

sushi bar on the map, the rating and review system, viewing the availability of products in real time.

Mikita Kolasau
(Fr. Skorina GSU, Gomel)
Scientific advisor **Aliaksandr Kucharau**, senior lecturer

THE ARCHITECTURE OF A REPRESENTATIVE SITE FOR LLC «TABOO»

The main tools for the implementation of the project were the Python programming language, a framework for creating web applications Flask and MySQL as a database.

The Model-View-Controller (MVC) pattern was used to implement the project. Model-View-Controller – A schema for dividing application data, user interface, and control logic into three separate components.

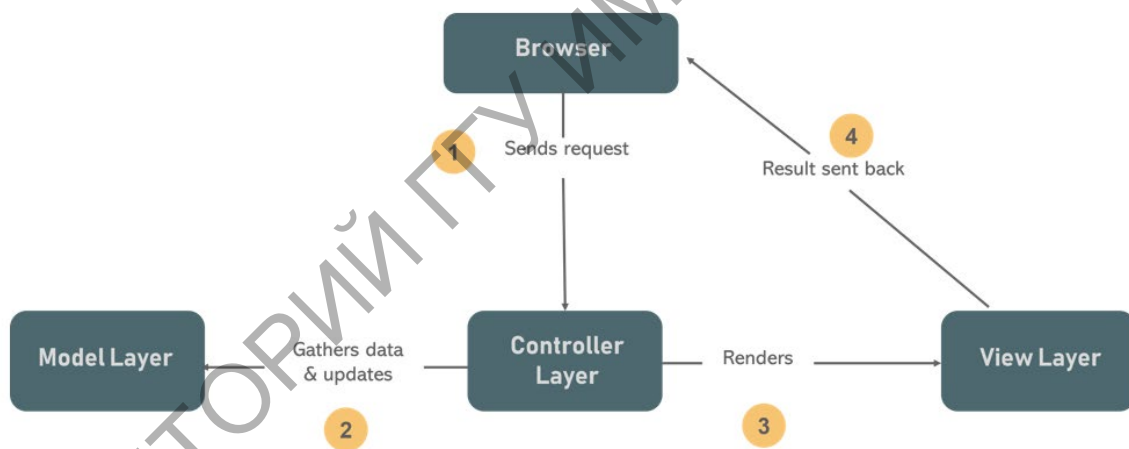


Figure 1 – MVC Model

Model layer. The data that will be stored in the database will be represented by a collection of classes, usually called database models. The ORM layer within SQLAlchemy will do the translations required to map objects created from these classes into rows in the proper database tables.

View layer. The view is the user interface (UI) of our web application, which renders data from the model as defined by template. Jinja2 Templating Engine is used to generate HTML webpages.

Controller layer. The code for the controller can be split into three sections: initialization, routing, and execution.

The first section to be described is Initialization. After creating a Flask instance, it is needed to set configuration options and connect database to the current instance. Since Flask is instance based, it is needed to create an instance and configure the settings for that instance. This allows us to have multiple processes, each with a different configuration.

The second section to be described is Routing. Flask requires to define URL routes for web application so it knows which pages to display/render when users access specific URLs. Each route is associated with a controller – more specifically, a certain function within a controller, known as a controller action. So, when you enter a URL, the application attempts to find a matching route, and, if it's successful, it calls that route's associated controller action.

The last one section to be described is Execution. To run our Flask application, we can add the following code to our app.py module to ensure it executes when it is run as a script.

The application was tested successfully, no errors and bugs were found.

Aliaksei Miatlitski

(Fr. Skorina GSU, Gomel)

Scientific advisor **Natallia Aksionava**, senior lecturer

APPLICATIONS OF BLUEPRINT SDK FOR DATA VISUALIZATION PURPOSES

Media technologies are widely used to display complex data in intuitive graphical forms. However, three dimensional visualizations can be problematic to perceive because of the complicated controls. Augmented reality is an intuitive approach in displaying models. Instead of controlling position and rotation of virtual camera with primitive controls, users are enabled to look at the model by inspecting them through cameras of their devices. However, augmented reality is recent and young technology, and creating such applications from scratch may have pointless costs.

BluePrint SDK designed to help create applications that allow to inspect models of buildings in augmented reality. Models of the buildings appear on top of the building plans, which helps users to intuitively understand and remember building structure. Control buttons allow users to switch between building levels dynamically. This SDK provides instruments to process plans of buildings, create models of this buildings based on these plans, and create an augmented reality application.