
Software Design Specification

for

SarajeWar

Version 1.1

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Revision History

| Name | Date | Reason For Changes | Version |
|---------|---------|---|-----------------|
| Rev 1.0 | 8.11.17 | | Initial version |
| Rev 1.1 | 9.01.18 | Adjusted according to actual implementation particularities | Final version |
| | | | |
| | | | |

Objectives

SarajeWar app is developed for the Historical Museum of Bosnia and Herzegovina. It is envisioned to be an interactive map of the Sarajevo, providing users with opportunity to see a full picture of the events which unfolded in the 1992-1996 timeframe. Application would feature an interactive map of all locations, distinguishable by displayed markers. Detailed textual and visual information regarding the relevant location would be available to users via pop-up windows. Additionally, users would be able to use search functionality through geocoding service. It should be also mentioned that apart from the main functionality, museum staff would also have an administrator interface with a possibility to update, delete and create locations on the map.

SarajeWar is to be developed as a client-server application, with free-tier cloud computing platform serving as a server and user's browsers acting as clients.

System Design

Based on the available details, it seems that system design could incorporate the Editable interface for both LocationIcon and Location. However, since Ruby (selected programming language) does not support interfaces, it was decided to skip interface concept.

The class diagram is depicted on Figure 1 – *Class Diagram*.

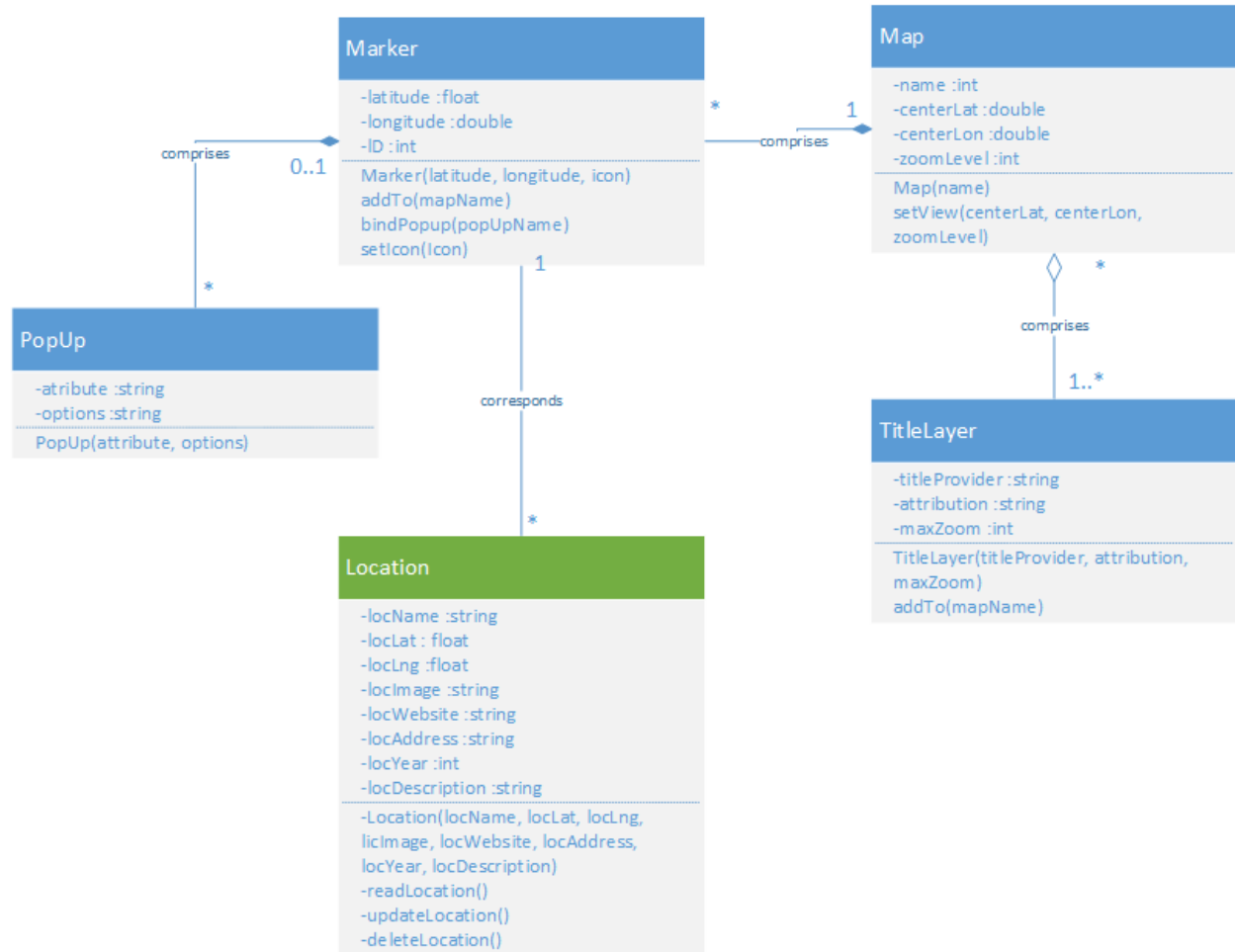


Figure 1 – Class Diagram

Use case diagram could be seen on Figure 2 – *Use Case Diagram*.

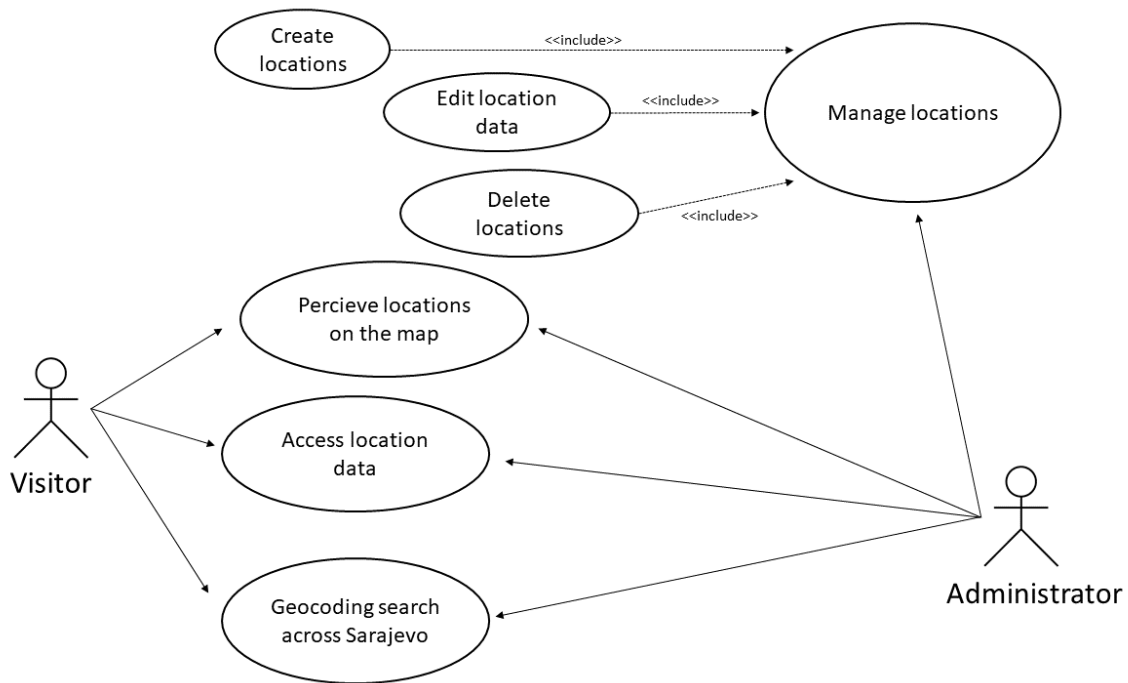


Figure 2 – Use Case Diagram

Functional Decomposition Specification

The functional decomposition diagram is depicted on Figure 3 – *Decomposition Diagram*.

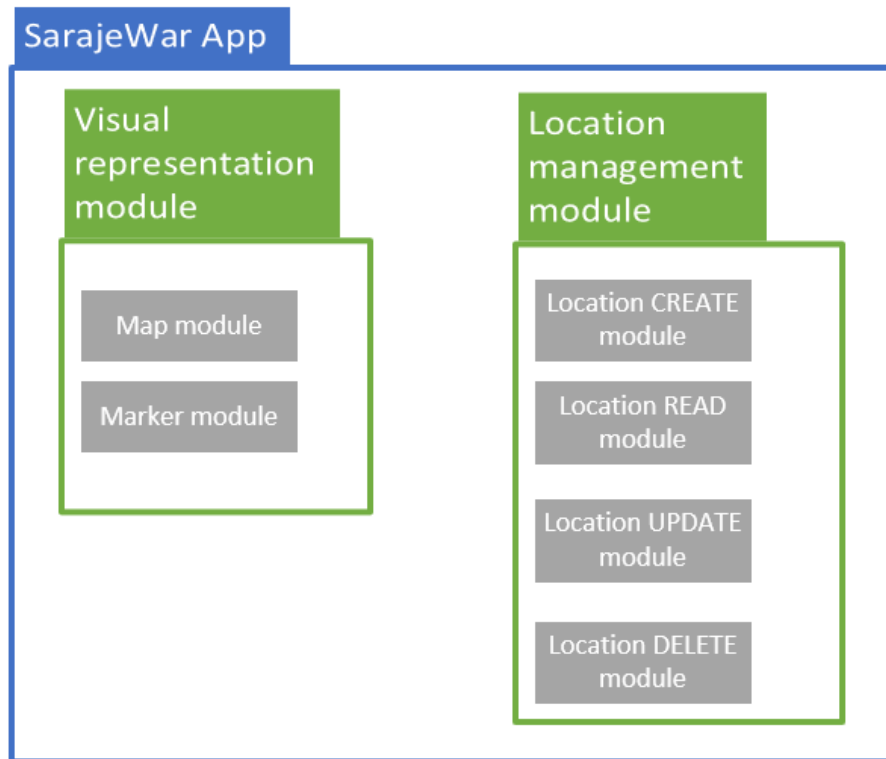


Figure 3 – Decomposition Diagram

| Module name | Inputs | Outputs | Functions |
|------------------------|----------------------------------|--|---------------------------------------|
| Map module | Map parameters | Configured map | Display map |
| Marker module | Marker parameters | Configured markers | Display markers in required locations |
| Location Create module | Data to create location | Created location | Construct locations |
| Location Read module | Location which is to be read | Location details | Access location details |
| Location Update module | Location which should be updated | Updated location with specified details | Update location details |
| Location Delete module | Location which is to be deleted | Notification about successful location removal | Delete incorrect locations |

Dynamic Models

The sequence diagram is shown on Figure 4 – *Sequence Diagram*

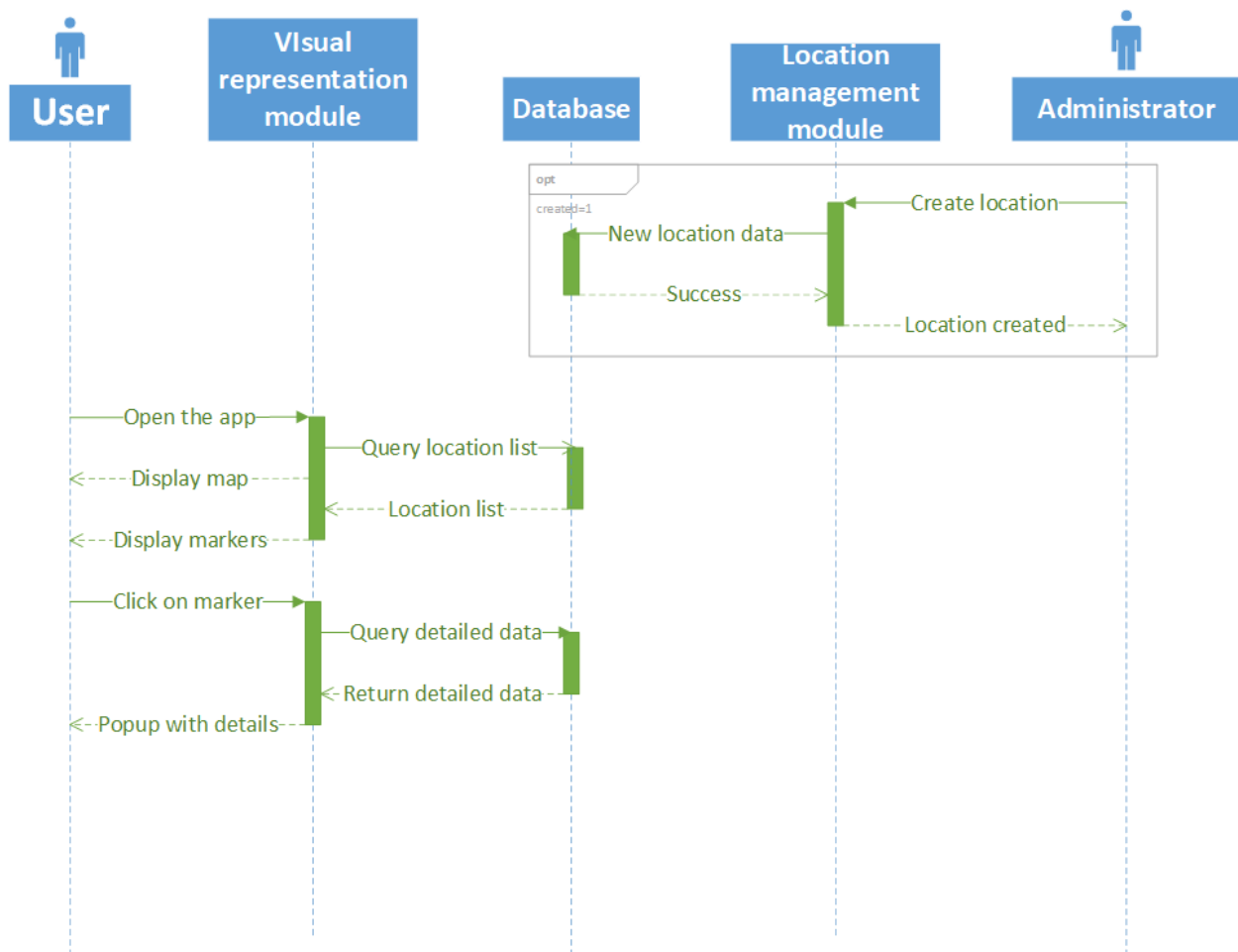


Figure 4 – Sequence Diagram

User Interface

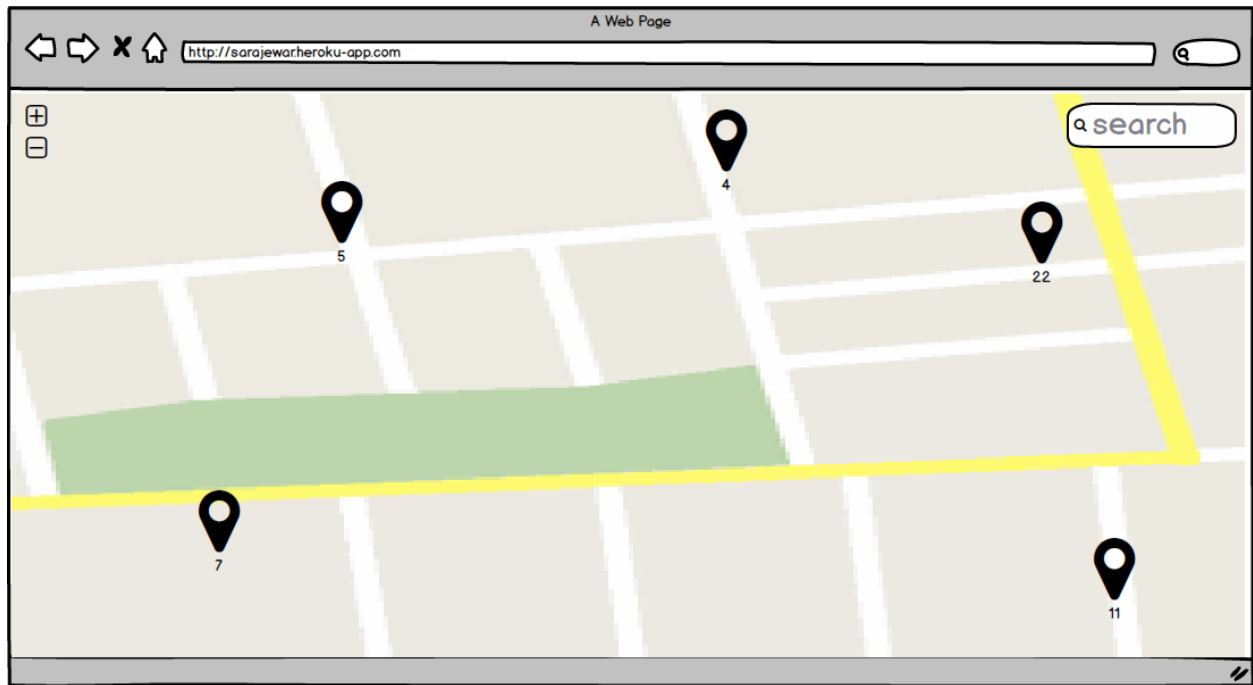


Figure 5 – Main screen

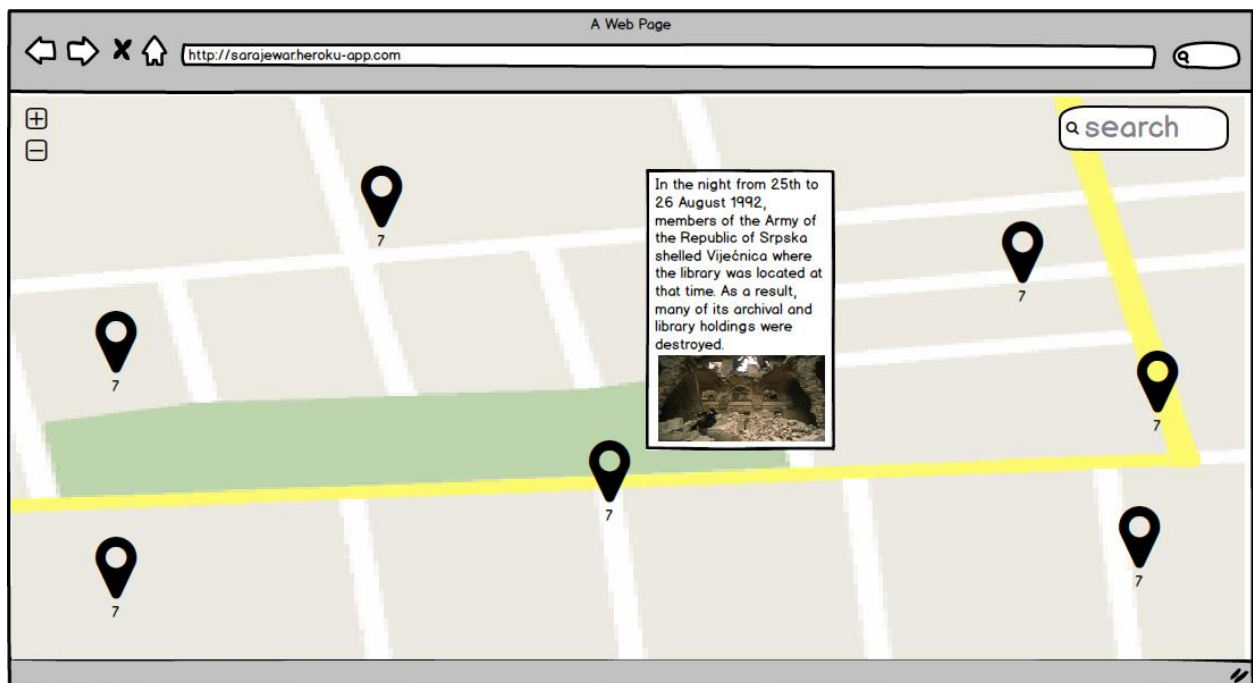


Figure 6 – Marker data screen

Please enter your credentials

Username

Password

Log in Cancel

Figure 7 - Login screen

Admin > Dashboard

| Name | Year | Latitude | Longitude | Edit | Delete |
|------------------------|------|----------|-----------|--------------------------|--------------------------|
| National Library | 1991 | 43.8 | 18.4 | <input type="checkbox"/> | <input type="checkbox"/> |
| Kosevo Hospital | 1992 | 43.81 | 18.45 | <input type="checkbox"/> | <input type="checkbox"/> |
| Markale Market | 1995 | 43.82 | 18.456 | <input type="checkbox"/> | <input type="checkbox"/> |
| University of Sarajevo | 1999 | 43.83 | 18.4567 | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

1.10 | 10.20 | 20.30

Figure 8 - Dashboard screen

A Web Page

http://sarajewarheroku-app.com/admin/locations/kosevoloc123

[Admin](#) > [Dashboard](#) > Edit

Trebevic Mountain

43.9

18.9

Year

Edit Cancel

Figure 9 - Edit screen

A Web Page

http://sarajewarheroku-app.com/markers

[Admin](#) > [Dashboard](#) > Add

Trebevic Mountain

43.9

18.9

Year

Save Cancel

Figure 10 - Add screen

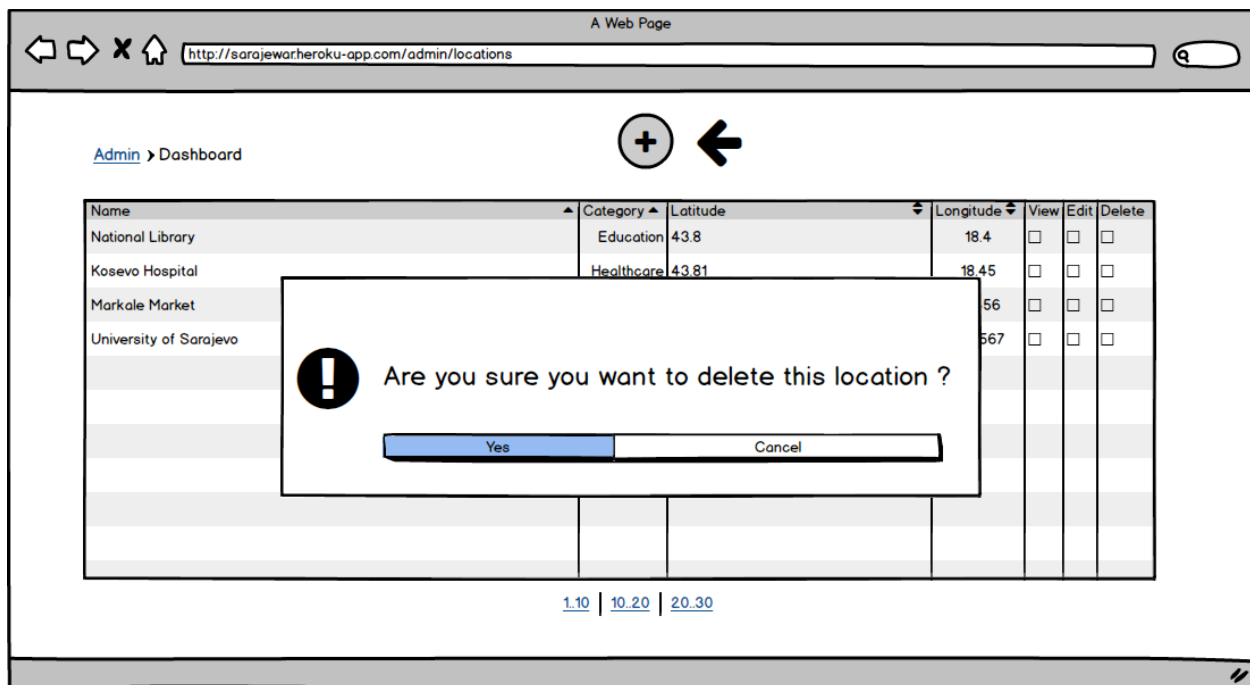


Figure 11 - Delete screen