<u>Description of the system</u>

The system is a web application made with the purpose to assist users in discovering all the cultural and historical heritage places of North Macedonia. The primary emphasis of this system is on seamless mapping and navigation. Users have the flexibility to access the application at their convenience, ensuring availability 24/7. The system's foundation is built upon data extracted from the OpenStreetMap website, and its design is based on the principles of the Pipe-and-filter architecture.

To build an extensive directory of all the cultural and historical heritage places of N. Macedonia, each node in the OpenStreetMap database is associated with key details, including a unique identifier (ID), geographical coordinates in terms of latitude and longitude, version information, timestamp of the last modification, user attribution, and additional tags specifying metadata. This careful consideration of data attributes ensures users have a great and easy-to-use map when they're exploring the diverse cultures across North Macedonia.

<u>Functional requirements</u>

- 1. The web application shall display a map with the cultural and historical heritage places in N. Macedonia and their information.
- 2. The web application shall display the cultural and historical heritage places according to their reviews, from best to worst reviewed.
- 3. The web application must offer text-based navigation for users relying on screen readers.
- 4. The web application shall show the distance between the current location and the selected cultural and historical heritage place.
- 5. The web application shall show the needed time by car, bus or by foot from the current location to the selected cultural and historical heritage place.

Non-functional requirements

- 1. The web application shall be able to run on different operating systems (Windows, MacOS, Linux) and support most browsers such as Chrome, Firefox, Safari etc.
- 2. The web application shall offer text-based navigation on request within 10 seconds.
- 3. The web application shall respect the privacy policy.