

Of course, there are also risks such as technical difficulties, for example, unstable internet, etc.; information overload; high cognitive fatigue during prolonged online work; insufficient development of communication skills in some formats.

Regardless, interactive technologies continue to evolve and develop in the following directions: the use of artificial intelligence (personalization of learning, automatic assessment), the introduction of virtual and augmented reality, which will ensure the creation of a full-fledged learning environment. It is also proposed to perform data analytics to monitor educational outcomes and to conduct microlearning in the format of short video lessons with interactive elements.

Conclusion. Interactive technologies are not just a tool to support distance learning, but its very foundation. They create an active educational environment in which knowledge is acquired through collaboration, creativity, and dialogue. Their proper implementation allows not only for effective assimilation of material, but also for the formation of key competencies of the 21st century — critical thinking, communication, creativity, and collaboration. The main task remains their conscious and methodically justified use.

REFERENCES

- [1] *Vidkryta ta dystantsiina osvita: vid teorii do praktyky*, Proceedings of the III All-Ukrainian Electronic Scientific and Practical Conference, Kyiv, Ukraine, Sep. 27, 2018, L. L. Liakhotska, S. P. Kas'ian, S. V. Antoshchuk, and T. I. Siabruk, Eds. Kyiv: DVNZ "University of Education Management" of the NAES of Ukraine, 2018, 166 p.
- [2] O. M. Hramm, *Interaktyvni metody navchannia*, O. M. Kravchenko, Ed. Kryvyi Rih: Osnova, 2020, 131 p.

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TASKS AND PROJECT MANAGEMENT FOR THE PURPOSE OF OPTIMIZING PROJECT MANAGEMENT PROCESSES

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The purpose of the research is to develop a system for automated analysis of user feedback based on natural language processing methods to detect tone, key aspects and topics. The object of the research is the processes of processing and analyzing user feedback in a digital environment. The subject of the research is natural language processing methods and models for automating the analysis of text feedback. The research methods include machine learning, deep neural networks, statistical methods of text analysis and methods for assessing the quality of models. Classical algorithms, neural network models and transformer architectures are used. The statistical significance of the results was experimentally confirmed and recommendations for choosing models for various scenarios were developed. The research results can be used in e-commerce, service companies, software development, marketing and analytics to automate the analysis of feedback and identify trends in large arrays of text data.

The purpose of the research is to develop a modern web application for task and project management, which will help optimize project management processes, increase the efficiency of teamwork and transparency of task performance. The object of the research is: a web application for project management that supports authentication, sprint planning, task and participant management. The subject of the research is: development of modules for user authentication, management of profiles, projects, sprints and tasks using modern web technologies. The design method is structural and functional analysis, component modeling, development using the server-side component rendering approach. An analysis of the subject area was conducted, analogues were studied, their advantages and disadvantages were identified, the concept of the application was created and its functionality was

implemented. The web application supports registration and authentication via email and social networks, multi-factor authentication, profile editing, creation and management of projects, sprints, and tasks, and most importantly, it can be used by teams for effective project management.

Statement of the problem.

In today's world, project management is a key aspect of successful organizations. Optimizing project management processes with the help of modern technologies allows you to increase the efficiency of teamwork, ensure transparency in task performance, and achieve set goals within the established deadlines.

The development of web applications for project management is becoming increasingly relevant, as such tools help teams plan, track, and coordinate their activities in real time. The goal of the research is to create a web application for project management that will provide a convenient and effective tool for organizing teamwork, planning sprints, creating and tracking tasks, and managing project participants.

To implement this project, a modern technology stack was used: Typescript, Next.js for the frontend, Supabase as a backend platform.

The work includes analyzing existing solutions in the project management market to determine their advantages and disadvantages, as well as developing and implementing new features that will improve the user experience and efficiency of the system.

Before the development began, planning was carried out: a set of functional and non-functional requirements was created, a logical and physical database model was developed, as well as UML diagrams of use cases and activities.

Figma technology was used to plan the visual part. After the application is implemented, testing will be conducted to verify that all functional requirements are met correctly and there are no errors.

The main functionalities of the web application include:

1. registration and authentication: users can create accounts through email or social networks, log in and enable multi-factor authentication for increased security;
2. profile management: ability to edit personal data and avatar;
3. creation and configuration projects: users can create projects, add logos, choose a project type, and change parameters;
4. member management: ownerThe project can invite new participants by email and remove existing ones.
5. planningsprints: creating sprints with a goal, description, start and end dates;
6. task management: creation, editing, generation of task descriptions using language model, filtering and assignment of tasks within sprints with parameters: name, description, type, status, performer, time estimate.

The process of developing a web application for project management to optimize project management processes involves creating a comprehensive solution. The main aspects of the task include developing functionality for organizing teamwork, planning sprints, managing tasks and project participants, as well as providing a convenient and intuitive interface. Thus, the goal of the web application is to provide teams with a simple and effective tool for project management, which will help increase productivity, transparency of task execution, and optimize workflows.

Presentation of the main material.

In the field of project management, there is a wide range of software tools that help teams effectively plan, execute, and monitor projects. The research examined popular alternatives such as Jira, Trello, Asana, and Monday.com in detail. Each of them has its own unique features that suit different team needs, project types, and budgets. Extensive descriptions were provided, including advantages and disadvantages. The choice between these tools depends on the needs of the team, the complexity of the projects and budget, as well as how much time you are willing to spend on mastering them.

Since all the functions of the web application are performed directly through the browser, users do not need to install additional software on their devices. This greatly simplifies the process of implementing and using the system for managing tasks and projects. To get started, it is enough to open a modern web browser, go to the application URL and wait for the page to load. After that, the user can immediately start working with the functionality, in particular, create projects, form sprints, add tasks and assign performers.

Conclusions.

As part of the research, a modern web application Sprintly for project management was developed, aimed at optimizing project management processes. The relevance of the work is due to the growing need for effective tools for organizing teamwork, planning sprints and managing tasks in the conditions of dynamic development of information technologies and the IT industry. The developed application meets modern requirements for computer information systems, providing flexibility, transparency and automation of routine processes.

The practicality of the research is the possibility of implementing the developed application in IT companies, startups, educational institutions and other organizations that require effective project management. The application allows you to increase the transparency of teamwork, optimize the planning of sprints and tasks, and also reduce the time for performing routine operations through automation. The results of testing the functional requirements confirmed the operability and compliance of the system with the specifications, which indicates its readiness for practical use.

In further research, it is planned to expand the functionality of the application, in particular, adding analytical reports, integration with artificial intelligence tools for predicting task completion times, and support for a multilingual interface.

REFERENCES

1. Kondratiev Oleksandr. Development of a web application for task and project management in order to optimize project management processes / O. Kondratiev // Materials of the International Scientific and Practical Conference of Young Scientists, Postgraduate Students and Students "Information Technologies in the Modern World: Research of Young Scientists": abstracts, February 27–28, 2025 – Kh.: Semen Kuznets KhNEU, 2025. – P. 4.2.
2. How to create a backend using Supabase [Electronic resource] / Coding Academy // YouTube. codeacademyua. – Electronic video data. – Access mode: https://www.youtube.com/watch?v=ae2Eaz_zEqQ
3. Project Management Institute – Learn about project management standards and certifications [Electronic resource] // PMI. – Access mode: <https://www.pmi.org>.
4. Supabase – The open source Firebase alternative [Electronic resource] // Supabase. – Access mode: <https://supabase.com>.
5. Tailwind CSS – Rapidly build modern websites without ever leaving your HTML [Electronic resource] // Tailwind CSS. – Access mode: <https://tailwindcss.com>.
6. React – A JavaScript library for building user interfaces [Electronic resource] // React. – Access mode: <https://reactjs.org>.
7. React for beginners – a course in Ukrainian [Electronic resource] / IT Ukraine // YouTube. itukraine. – Electronic video data. – Access mode: <https://www.youtube.com/watch?v=Gp7d4AAe5gI>.

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ФІЛОСОФСЬКІ АСПЕКТИ ВІРТУАЛЬНОЇ РЕАЛЬНОСТІ: ОНТОЛОГІЧНИЙ, ЕПІСТЕМОЛОГІЧНИЙ ТА ФЕНОМЕНОЛОГІЧНИЙ АНАЛІЗ

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Досліджено філософські аспекти віртуальної реальності. На основі класичних та сучасних філософських ідей (Платон, Декарт, Бодрійяр) аналізується вплив віртуальної реальності на наше сприйняття реальності. У роботі розглядаються онтологічні (природа «реальності» у віртуальному просторі), епістемологічні (достовірність знань) та феноменологічні (трансформація понять простору, часу та ідентичності) виклики. Зроблено висновок, що