

# **Software Requirements Specification for Social Map**

Version 1.0 approved

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## Revision History

Name	Date	Reason For Changes	Version

# 1. Introduction

## 1.1 Purpose

One of our team members brought up the idea to share photos on a Google map in order to observe where the pictures were taken from. The purpose of our web application is to enable users the ability to upload pictures and videos via facebook, instagram and/or from their computer/phone. We would like for people who may want to visualize the trip or places they have visited in relation to a map.

## 1.2 Document Conventions

Team No Idea has established a standard operating procedure (SOP) on how to create powerpoints and documents. This SOP sets guidelines on the specific fonts, font size, and prioritizes information. Each task needed to be complete will be prioritized and distributed among the team.

## 1.3 Intended Audience and Reading Suggestions

This will be intended for users who would like to see their pictures (and possibly their friends) inserted on Google maps.

This document is intended for the developers, users, and testers for the project (Project name). Sections one and two provide an overview on the project, and later sections organize detailed descriptions of the software.

## 1.4 Project Scope

Our web application gives you the possibility of implementing your pictures and videos into Google Maps using the location to visualize the trip or places visited.

Benefits: Order and locate pictures on Google Maps, get a quick overview of different places you have visited in the world, inside a country, or state.

Objectives: Use Google Map API and social media plug-ins to insert pictures in the map.

Goals: Create a site and login, get pictures to work with the map.

## 1.5 References

Website URLs:

- <https://www.instagram.com/developer/>
- <https://developers.facebook.com/>
- <https://developers.google.com/maps/?hl=en>

## **2. Overall Description**

### **2.1 Product Perspective**

This is a self-contained product utilizing a website to host its services.

### **2.2 Product Features**

Our web application will allow users the ability to connect through Facebook and Instagram in order to select pictures they would like to see on the map. It will also have the capability to select photos from their computer/phone to upload to the site. If the location isn't attached to the photo already, we will have the application ask the user where the content was taken. After all the content is loaded into the map, the user can have the option to share their collage on their preferred social media outlet.

### **2.3 User Classes and Characteristics**

This product will have one primary user class, the traveler. Anyone who has pictures and basic computer literacy skills are able to access this. Additional features can be found if the user has an active Facebook and/or Instagram account.

### **2.4 Operating Environment**

Some sort of JetBrains IDE? Notepad++? Brackets? Komodo IDE?

This project will utilize a free web hosting server, a website, HTML, PHP, and Javascript code.

### **2.5 Design and Implementation Constraints**

The constraints we may encounter while working on our project SocialMap is the issue of pulling photos from First party Social Media like Facebook and Instagram. The issue we will have with these sites is the privacy domain of the websites and allowing us to pull the photos and locations of the website in a legal matter. If time allows us to get around to converting our social media to smartphone applications. The limitations we might run into is converting the software into a smartphone application. Assuming we get the application to cooperate with smartphone OS, older models of the smartphones might not be compatible with the software so that can become a constraint. As for security concerns everyone always worries about having personal information and pictures getting into the wrong hands, so we will need to research into some type of MBAA service in order to protect the clientele's information. Some constraints within our group is working with HTML5, PHP, and Javascript because some of us haven't worked with the software before so it will be a learning curve within the groups limitations and time management.

<Describe any items or issues that will limit the options available to the developers. These might include: corporate or regulatory policies; hardware limitations (timing requirements, memory requirements); interfaces to other applications; specific technologies, tools, and databases to be used; parallel operations; language requirements; communications protocols; security considerations; design conventions or programming standards (for example, if the customer's organization will be responsible for maintaining the delivered software).>

## 2.6 User Documentation

Social Map is planned to be really simple and easy to understand, consequently it should not need any help files. However, Social Map will have a tutorial when you first use the web application that will give you a short overview of the different features that it has. As we develop the web application we edit the instruction of use as we continue to add features or remove features from the application.

User help files will be available from the game itself. The help files will explain the rules of the game as well as the layout of the user controls.

## 2.7 Assumptions and Dependencies

Social Map will implement the Google Maps API, Flickr API, as well as dependencies on Instagram and Facebook in order to retrieve photos for the user and post them on the map. Social Map is currently running on SocialMap.netai.net utilizing a web server members.000webhost.com.

<List any assumed factors (as opposed to known facts) that could affect the requirements stated in the SRS. These could include third-party or commercial components that you plan to use, issues around the development or operating environment, or constraints. The project could be affected if these assumptions are incorrect, are not shared, or change. Also identify any dependencies the project has on external factors, such as software components that you intend to reuse from another project, unless they are already documented elsewhere (for example, in the vision and scope document or the project plan).>

# 3. System Features- (user stories)

**\*User story/feature eliminated because of time constraints or complexity**

**\*Edited User story**

3.1

User: A user went on a trip and they took pictures in different countries, the problem is no one knows where the pictures are geographically.

Response: Create a website in which a map displays where the pictures are taken through Google maps.

3.1.1- find a free website domain in order to host our website. This priority is high because

**3.1.2- We changed over from the free web hosting server to a paid service called iPage. It was a pretty cheap web hosting and it allowed for us to be recognized as a non-malicious site by Instagram.**

### 3.2 Security

User: A user is afraid that the pictures he/she uploaded could be stolen or viewed by someone that is unauthorized.

Response: Make the user accounts privates and enabling an option for sharing the selected albums to other users.

3.2.1 use free tools such as Netsparker and OpenVAS in order to test SQL injection and XSS. **Instead we found a way to encrypt the passwords and emails that is inserted into our server.**

### 3.3 Login

User: A user wants to have a profile in which they can upload and edit their own Social Map.

Response: Create a login and password domain in order for each user to have their own secure page to edit.

3.3.1 Create a login screen in order for the user to login to his/her account

3.3.2 Find a free website hosting server such as MySQL in order to store the user's login information securely.

### 3.4 Profile

User: A user wants to edit their profile in order to fit their style and maybe personality

Response: Find a way to let the user edit their own website domain for their profile and customize their trips.

3.4.1 Design a page for the user to create their own profile and store their albums.

### 3.5 Social Media

User: A user wants to import pictures from certain social media outlets.

Response: Enable an import option to SocialMap through different social medias such as **Facebook and Instagram**

3.5.1 Utilize Social media plug-ins/APIs. **We are trying to utilize the Instagram API in order to be able to look at their map features as well as our own. By using their API we will be able to direct you straight to their map and be able to see some of the pictures you took using Instagram.**

### 3.6 Phone Application

User: A user wants to be able to upload his pictures into Google Maps directly from his phone instead of using the computer

Response: Work on developing a phone application with the same capabilities as the web application.

3.6.1 Create application on Unity/Xcode/Android Studio that supports Android and Apple phones.

### 3.7 Customization

User: A user wants to customize their profile and color scheme of the website

Response: Find a way to allow for the user to edit and create different layout schemes of their profile.

3.7.1 Create ability and options to customize profile and outlook of website.

### 3.8 Storing and Creating Albums For Different Trips

User: A user wants to organize his / her pictures into different albums for every trip.

Response: Provide the ability to create different albums for every trip to organize the pictures

3.8.1 Enable an album folder feature to maintain the user's different trips and pictures.

### 3.9 Form to submit pictures

User: A user wants to upload some pictures that he / she got from a friend and do not have a location because they were not taken from his / her phone

Response: Create a form with all the information needed for implementing the picture into Google Maps and enable the option to click in the location where the picture was taken

3.9.1 Design a form that enables the user to select a photo from their computer files and submit it on the map at a certain location. **The way the user inputs the photos is by inserting a url from which the photo is uploaded form**

### 3.10 Sharing Feature

User: A user wants to make his/her album viewable by other friends on social media.

Response: Create an option to share the user's album to another individual's social media (Facebook, Twitter, Instagram) or their email address.

3.10.1 Create a sharing feature that enables the user to select a specific social media or email option to share the album. **We may or may not be able to do this because we need to have Facebook and Instagram classify our website as non-Malicious. We are trying to find a way of doing this.** *\*Update we switched over from the free web hosting server to a paid service and Instagram has recognized us a non-malicious site. We have abandoned the Facebook API, but we are currently trying to get Instagram to upload straight to the map.*

### 3.11 FAQ

User: I want to contact the administration about certain questions on the website or how to operate the website

Response: Create a forum that allows the user to ask question or comment on certain aspects of the website.

3.11.1 Create a forum that allows the user to ask questions or make comments to the administration.

<This template illustrates organizing the functional requirements for the product by system features, the major services provided by the product. You may prefer to organize this section by use case, mode of operation, user class, object class, functional hierarchy, or combinations of these, whatever makes the most logical sense for your product.>

## 3.1 System Feature 1

<Don't really say "System Feature 1." State the feature name in just a few words.>

### 3.1.1 Description and Priority

<Provide a short description of the feature and indicate whether it is of High, Medium, or Low priority. You could also include specific priority component ratings, such as benefit, penalty, cost, and risk (each rated on a relative scale from a low of 1 to a high of 9).>

### 3.1.2 Stimulus/Response Sequences

<List the sequences of user actions and system responses that stimulate the behavior defined for this feature. These will correspond to the dialog elements associated with use cases.>

### 3.1.3 Functional Requirements

<Itemize the detailed functional requirements associated with this feature. These are the software capabilities that must be present in order for the user to carry out the services provided by the feature, or to execute the use case. Include how the product should respond to anticipated error conditions or invalid inputs. Requirements should be concise, complete, unambiguous, verifiable, and necessary. Use "TBD" as a placeholder to indicate when necessary information is not yet available.>

<Each requirement should be uniquely identified with a sequence number or a meaningful tag of some kind.>

REQ-1:

REQ-2:

## 3.2 System Feature 2 (and so on)

# 4. External Interface Requirements



## 4.1 User Interfaces



UI mockup shown above. Software components needed are: Social media plugin buttons, upload your own pictures button, image overlay on map once images are loaded from the various sources provided.

The image shows the login and registration forms of the 'SOCIALMAP' application. The header bar is green with the 'SOCIALMAP' logo and a green circular icon. Below the header, there is a green bar with the text 'Welcome to SocialMap' and a 'Home' link. The main content area is divided into two sections: 'Sign In or Create an Account' and 'Sign In'. The 'Sign In' section has a green header bar and contains a 'Username' input field, a 'Password' input field, and a 'Login' button. Below the 'Sign In' section, there are two buttons: 'Sign in with Instagram' and 'Log In'. The 'Create an Account' section has a green header bar and contains a 'First Name' input field, a 'Last Name' input field, a 'Username' input field, a 'Password' input field, a 'Confirm Password' input field, and a 'Sign Up' button.

This is our final mock-up of our website. We redesigned the interface, in order for the user to have an easier way to navigate the startup screen.



This is the final version of our forum board that we have created. Here you can access and discuss any particular questions or comments you have about the website.  
<http://socialmapforum.proboards.com/>

<Describe the logical characteristics of each interface between the software product and the users. This may include sample screen images, any GUI standards or product family style guides that are to be followed, screen layout constraints, standard buttons and functions (e.g., help) that will appear on every screen, keyboard shortcuts, error message display standards, and so on. Define the software components for which a user interface is needed. Details of the user interface design should be documented in a separate user interface specification.>

## 4.2 Hardware Interfaces

<Describe the logical and physical characteristics of each interface between the software product and the hardware components of the system. This may include the supported device types, the nature of the data and control interactions between the software and the hardware, and communication protocols to be used.>

## 4.3 Software Interfaces

<Describe the connections between this product and other specific software components (name and version), including databases, operating systems, tools, libraries, and integrated

commercial components. Identify the data items or messages coming into the system and going out and describe the purpose of each. Describe the services needed and the nature of communications. Refer to documents that describe detailed application programming interface protocols. Identify data that will be shared across software components. If the data sharing mechanism must be implemented in a specific way (for example, use of a global data area in a multitasking operating system), specify this as an implementation constraint.>

## **4.4 Communications Interfaces**

<Describe the requirements associated with any communications functions required by this product, including e-mail, web browser, network server communications protocols, electronic forms, and so on. Define any pertinent message formatting. Identify any communication standards that will be used, such as FTP or HTTP. Specify any communication security or encryption issues, data transfer rates, and synchronization mechanisms.>

# **5. Other Nonfunctional Requirements**

## **5.1 Performance Requirements**

### **5.1.1 Game Board Update**

Within one second of firing a torpedo, a player's offensive board and his opponent's defensive board should be updated with the status of the shot (hit or miss) according to functional requirement 3.6.3.

### **5.1.2**

After a multiplayer game is started, the matchmaking server shall update its open game list within 5 seconds.

## **5.2 Security Requirements**

During a network game, only information concerning the coordinates of fired shots shall be sent over the network. The system shall not have the ability to execute arbitrary commands based on data received via the network. Potential security risks are eliminated by ensuring that the system itself will not allow for information received over the network to alter any part of the remote system except for the game itself.

## 5.3 Software Quality Attributes

### 5.3.1 Portability

Portability is an important factor for Battleship so that the game may be played independent of a particular platform. The system should support a network game between two players running the game on his own distinct platform.

### 5.3.2 Usability

Usability is equally important since the software exists solely for entertainment purposes. A player with basic computer literacy (i.e. keyboarding and mouse skills) should quickly master the game play controls.

#### Appendix A: Glossary

**Hit** A hit occurs when the coordinates of a fired torpedo coincide with any of the coordinates occupied by an enemy ship.

**Miss** Any fired torpedo that is not a hit is a miss.

**Ship Position** The set of coordinates occupied by a ship.

**Sink** A ship is sunk when all of the coordinates of the ship's position have been hit.

**Offensive Board** A player's view of the enemy's defensive board, including the hits and misses recorded.

**Defensive Board** A grid showing the position of the player's ships.

#### Appendix B: Analysis Models

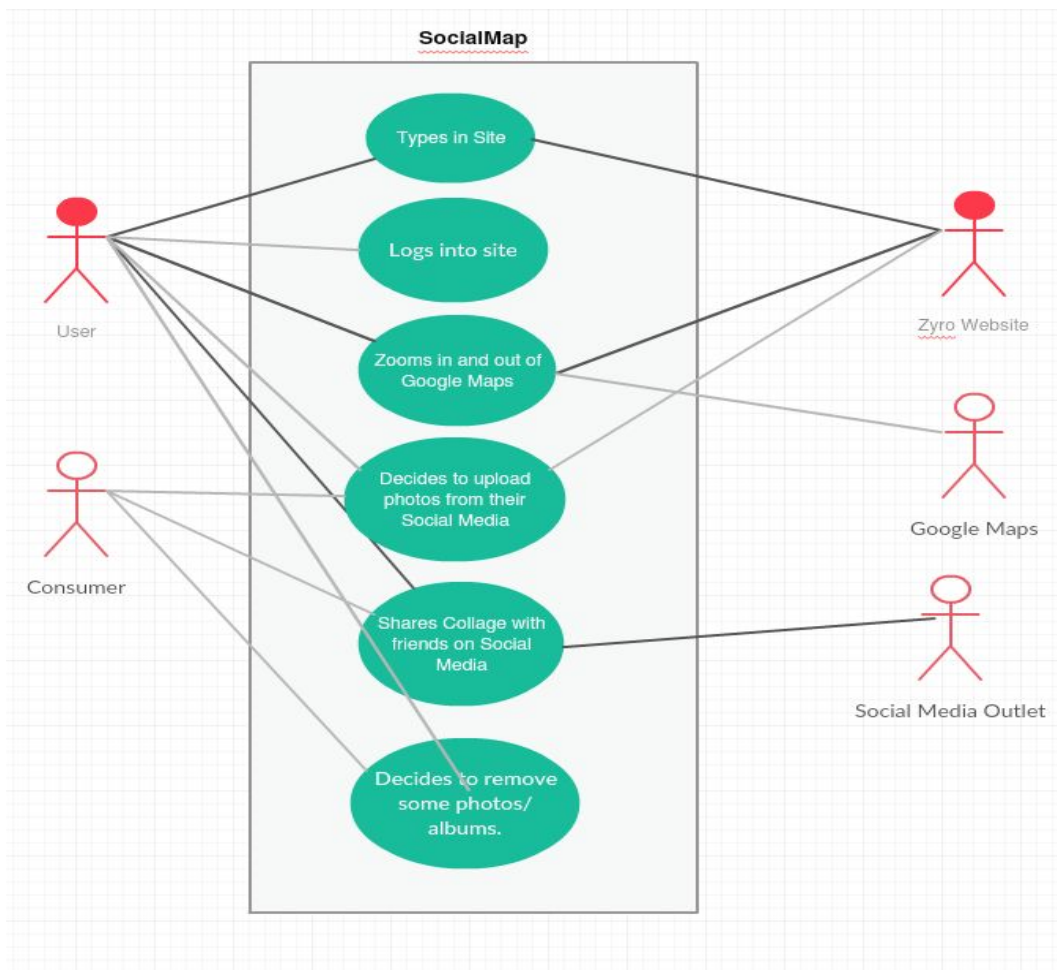
<Optionally, include any pertinent analysis models, such as data flow diagrams, class diagrams, state-transition diagrams, or entity-relationship diagrams.>

#### Appendix C: Issues List

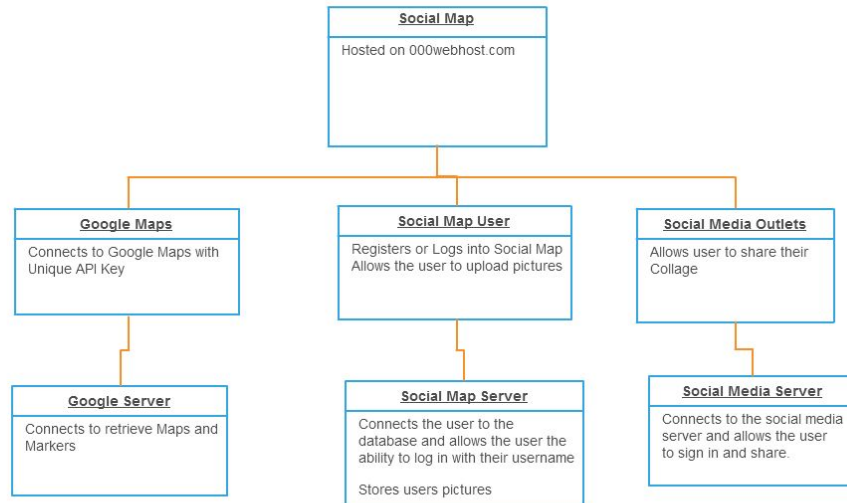
< This is a dynamic list of the open requirements issues that remain to be resolved, including TBDs, pending decisions, information that is needed, conflicts awaiting resolution, and the

## UML Diagrams

## Usecase UML:



## Object UML:



## Activity UML:

