

## **THE ONLINE STORE DEVELOPING TECHNOLOGIES ANALISIS**

The choice of an architectural template for developing a CMS system for an online store is a crucial stage in the design process. Considering the nature of an online clothing store with diverse content (product catalog, product descriptions, customer reviews, shopping cart, etc.), the optimal choice is the MVC (Model-View-Controller) architectural template.

MVC allows for the effective separation of application logic from its presentation, facilitating the creation, editing, and deletion of content without affecting the application's functionality. Additionally, MVC promotes modularity and reduces dependencies between components, making debugging, development, and site refactoring more convenient in the future.

Modern and efficient technologies, such as Node.js, Express, and MongoDB, are employed for implementing the online store. This technology stack offers several advantages compared to competitors.

Node.js is a powerful platform for running JavaScript on the server, enabling the creation of web applications with minimal code and configuration. Express, as a lightweight and flexible framework, simplifies the creation of web servers and APIs. MongoDB, as a non-relational database, allows for storing and querying data in JSON format, which is efficient compared to other relational databases.

Advantages of using Node.js, Express, and MongoDB compared to competitors include:

- **Development speed:** The ability to create web applications with minimal code and configuration.
- **Asynchronicity:** Support for the event-driven model in Node.js improves the performance and scalability of web applications.
- **Development simplification:** Code uniformity and the flexibility of MongoDB in data modeling simplify development.

Comparing with ASP.NET, PHP, Ruby on Rails, and Django, it can be determined that Node.js Express has several advantages, such as development speed, asynchronicity, and code uniformity. These advantages make it an optimal choice for creating scalable and efficient online stores.

**Keywords:** ARCHITECTURE, DATABASE , ONLINE STORE , CMS SYSTEM , ARCHITECTURAL TEMPLATE, MVC, MODEL-VIEW-CONTROLLER, APPLICATION LOGIC, DEVELOPMENT, TECHNOLOGIES, NODE.JS, EXPRESS, MONGODB, TECHNOLOGY STACK, NON-RELATIONAL DATABASE, ASP.NET, PHP, RUBY ON RAILS, DJANGO, EFFICIENT ONLINE STORES.

## **REFERENCES**

1. Effiong M. Design And Implementation Of Online Shopping System.Docx. *Academia.Edu – Share Research*. Url: <https://www.academia.edu>.

Edu/36893414/Design\_And\_Implementation\_Of\_Online\_Shopping\_System\_Docx (Date Of Access: 11.12.2023).

2. Fitzgerald A. What is CMS Architecture? A Quick Reference Guide. *HubSpot Blog / Marketing, Sales, Agency, and Customer Success Content*. URL: <https://blog.hubspot.com/website/cms-architecture> (date of access: 11.12.2023).

3. Gustavo du Mortier. Ecommerce Database Design: ER Diagram for Online Shopping. *Vertabelo Data Modeler*. URL: <https://www.vertabelo.com/blog/er-diagram-for-online-shop/> (date of access: 11.12.2023).

4. How Do You Design a Shopping Cart Database for E-Commerce?. *Headless E-Commerce Platform | fabric*. URL: <https://fabric.inc/blog/commerce/shopping-cart-database-design> (date of access: 11.12.2023).

5. Zhao G., Zhou Z. Design and Implementation of the Online Shopping System. *SpringerLink*. URL: [https://link.springer.com/chapter/10.1007/978-3-642-33469-6\\_82](https://link.springer.com/chapter/10.1007/978-3-642-33469-6_82) (date of access: 11.12.2023).