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# **Introduction BW**

The purpose of the system requirements documentation is to provide an overview of the vital classes and methods that will comprise the application, as well as the interplay between those elements. One of the core goals of this document is to define the functional requirements that will provide value to all stakeholders.

The document contains numerous visualizations to better contextualize the functionality of the application, such as a Class Diagram, Use Case Diagram, Use Case Scenarios and System Sequence charts. The class diagram is generated to give shape to the system and to connect its components. The Use case diagram provides examples of the methods used to meet the requirements. The Use Case scenarios take a speculative approach to defining Stakeholder engagement with the system. Finally, system sequence diagrams are constructed to map the exchange of data and actions required to perform all the necessary tasks.

# **Description Model BW**

The System requires input data primarily from Google Maps as it will serve as the backbone of the Application, all other data will effectively be used to generate an overlay and custom functionality for the existing infrastructure. Side Quest will also require user location data as well as information pertinent to a user profile on a social media website like facebook or instagram, including full name, username, password and date of birth.

The business level profiles in the application will require a different set of data to create a profile, such as address, hours of operation, type of business. The application also requires the business to present a form of identification (such as a scan of the proprietor’s drivers license or a business tax code)to verify authenticity. In an effort to improve visibility on the app, the business is also asked to provide keywords or tags to associate with their profile in order to make them more accessible to the consumer side of the user base.

Given all the above data, Side Quest will generate a road map interface which includes graphical widgets that represent points of interest, businesses, users (dependent on location sharing permissions). engaging with a business widget or point of interest will open an expanded view on the map (if the user is stationary) which includes details about the object such as hours of operation, reviews and average time expenditure.

In regards to performance and security, Once a route is set in Side quest a local copy of the route details is cached on the user’s device, this is done in an effort to combat spotty service negatively affecting navigation. Security is managed via username and password authentication coupled with togglable user location permissions, keeping user’s data and privacy under control.

**Input:**

-Google Maps Data

-Client location data

-Client profile data

-Client location highlighting preferences

-Client invitation and social preferences

-Client (business) data

-hours of operation

-price bracket

-defining flags for type of business

-business reviews

-Point of interest location

-point of interest reviews

**output:**

-location / business / point of interest distance relative to user

-Clickable profile widget containing business / point of interest data / Event Details

-Draggable road map interface

**Processes:**

-measure coordinates of destination relative to user location

-produce series of viable paths

-organize paths by most efficient vs scenic (include points of interest)

-generate event

-generate invitations for said event to list of users associated with the event creator.

-define event description-readjust mapping line based on user input

-factor added time into total

-display business user profile widget based on map coordinates

**Performance:**

-Local copy of map with route cached to prevent lag time reloading if cell service lapses

**Security:**

-Authenticating username and password on login.

-Not running transactions through the app, therefore no need to store payment information.

-Selective location sharing based on user preferences.

# **Class Diagram**

*Create a class diagram. The Class Diagram should contain all of the system objects, their attributes, and any known methods. This diagram may be included as a separate file – it does not need to be inserted into this Word document.*

# **Use Case Diagram**

*Create a Use Case Diagram for all of the "uses" of your system. This diagram may be included as a separate file – it does not need to be inserted into this Word document.*

# **Use Case Scenarios**

*Create a full description Use Case Scenario (detailed descriptions) for each use case of the system. This full scenario should include an enumerated list of steps involved in the activity as well as any exception conditions.*

# **System Sequence Charts**

*For each Use Case Scenario, provide a sequence diagram. Use your class diagram, use case diagram and scenarios to create the corresponding System Sequence Diagram*.