates the development of a specialized system for automating the accounting of demand for tourist services. The demand of tourists depends on factors such as: seasonal changes, political stability, economic situation, availability of infrastructure, weather conditions, local events, cultural holidays and epidemic risks. The developed system, which takes into account all the listed variables and allows you to track changes in demand over time, should significantly improve the efficiency of travel companies. An important element of such a system is the logic and structure of collecting information about potential customer requests. Any request from a potential client should be a source of valuable information that should be used if properly systematized and processed. Conducting such an analysis should reveal the following important patterns, namely: which tourist destinations will be popular at certain times of the year, or how the average budget of clients for trips has changed, or which categories of clients should most often contact the agency, or which tourist services are most in demand, etc. Traditional CRM systems often turn out to be too complex or impractical, impractical for small travel agencies. In this case, it is more convenient to use a certain specialized solution that is focused on analyzing demand. The above system is best suited for the needs of a specific, especially small business. The above logic is used in the development of a certain web application. Significant automation of the process of accounting for the demand for travel services, in fact, will allow you to quickly enter data, process it, store it in a clear structure and receive final statistics or dynamic analysis in the form of certain

filters and reports. The above system should take into account such basic parameters of requests as the country and city of destination, the number of people, the expected budget, the desired departure and return date, the tour category, the duration of the trip, etc. In the future, this system can be added to a mobile application or web platform for potential users, but during the development period, the main attention should be paid to internal accounting. As a result, it allows you to improve analytical functions, configure filtering logic, reporting, support various user roles (manager, analyst, administrator), etc. A review of existing information showed that there is still no sufficiently simple, specialized system on the market that would be responsible only for tracking requests and demand for tourist services without unnecessary functions. This necessitates the creation of a new tool that is easy to use, will effectively store information and provide convenient and simple analysis, meeting the needs of the Ukrainian tourism business.

The purpose of the study is to create a business model that would automate the process of accounting, analyzing and forecasting the demand for travel services in the system of a small travel agency. Both commercial software products and scientific articles devoted to the automation process in the field of tourism and related industries were analyzed. The analysis proved that booking platforms usually do not store the expected requests or only provide managers with limited access to certain analytics, which, in turn, greatly complicates the analysis of real demand. In addition, full-fledged CRM systems are often superfluous for a small or medium-sized travel office, since they have a rather complex interface, and also require a whole team for training, support costs, and, importantly, rarely allow you to create analytical reports without the participation of an experienced programmer. The developed software is intended for internal use in travel agencies and companies that satisfy many individual customer requests. The main feature of this software is the emphasis not on booking, but on accounting, saving and analyzing requests. These circumstances create unique value for small and medium-sized businesses, where there is no need for complex systems or large-scale services with booking integration. Thus, the developed software occupies a unique place, because it combines: simplicity, practical organization of accounting for customer requests, targeted analytics, which makes it advisable for small and medium-sized structures that seek to organize processes with minimal costs. The developed software product is able to solve an urgent problem, namely the problem of the lack of a centralized tool for registration, processing and analysis of demand for travel services.

Main business advantages: relevance; transparency of management; the ability to scale and adapt; automation of routine processes; impact on business; creation of an analytical resource. Analysis of the overall test results of the software product allows us to conclude that the product meets most of the requirements formed at the specification stage. The system successfully passed the test both for the correctness of basic functions and for compliance with non-functional characteristics, namely: stability, performance, ease of use. Considerable attention was paid to the design of the interface, database structure and architecture in general, which significantly reduced the number of critical errors, even at the stage of internal testing. The assessment of the quality of the software took into account not only technical criteria,

but also subjective ones, in particular, such as the impressions of testers, managers and potential users.

The analysis proved that the developed software product has an intuitive interface, clear logic of actions, and also allows you to work with a certain amount of information quite efficiently. The filtering module was also especially positively evaluated, which allows you to quickly get the desired sample from the query database. During testing, possible areas for further refinement of the software product were also identified. The main ones are: automatic formation of dashboards in real time, expanding the capabilities of visualization of statistics, creating a mobile version of a web application, as well as integration with external APIs of booking services or CRM.

The study was carried out in several stages:

- the data model, project architecture and database structure are built;
- the analysis of the subject area was carried out; the analysis of functional and non-functional requirements was carried out;
- the main modules of the web application were implemented, which have a user-friendly interface; testing was carried out, which confirmed the operability and readiness of the system for implementation.

In conclusion, it should be added that the results of the study are not only theoretical, but also practical, which is important for the further use of the software product in the field of automation of tourist services.

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Skorin Yuriy	
APPLICATION OF THE MECHANISM OF INTEGRATION OF THE AUTOMATED BANKING SYSTEM WITH MONEY TRANSFER SYSTEMS.	201
Skorin Yuriy	
APPLYING AI TECHNIQUES TO CREATE TYPICAL WEB APPLICATIONS.	204
Skorin Yuriy	
DEVELOPMENT OF AN INFORMATION SYSTEM FOR DISTANCE LEARNING TO SUPPORT THE PROCESS OF STUDYING HISTORY.....	207
Skorin Yuriy	
DEVELOPMENT OF THE MODULE "SOFTWARE TESTING" OF THE PROJECT MANAGEMENT INFORMATION SYSTEM.	210
Skorin Yuriy	
IMPROVING THE INFORMATION SYSTEM OF A LOGISTICS COMPANY BY IMPLEMENTING TELEGRAM BOTS.	213
Skorin Yuriy	
INTELLIGENT METHODS FOR DIALOGUE SYSTEMS WITH NATURAL LANGUAGE INTERFACE.	216
Skorin Yuriy	
NEURAL NETWORK IMPLEMENTATION OF SOLVING DISCRETE OPTIMIZATION PROBLEMS.	219
Skorin Yuriy	
USING NEURAL NETWORK AND DATA VISUALIZATION ALGORITHMS FOR MEDICAL ANALYSIS.	222
Skorin Yuriy, Gerasimova Victoria	
DEVELOPMENT OF A WEB APPLICATION TO SUPPORT THE PROCESS OF LEARNING FOREIGN LANGUAGES.	226
Skorin Yuriy, Khusainov Nikita	
DEVELOPMENT OF A WEB APPLICATION FOR ACCOUNTING FOR DEMAND FOR TRAVEL SERVICES.	229
Skorin Yuriy, Koltsova Elizaveta	
DEVELOPMENT OF A WEB APPLICATION FOR ACCOUNTING FOR ORDERS IN A FLOWER SHOP.	232
Skorin Yuriy, Mizyak Denys	
ANALYSIS OF APPROACHES TO THE CONSTRUCTION OF ELECTRONIC DOCUMENT MANAGEMENT SYSTEMS.	235
Skorin Yuriy, Shchur Vitaliy	
DEVELOPMENT OF A WEB APPLICATION FOR TRACKING POSTAL TRANSPORTATION.	238

Електронне наукове видання
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Можна використовувати в локальному та мережному режимах

ІТ-ПРОСТІР СЬОГОДЕННЯ: ТЕНДЕНЦІЇ,
ІННОВАЦІЇ ТА ПЕРСПЕКТИВИ РОЗВИТКУ

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