Conceptual Architecture

Keywords:

Functional requirements

1. The web application shall **show** a map with the cultural and historical heritage places in N. Macedonia and their information on the client side.
2. The web application shall **provide a list** of cultural and historical heritage places.
3. The web application shall have a **search** function for the list of cultural and historical heritage places in N. Macedonia.
4. The web application shall have a **filter** function for the landmarks according to their reviews, from best to worst reviewed.
5. The web application shall have a **calculating** function between current and selected location, for the following **optimal distances**.
   6.1: Shortest path.
   6.2: Fastest route.
6. The web application shall have a **calculating** function for the needed time by car, bus or by foot from the current location to the selected historical site.
7. The web application shall **have .csv tables** for all cultural and historical heritage places in N. Macedonia.
8. The web application shall **exhibit the working schedule** of the given cultural and historical heritage places.
9. The user must be able to **download** maps and navigation data for offline use.
10. The administrator can **add** or **remove** cultural and historical heritage sites.
11. The web application needs to **provide user management**.

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 **respect the privacy policy**.
3. The **search** function shall not take more than 5 seconds.
4. The **calculating** function shall take less than 10 seconds.
5. The **precision** of the calculating function will be with an accuracy of 99.9%.
6. The web application can handle 300 online users simultaneously.
7. The **download** functionality shall enable concurrent requests from at most 15 users.
8. The **addition** or **removal** functionality shall allow administrators to upload a maximum of 20 heritage sites in a single operation.
9. The web application will **update** user choices within 500 milliseconds.
10. The **user management** functionality must complete the creation of a new user account within 10 seconds.

Data	Function	Stakeholder	Abstract Concept
.csv table	Filter	Administrator	Shortest path
Users	Select	User	Fastest route
Map	Search		
Distance	Display		
Location	Calculate		
Place	Add/remove(places)		
Route	User management		
User choice	Download		
Bus	Show		
Car	Provide		
Landmarks	Register		
User interaction			
User accounts			