Универзитет „Св. Кирил и Методиј" во Скопје
ФАКУЛТЕТ ЗА ИНФОРМАТИЧКИ НАУКИ И КОМПЈУТЕРСКО ИНЖЕНЕРСТВО

SOFTWARE DESIGN AND ARCHITECTURE

Homework assignment 1

Prepared by team: **ADELE-CORP**

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Project description

The project aims to develop a database-based web application focusing on the cultural and historical heritage of Macedonia. The application will utilize open data from OpenStreetMap, along with any additional data necessary for the project. The application will be designed to provide users with information about various cultural and historical sites in Macedonia, including their locations, historical significance, and any notable features. Users will be able to search for specific sites, view detailed information about each site, and navigate to these sites using mapping features. The application will also provide a platform for users to share their experiences and reviews about these sites, fostering a community of interest in Macedonia's cultural and historical heritage.

For detailed project instructions and access to project resources, please visit our GitHub repository at the following link: https://github.com/ADELE-CORP/DIANS-FINKI/tree/main.

In our project's README file in branch homework1, you will find comprehensive instructions on how to filter and integrate data from OpenStreetMap and other sources, enabling you to contribute to and enhance the richness of the cultural and historical heritage database.

Functional and non-functional requirements

1.Functional Requirements:

- ✓ Users should be able to search for cultural and historical heritage sites in Macedonia by name, location, type, or historical period.
- ✓ Detailed information about each heritage site, including historical significance, images, and visitor information, should be available.
- ✓ An interactive map with markers for each site should allow users to explore the region visually.
- ✓ Users can create accounts to save their favorite sites, leave reviews, and contribute additional information.
- ✓ Users can plan routes to visit multiple heritage sites, with options to optimize for travel time or historical significance.
- ✓ Users can access multimedia content, such as videos or virtual tours, for select heritage sites.
- ✓ The application should support multiple languages to cater to a diverse user base.
- ✓ Users can receive notifications about upcoming events or new site additions.
- ✓ The application should adhere to accessibility guidelines to ensure usability for all users, including those with disabilities.
- ✓ The system should be able to handle an increasing number of users and data as more heritage sites are added and user engagement grows.

Non-Functional Requirements:

- ✓ The application should load quickly and respond to user actions without significant delays.
- ✓ User data and site information must be stored securely, and the application should protect against common web vulnerabilities.
- ✓ The application should have high uptime and be available 24/7 with minimal downtime.
- ✓ The user interface should be intuitive and user-friendly, requiring minimal training for users.
- ✓ The application should work on various devices and browsers, ensuring a consistent user experience.
- ✓ Data from OpenStreetMap and other sources should be regularly updated to ensure accuracy.
- ✓ The application should comply with relevant data protection and accessibility regulations.
- ✓ The system should be scalable to accommodate future growth in data and users.
- ✓ Continuous monitoring and optimization of application performance should be in place.
- ✓ User privacy should be respected, and data handling should adhere to privacy laws and best practices.