DEVELOPING AN APPLICATION FOR E-EDUCATION

Oleg ILYUSHCHENKOV,
Vadim SHULGA,
Faculty of Physics and Engineering

iliyuyshchenkovoleg@gmail.com
vadim5608@gmail.com

The idea behind our project is to create a web – application for learning different areas. There is a well-known Duolingo application. It is a free platform for learning the language and crowdsourcing translations. Our idea is to create a similar online platform. But the difference is that on our platform, the user will have the opportunity to choose any area of study, for example: IT Technology, Economics, International Relations, Chemistry, Law. To learn foreign languages is an opportunity too. Of course, this will not mean that the platform will fully prepare a person for work. These are only additional courses that will complement basic knowledge. Firstly, we need to design our platform. For this purpose, UX/UI designer were used. We need to explain how the platform will look like and how it will work. UX (User experience) will make a prototype in order to show where and how everything will work, and UI (User interface) will make a beautiful rendering (Fig. 1). Secondly, after UX/UI design is ready, we need to start front-end development. We can write on pure HTML/CSS/JS, but for convenience we will use the Framework React.js. Why React? Using the React.js library, we get the opportunity to focus on the user interface and application components, paying less attention to code. This library helps us create applications faster, the declarative programming style greatly simplifies debugging of components and the project as a whole. For example, how we will do user registration and authorization. We will use the RestAPI principle, were, we have a client and a server separately. So, to send requests we need to use AJAX requests, and for this we will use the Axios.js library. Also, we can a use the library to validate the form, for this we will use the library validator.js.
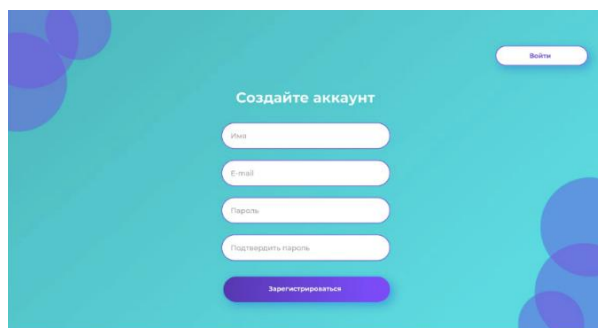
Fig. 1. Registration page.

For our platform, we have chosen the Django Framework – a full-featured server-side web framework that helps develop websites quickly and simply. Every time you develop websites, you need similar components: way to authenticate users (login, logout, registration), panel site management, forms, file upload tools, etc. In this regard, people paid attention to the occurrence of the same type of tasks when web development, they teamed up and created frameworks (Django and others) that offer us ready-made templates for use, which are essential facilitate the development process. For example, (Fig. 2), we will show you how to implement a user registration algorithm on our platform using the Django framework. The data base is used to store information about users, we will use the SQLite database for this project, it should be configured by default in Django.
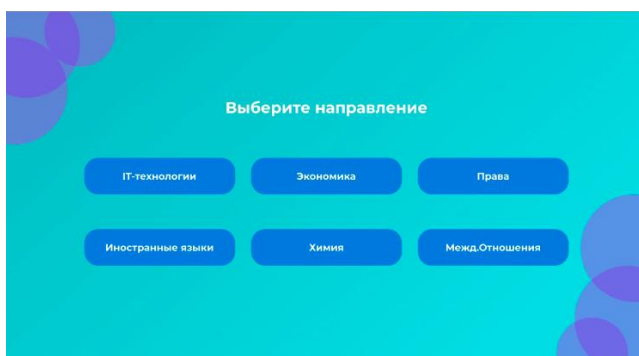

Fig. 2. Web-Application.

In conclusion, with the help of our platform, people can develop themselves, gain additional skills. Fun activities for productivity, ability to study subjects from anywhere in the world.

Bibliography:

1. https://prognote.ru/web-dev/front-end.
2. https://students.njay.ru/article/Registratsiia-v-Django.
3. https://tproger.ru/translations/python-args-and-kwarg.
4. https://students.njay.ru/article/Modeli-i-Bazy-dannykh-v-Django.
5. https://developer.mozilla.org/ru/docs/Learn/Server-side/Django/Authentication

Recommended
Adriana INCULEȚ, lector univ.