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O. Haitan, Senior lecturer,
D. Shirai, Student of the 401-TN group,
National University «Yuri Kondratyuk Poltava Polytechnic»

DEVELOPMENT OF AN INTERACTIVE EDTECH PLATFORM WITH VISUAL LEARNING TOOLS FOR FOREIGN LANGUAGE LEARNING TO ENHANCE THE EFFICIENCY OF THE EDUCATIONAL PROCESS.

In modern times, knowledge of foreign languages has become a key competence for personal development, professional fulfillment, and global communication. Considering this, the educational process is embracing digitalization, which involves introducing innovative technologies that make learning more efficient, interactive, and personalized.

Traditional educational methods often do not meet the needs of the modern generation, which is increasingly engaged with visual content, flexible access, and a high level of interactivity. This is especially true for language learning, where visibility, repetition, contextual vocabulary, and quick feedback are essential.

The study aims to develop a new generation EdTech platform – interactive, visually oriented, adaptive to the user's level, and capable of providing a full educational experience and accelerating foreign language learning.

The first stage of the research consisted of collecting and analyzing modern methods of learning the material, considering different types of EdTech platforms and their features. Particular attention was paid to the use of visual learning tools and their impact on the effectiveness of learning lexical and grammatical material.

The second stage of work consisted of selecting the relevant technologies for building an EdTech platform. In particular, we considered the Next.js framework [1], the MongoDB database [2], and the TailwindCSS CSS framework [3].

Next.js is a modern web application development framework based on the React library that provides server-side rendering (SSR) [4], routing, performance optimization, and easy integration with APIs. It is widely used to

create fast, scalable, and SEO-optimized web projects, including EdTech platforms.

MongoDB is a non-relational database that stores data in the form of documents. It is designed to handle large volumes of constantly changing data, which is ideal for EdTech platforms where learning data is constantly changing.

The third stage of work included the implementation of the platform based on the Next.js framework. The entire functionality of the interactive EdTech platform for learning foreign languages is built with the needs of both the end user and the administrator in mind. The main goal is to provide effective, flexible, and visually supported learning that increases user engagement and the quality of learning.

One of the key features of the platform is the ability to identify the user, which allows for a personalized learning environment. On the platform, users have the opportunity to create their lists of words on different topics, such as Food, Travel, or Work. This allows them to flexibly organize new vocabulary according to their needs.

The platform's grammar module contains both theoretical and practical materials grouped by topic. Each topic is presented in a user-friendly format, with brief explanations, illustrative examples, and interactive exercises to help you learn the material better.

Flashcards are one of the platform’s key tools for effectively learning new vocabulary. They present the words in a convenient, interactive format, which helps to improve memorization. Users can create their flashcards based on their personal vocabulary lists, allowing them to tailor their learning to their own needs.

The platform also has a quiz module that allows users to test their knowledge in an interactive way, which significantly speeds up the learning of new material. Vocabulary quizzes include tests on choosing the correct translation, using the word in context, and determining its meaning. Grammar quizzes are aimed at testing the knowledge of grammatical rules – the user is asked to choose the correct form of a word, build a sentence, or choose the correct grammatical construction.

The development of an interactive EdTech platform with visual learning tools for learning foreign languages has great potential to improve the efficiency of the learning process. Thanks to interactive tools such as flashcards, quizzes, grammar exercises, and personalized vocabulary lists, users can become more engaged in learning and master new material faster.

The use of modern technologies such as Next.js and MongoDB allows us to create a stable and scalable platform that provides a convenient and effective learning experience for users. The platform promotes the development of language skills and creates conditions for continuous improvement of knowledge, making the learning process more exciting and effective.

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O. Haitan, Senior lecturer,
I. Pastushchyn, Student of the 401-TN group,
National University «Yuri Kondratyuk Poltava Polytechnic»

INFORMATION SYSTEM FOR TEAM COLLABORATION: IMPLEMENTATION OF TASK MANAGEMENT BASED ON MODERN WEB TECHNOLOGIES

In the modern world, teamwork is a key factor in the successful implementation of projects across various industries. Teamwork is a form of activity based on the cohesive interaction of team members in order to achieve common goals, and it involves the combination of each participant's knowledge, skills, experience and resources. Thanks to this approach, this form of work allows the completion of various tasks on the way to project implementation more quickly and effectively. However, due to the growing prevalence of team-based work, the need for tools that can ensure the effective organization of related processes is also increasing. Throughout the research, it was discovered that there are a variety of methodologies, technologies and solutions that can aid in organizing teamwork. The use of information systems is becoming especially relevant, with a vivid example of their implementation being task management systems, particularly web-based ones, which enable quick control of the team's work processes within projects, regardless of their physical location [1].

Popular methodologies that support effective task management include Agile, Waterfall, Scrum, Kanban, Scrumban and numerous others. Each of them provides its own approaches and principles that enable organization of work processes for the most productive achievement of goals. For example, the Waterfall methodology is characterized by a straightforward, cascading approach to task completion. At the same time, the Agile methodology includes a much more flexible approach, focusing on responding to changes. The more specific approaches like Scrum, Kanban and Scrumban have their own principles regarding the actual organization of work, but are generally centered around the core values of the Agile methodology [2].