# **CSC 431** Truck Muck Software Requirements Specification (SRS)

**<Team #5>**

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# Version History

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| --- | --- | --- | --- |
| Version | Date | Author(s) | Change Comments |
| 0.01 | 2/15/2022 | Ronald Vera, Patrick Johnston,  Carlos Carpio | Initial Project Draft |
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### System Requirements

#### Functional Requirements

##### **App Landing Page**

|  |  |
| --- | --- |
| Title | App Landing Page |
| Description | Landing page will feature participating food trucks and deals of the week. The ability to login or register with us by creating a profile or using SSO. |
| Priority | 0 |
| Precondition(s) | App graphics, navigation, to be designed and developed |
| Basic Flow | * Page opens to featured food truck graphic along with any deals of the week. * Ability to login or register a new account |
| Postconditions(s) | * Login to existing account * Login via SSO * Create Account |
| Use Case Diagram | 3.2 |

##### **Account Registration for User/Vendor**

|  |  |
| --- | --- |
| Title | Account Registration for User/Vendor |
| Description | Creating a user/vendor name and password |
| Priority | 0 |
| Precondition(s) | Landing Page, create account option after clicking on login |
| Basic Flow | * Fields for username and password entry * Email field for email verification * Create account after email verification |
| Postconditions(s) | * Login to existing account * Login via SSO |
| Use Case Diagram | 3.1 |

##### **Login to registered account or SSO account**

|  |  |
| --- | --- |
| Title | Login to registered account or SSO account |
| Description | Login with two fields (username and password) or use SSO account with Facebook, Twitter, or Google |
| Priority | 0 |
| Precondition(s) | Account to have been created or own an existing SSO account |
| Basic Flow | * Users/Vendors will enter their credentials into fields * If information is entered correctly, send to profile page * If information is entered incorrectly, prompt to try again in red lettering * If attempted failed a third time, send email verification to reset password * Or option to use a SSO account through Facebook, Twitter, or Google |
| Postconditions(s) | Users   * Create/update Profile * View food truck locations by GPS or search specific truck * Ability to view menu’s from participating vendor to order and pay for an order for pick up * Leave reviews or comments   Vendors   * Create/update Profile * Upload latest menu options |
| Use Case Diagram | 3.2 & 3.3 |

##### **User Create Profile**

|  |  |
| --- | --- |
| Title | Create Profile |
| Description | System setup user profile with fields they can enter for personal information. |
| Priority | 2 |
| Precondition(s) | User logins through existing account or SSO account |
| Basic Flow | * Location * Age * Profile Picture * Bio (optional) * Food Preferences * Food Allergies * Favorite food trucks (optional) * Food Truck lovers follows/followers |
| Postconditions(s) | * User’s page might be feature on landing page * Other users can view profile * Other users can follow you * Use Networking Features * Use GPS Functionality |
| Use Case Diagram | 3.2 |

##### **User Networking Features**

|  |  |
| --- | --- |
| Title | User Networking Features |
| Description | Leave reviews on Vendor profiles, comment on others review, message users. |
| Priority | 2 |
| Precondition(s) | User logins through existing account or SSO account |
| Basic Flow | * Review Food Truck profiles with a 5-star system rating * Comment on others review * Message users that follow you |
| Postconditions(s) | * User’s review might be feature on landing page * Send/Receive messages from followers * Users can comment on your reviews |
| Use Case Diagram | 3.2 |

##### **Vendor Profile**

|  |  |
| --- | --- |
| Title | Vendor Profile |
| Description | System setup vendor profile with fields they can enter for food truck information. |
| Priority | 2 |
| Precondition(s) | Vendor logins through existing account or SSO account |
| Basic Flow | * Comment on user reviews left on your profile * Message users that follow you * List ingredients used to ID allergies of users to warn users * Upload promotional ads and videos * Schedule specials of the week or events Food Truck will be attending |
| Postconditions(s) | * Vendor Menu/Pick up Options * Vendor Payment Methods * GPS Functionality |
| Use Case Diagram | 3.3 |

##### **Vendor Menu and Ordering Option**

|  |  |
| --- | --- |
| Title | Vendor Menu and Ordering Option |
| Description | View Food Truck menus and ability to order food for pick up. |
| Priority | 3 |
| Precondition(s) | Vendor logins through existing account or SSO account |
| Basic Flow | * Upload PDF of menu for user’s viewership * Flag options for users that might have allergies * Option to create a checkout cart * Option to set time when order to be ready by |
| Postconditions(s) | * Vendor Payment Methods |
| Use Case Diagram | 3.3 |

##### **GPS Functionality**

|  |  |
| --- | --- |
| Title | GPS Functionality |
| Description | Main feature to find Food Trucks in your area. |
| Priority | 0 |
| Precondition(s) | Vendor/Users logins through existing account or SSO account |
| Basic Flow | * Participating Food Truck Vendor can pin their locations * Users can view Food Truck near them * Users can pin location of non-participating Food Trucks * Users can pin location of Food Truck event * Users can open navigation system to guide them to food truck location |
| Postconditions(s) | * Alerts/Notifications |
| Use Case Diagram | 3.2 & 3.3 |

##### **Vendor Payment Methods**

|  |  |
| --- | --- |
| Title | Vendor Payment Methods |
| Description | Use mobile pay options. |
| Priority | 3 |
| Precondition(s) | Vendor/Users logins through existing account or SSO account |
| Basic Flow | * Make payment through either Venmo, Google Pay, Paypal, Cash App, Apple Pay * Options to leave a tip * Receive email confirmation with receipt |
| Postconditions(s) | * Alerts/Notifications * Pick-Up Food Prep Tracker |
| Use Case Diagram | 3.3 |

#### Non-Functional Requirements

##### **1.2.01Alerts/Notification**

|  |  |
| --- | --- |
| Title | Alerts/Notification |
| Description | Alert users if a favorite food truck vendor is near by or after they’ve making a payment |
| Priority | 4 |
| Applicable FR(s) | * GPS Functionality * Vendor Payment |

##### **1.2.02Pick-Up Food Prep Tracker**

|  |  |
| --- | --- |
| Title | Alerts/Notification |
| Description | Track how long food will take to be ready. Notify when ready. |
| Priority | 5 |
| Applicable FR(s) | * Vendor Payment |

### System Constraints

#### Tool Constraints

##### **Mobile Application Framework Constraint**

|  |  |
| --- | --- |
| Title | Mobile Application Framework Constraint |
| Description | Vapor will be used as the framework for the application. It will allow us to use Swifts easy IOS capabilities. It will also allow use to MySQL to create databases. |
| Priority | 0 |

#### Language Constraints

##### **Swift Constraint**

|  |  |
| --- | --- |
| Title | Swift Constraint |
| Description | We will be mainly using Swift as the main programming language since it has good UX/UI capabilities and is the most well rounded IOS application language. It will be used to code a major amount of the backend/frontend. |
| Priority | 0 |

##### **MySQL Constraint**

|  |  |
| --- | --- |
| Title | MySQL Constraint |
| Description | We will be using MySQL as one of the languages as it is compatible with Vapor and Swift. It will be used to create databases to store important data for the project. |
| Priority | 1 |

#### Platform Constraints

##### **Mobile Phone Platform Constraint**

|  |  |
| --- | --- |
| Title | Mobile Phone Platform Constraint |
| Description | In order for the users and clients of the service to be able to use the app, they must have a phone running IOS. |
| Priority | 1 |

#### Hardware Constraints

##### **Necessary IOS Phone Requirement**

|  |  |
| --- | --- |
| Title | Necessary IOS Phone Requirement |
| Description | To run the application, without introducing cross platform compatibility, the user must have a suitable IOS phone device, which is commonly the iPhone, to run the application |
| Priority | 1 |

##### **Storage Constraints**

|  |  |
| --- | --- |
| Title | Storage Constraints |
| Description | To store user and client data, we will have MySQL to query data, but use Amazon LightSail as a server to store all data and compute directly from server side. |
| Priority | 4 |

##### **Computing Constraints**

|  |  |
| --- | --- |
| Title | Computing Constraints |
| Description | To compute data server side, we will sue Amazon LightSail as the cloud computing service and storage service |
| Priority | 1 |

#### Network Constraints

##### **Accessing Database**

|  |  |
| --- | --- |
| Title | Accessing Database |
| Description | Using MySQL, we will need to have access to the Database in order to grab data from user and truck user, such as menu, location and pricing |
| Priority | 0 |

##### **Editing Database**

|  |  |
| --- | --- |
| Title | Editing Database |
| Description | Using MySQL, we will need to be able to edit the database to update user and truck user locations, menu updates, and pricing. |
| Priority | 0 |

##### **Location Tracking**

|  |  |
| --- | --- |
| Title | Location Tracking |
| Description | Users must be connected to internet to show location of themselves in comparison with the trucks location and their own in order to give them realistic trucks they can go to and where they are located. |
| Priority | 0 |

#### Deployment Constraints

##### **Truck and User based in Same App**

|  |  |
| --- | --- |
| Title | Truck and User based in Same App |
| Description | The app that the user and truck will be using will be in the same app. This is used to simplify making a truck available on the App and allows for less confusion between connecting to IOS apps. |
| Priority | 3 |

#### Transition & Support Constraints

##### **Github**

|  |  |
| --- | --- |
| Title | GitHub |
| Description | We will be using a GitHub repository to store the code for the project |
| Priority | 5 |

##### **Lightsail**

|  |  |
| --- | --- |
| Title | Lightsail |
| Description | We will be using a LightSail to compute the code with swift acting as the main language as to support its databse. |
| Priority | 3 |

#### Budget & Schedule Constraints

< List all budget & schedule constraints in the following example format >

##### **Budget Constraints**

|  |  |
| --- | --- |
| Title | Budget Constraints |
| Description | As we have no money, the budget shall be 0 |
| Priority | 5 |

### Requirements Modeling

##### **UML Use Case Diagram**

Diagram, schematic

Description automatically generated

### Evolutionary Requirements

#### Functional Requirements

< List all functional requirements in the following example format >

##### **Android/Windows applications**

|  |  |
| --- | --- |
| Title | Android/Windows applications |
| Description | The mobile application will be ported into an android/windows application to allow non-apple users to use MuckTruck |
| Priority | 4 |
| Precondition(s) | Good performance on apple app |
| Postconditions(s) | New market of users is introduced  Cross-platform compatibility |

4.1.2 User CC information

|  |  |
| --- | --- |
| Title | User CC information |
| Description | The user will be allowed to pay by inputting their credit card information. Can also save their cc info to use on a later order. |
| Priority | 1 |
| Precondition(s) | Vendor/Users logins through existing account or SSO account |
| Postcondition(s) | CC information encryption |

#### Non-Functional Requirements

< List all non-functional requirements in the following example format >

##### **CC information encryption**

|  |  |
| --- | --- |
| Title | CC information encryption |
| Description | Safely encrypt the credit card information for users. |
| Priority | 0 |
| Applicable FR(s) | 4.1.2 |

#### 4.2.2 Cross-platform compatibility

|  |  |
| --- | --- |
| Title | Cross-platform compatibility |
| Description | Allows users to interact across all supported platforms |
| Priority | 4 |
| Applicable FR(s) | 4.1.1 |