Software Requirement Specification

# Introduction:

The idea is to make a Web Application that takes an authentic User’s (having a social account i.e. Google/Facebook) location, generates its address and display it on Google Maps, also gives an interactable map for user to specify an accurate position (If the prediction is >50Km) along with this store this data in a database for future use.

Also implement One Tap Login and Google Analytics.

Definition of Terminologies Used:

* **Authentic: Describes that the user is a registered account user for Google/Facebook.**
* **Social: Refers to the various known account providers like Google/Facebook.**
* **One Tap Login: A special programming module by Google for signing in user using their finger print.**
* **Interactive Map: Basically a map that shows pin point for accurate location tracking, which can be done using user interaction.**
* **IP address: refers to the physical IP address of the device user is using.**
* **Add on module: defines the module which will be added in the end as it being a research for the team.**
* **Dependencies: Things which are not known as of now and needs to be researched and also the things which have a little control for manipulation of their code.**

# **Overall Description:**

* 1. Structured Modules:
     1. Authentic social Login/Sign-up Module. (for Google/Facebook)
     2. One Tap Login. (If available)
     3. Capturing and Displaying User’s current location, address and Interactable Map view of current location.
     4. Save the user data (which includes user IP address, Location Co-Ordinates, address) into Database.
     5. Logging User out. (Log out)
     6. Add on modules: Google Analytics.
  2. Dependencies:
     1. APIs:
        1. Social Login/Sign up.
        2. One Tap Login.
        3. User Location to address conversion.
        4. Interactive Map.
     2. Google Analytics.
  3. Intended Platforms to Use:
     1. Front End: Html, CSS, Bootstrap, JavaScript, Vuejs.
     2. Back End: Composer with Laravel php, SQL database.

# System feature and Requirements:

* 1. Authentic social Login/Sign-up Module. (for Google/Facebook
     1. Functional Requirement.
        1. Only authentic User who has a social account i.e. on Google/Facebook can login.
        2. User who Sign up should be able to use the other services of their social account i.e. Gmail/Facebook
        3. ‘Remember Me’ feature is available to user.
        4. User should be able to use ‘forgot password’ feature.
        5. Only a logged in user should be able to use services of application.
     2. Non-Functional Requirement
        1. Maintainability: Should be a module i.e. a web page so that it is reusable with as less as possible or no constraints. (Constraints could happen in design like an dedicated area of the module)
        2. It should be able to provide a flexibility to develop an independent login party for users who don’t have Google/Facebook account in future.
        3. Safety: ?
        4. Resource: ?
  2. One Tap Login. (If available)
     1. Functional Requirement.
        1. Allows user to login without actually typing email and password i.e. by finger print.
        2. Allows user to set up One Tap Login.
     2. Non-Functional Requirement
        1. Maintainability: Should be a module i.e. a web page so that it is reusable with as less as possible or no constraints. (Constraints could happen in design like an dedicated area of the module)
        2. Resource: Only actives if device supports the hardware; else load error page/No resource page and redirect to home page.
  3. Capturing and Displaying User’s current location, address and Interactable Map view of current location.
     1. Functional Requirement.
        1. Provides User’s location (from browser)
        2. Provides User’s address by using coordinate to address converter APIs.
        3. Provide/Display an interactive map user’s current location + changing the values of the map dynamically changes current coordinates.
        4. Store the address and coordinates along with IP address in variable, until this module is active.
        5. Provides an update option that updates the current location coordinates, address and Interactive map.
     2. External Interface Requirement
        1. User only see this page if he/she is logged in.
     3. System Features
        1. Automatic user’s current location (coordinates) capturing.
        2. Automatic current address generation.
        3. Interactive Map that is dynamically linked to user location, i.e. updating the map updates the user coordinates.
     4. Non-Functional Requirement
        1. Maintainability: Should be a module i.e. a web page so that it is reusable with as less as possible or no constraints. (Constraints could happen in design like an dedicated area of the module)
        2. Resource: Only actives if device supports the hardware; else load error page/No resource page and redirect to home page.
  4. Saving the user data into Database
     1. Functional Requirement.
        1. Table for user is created (if haven’t created already) with Email as name of table.
        2. Table contain values for user IP address, location coordinates and location address.
        3. Stores the user’s IP address, location coordinates and location address in the table of currently logged in user.
     2. External Interface Requirement
        1. User only see this page if he/she is logged in.
        2. Directed to this module when submitted from previous module (i.e. Capturing and Displaying User’s current location, address and Interactable Map view of current location)
     3. Non-Functional Requirement
        1. Maintainability: Should be a module i.e. a web page so that it is reusable with as less as possible or no constraints. (Constraints could happen in design like an dedicated area of the module)
        2. Safety: Data should be updated only to the logged in user else load error page/No resource found page and redirect to home page.
  5. Log Out
     1. Functional Requirement.
        1. Logout user for the social account only for this application.
        2. If application closed (i.e. website is closed) then automatically logout.
     2. External Interface Requirement
        1. User only see this page if he/she is logged in.
  6. Add on module: Google Analytics (=> To be updated after pre-requisites research)