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# **Software Requirements Specification**

**for**

## **Aunties Assemble**

**Version 1.0 (approved)**

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## Revision History

Name	Date	Reason For Changes	Version

# **1. Introduction**

## **1.1 Purpose**

*Since the UAE has a huge population of low-educated expats, 'Aunties Assemble' app aims to allow the unemployed expat spouses/mothers to offer their cooking services to customers in the local area on a small scale.*

## **1.2 Document Conventions**

The document uses Arial font of size 11. Every requirement statement is to have its own priority.

## **1.3 Intended Audience and Reading Suggestions**

This document is prepared for project managers, developers, marketing staff and along with users and testers.

## **1.4 Product Scope**

The application/software aims to allow the unemployed people to increase their living standards by earning some extra income on a casual basis and use their home-economic skills and monetize them. It will aid the unemployed expats to increase their income and living standards. For the local residents, it aims to provide a greater range of culinary options according to their traditional/cultural food tastes. Thirdly, the app is for tourists to enjoy home-made traditional dishes and experience the culture and food to its fullest.

## **1.5 References**

No external material referenced in this document.

## 2. Overall Description

### 2.1 Product Perspective

This system is a new self-contained product which aims to be integrated into the food delivering chain within the UAE such as being a part of UberEats, Deliveroo or Zomato etc. It aims to provide employment opportunities to the unemployed expats within the UAE.

The core new feature of our product is that it enables individuals (not only established restaurants) to sell food and earn extra income. We will achieve this by working with the UAE authorities (pending approval) to obtain food licenses for individuals who register on our website. This feature is our competitive edge that will set us apart from existing application.

### 2.2 Product Functions

- 1) Sellers can register to be a local vendor
- 2) Sellers can create their own page to market their own food options/menu
- 3) Sellers receive and accept notifications of the orders
- 4) Sellers can push their delivery requests onto the central platforms such as UberEats and Deliveroo
- 5) Sellers can set up the payment option and receive payment respectively
- 6) Delivery application/people gets the notification of the pickup and drop off location
- 7) Customers can browse through pages/filters
- 8) Customers can make orders according to their preference
- 9) Customers can make payments to the vendors
- 10) Customers can publish their ratings/reviews about the vendors

### 2.3 User Classes and Characteristics

We will have 3 main user classes: Admin, Customers, Sellers. With Admin having characteristics about login information (storing username, password), their unique\_id, role in the system. Sellers will have the characteristics of login, having a menu for their services/food, their preferred payment receiving option, preferred delivery method to the customer, time open for serving and reviews.

Customers will have the characteristic of a login, shopping cart, browsing feature to choose from the given menu items, their preferred payment method.

## **2.4 Operating Environment**

We are planning it to be an Android or/and iOS based application which will be accessible by the audience we are trying to attract through our idea. It could also be built on a website using JavaScript, HTML and CSS.

## **2.5 Design and Implementation Constraints**

A relational database would be preferred which would require someone experienced with handling databases and designing them. The developers will have to construct an elegant yet simple design for the application since it should be easy to navigate and user friendly for it to work effectively.

## **2.6 User Documentation**

The user documentation will include a tutorial as well as ways to get in touch with the developer team. The documentation need not be long because the application will be designed with the goal of simplicity and user friendliness.

## **2.7 Assumptions and Dependencies**

Assuming we will get the license for these sellers from the UAE government, this application would be successful. Otherwise, the whole business idea would not work due to the legal constraints of getting food licenses for these vendors given the strict laws of the UAE.

To reach the targeted audience, we would need data from the UAE government about the expats. We are assuming that we will be able to access this data easily. However, it would be hard to collect in reality given the lack of transparency from the UAE government in extracting confidential datasets.

We're also assuming that the targeted audience will have devices such as smartphones or desktop to use our application/ software.

We are also assuming we will be able to make a deal with the third-party organizations such as UberEats and Deliveroo easily.

## 3. External Interface Requirements

### 3.1 User Interfaces

The home/landing page would look like the ones in Zomato or Deliveroo. In the application when you first open it, you will be required to choose whether you want to be the customer or the seller and make the account accordingly. There will be a button on the side of the screen where the users will be able to change the language according to their preferences. Arabic, Urdu, Hindi, and English will be the main languages used for the application and will continue to add more. There will be a category dropdown button where you will be able to choose from ethnic homemade cuisines provided by the sellers. This will depend on how diverse our sellers are.

For customers there will be a shopping cart button so that they can check what they've ordered or selected. And after they're done with ordering, it will lead to a payment page where it will look like the usual 'Amazon or Noon' like payment page where you choose what payment method you'll prefer given by the sellers and accordingly put their details. Afterwards they'll be led to the page where the details about ETA will be provided to the customers.

For the sellers, it will be an interface where automatically the screen would keep updating according to the chosen items by the customers and they will have the option to accept their order/payment method and keep updating when they've started making their order, finished the order, sent for delivery or whatever their preferred delivery option is.

### 3.2 Hardware Interfaces

The application will be used primarily on Apple and Android mobile devices for both sellers and customers. These devices use the IOS and Android operating systems respectively.

If the sellers ever plan to expand their business, they will have to install a system with desktops and monitors specifically catering our application so it would make the process of updating each step on their end easier. That way another layer of hardware interface would be needed. Otherwise, the application will be supported by smartphones and a good internet connection.

### 3.3 Software Interfaces

The application will need to interact with a database (for example a SQL database), phone operating system and its several components, as well as online payment modules offered by banks. The app will need to communicate with the phone OS (Android or IOS) to use authentication methods such as fingerprint or face recognition, pull data from the location service to facilitate food delivery, and send messages to the notification system to alert users when they are running the application in the background. The app also needs to communicate with payment modules to issue a transaction request to the system of banks and receive payment status from that system. Finally, the app must be able to interface with delivery applications such as Deliveroo/UberEats to facilitate delivery

## **3.4 Communications Interfaces**

The web-based application will be using the HTTP protocol. The current plan is to facilitate authentication through third-party authentication such as OAuth via Google or Facebook.

# **4. System Features**

## **4.1 Registration (Customer and Seller)**

### **4.1.1 Description and Priority**

This would allow the users to identify their main use of the application. They'll either be customers or sellers. This would be the top priority (High) in our system because later interfaces will depend on this choice.

### **4.1.2 Stimulus/Response Sequences**

As soon as they open the application this will be the first thing they'll see on the screen.

### **4.1.3 Functional Requirements**

1. You choose to be a customer or a seller
2. Then you make an account according to your selection
3. Put in your login info, address and other details
4. Preferred payment option for sellers (extra thing if you select seller)

## **4.2 Creation of Food Menu**

### **4.2.1 Description and Priority**

This would allow the sellers to make their own page for the food options/menu they're going to be providing to the users. This would be the next top (High) priority in our system because later interfaces for the browsing through food menus for customers will depend on it.

### **4.2.2 Stimulus/Response Sequences**

After the user has chosen to be the seller in the registration feature and made an account, the application will lead them to this page.

### **4.2.3 Functional Requirements**

1. Click "add" to add an item
2. Add item name
3. Add item picture
4. Add a short description for the item



5. Add the price for the item

## **4.3 Notification of the orders**

### **4.3.1 Description and Priority**

This would allow the sellers to accept or reject orders and also push notifications on the customer end, so they know what's the progress of their order. This would be really important to keep updating the system and keep the customer satisfied. (Medium Priority)

### **4.3.2 Stimulus/Response Sequences**

After the customers have placed the orders and with every increment in the order procedure this will be initiated.

### **4.3.3 Functional Requirements**

1. The app communicates with the phone's OS to push a notification
2. The seller can press either "accept" or "decline" button, result of which will be communicated to the customer's side

## **4.4 Payment Methods**

### **4.4.1 Description and Priority**

This would allow the sellers to set up their preferred payment methods and also the customer to choose the payment methods among the given preferred methods from the sellers. This will be a top priority after the customer has chosen what to order. (Medium Priority)

### **4.4.2 Stimulus/Response Sequences**

After the customers have placed the orders and after the sellers have made their accounts where they will be prompted to set up their preferred payment methods.

### **4.4.3 Functional Requirements**

1. Choose payment method (for example, credit card)
2. Link the app to the relevant third-party platform to finish the payment process

## **4.5 Browse through Food pages**

### **4.5.1 Description and Priority**

This would allow the customers to browse through the given food options by the sellers. This will be essential to our application as it's through where the customers will have the options and order what they like. (High Priority)

### **4.5.2 Stimulus/Response Sequences**

After the registration, the user has chosen to be the customer and account has been made. This will be the next page the application would lead them to.

#### 4.5.3 Functional Requirements

1. A scroll page featuring the name, picture, and culinary style of each seller
2. Upon clicking on a seller's home page, display a scroll page, each element being an item offered by the seller
3. For each item, a "+" and a "-" will be on the right side of the panel, facilitating ordering
4. If one or more items are ordered, display a check-out button at the bottom of the page

## 4.6 Ratings/ Reviews

#### 4.5.1 Description and Priority

This would allow the customers to give reviews to the sellers so that other customers can check the reviews, and this would ease in the process of browsing through the different vendors and food menus. This would also allow the sellers to improve their food service quality. This would be the last on our priority list as it's a feature which depends on the popularity of our application. (Low Priority)

#### 4.5.2 Stimulus/Response Sequences

After the customers are done with food, they will be able to give reviews to the sellers.

#### 4.5.3 Functional Requirements

1. Customers could write up reviews for their order and rate the vendors out of 5 stars.

## 4.7 Connecting with Delivery applications

#### 4.7.1 Description and Priority

This would allow the sellers to take advantage of the already existing applications such as Deliveroo and UberEats to make it more convenient for the customers to trust the delivery service. This will be an upgrade feature and will be on the lower end of the priorities as it will involve having business agreements with these third-party organizations. (Low Priority)

#### 4.7.2 Stimulus/Response Sequences

After the order has been processed by the seller and the order will be ready to be delivered.

#### 4.7.3 Functional Requirements

1. After the order has been processed, it connects to the delivery option chosen by the customer
2. The delivery service is notified about the order and location where to pick the order from and where to drop it

## **5. Other Nonfunctional Requirements**

### **5.1 Performance Requirements**

The application needs to be accessible during the times in a day when people are likely to cook and order food. A reasonable time of operation for the app would be from 8AM to midnight. The server needs to be up and running during this time everyday and this poses design requirements for the reliance and maintainability of the app.

### **5.2 Safety Requirements**

Since the app facilitates the sale of food, it is of utmost importance that a mechanism is in place to ensure the safety of the food prepared by vendors. This could only be done by establishing a partnership with relevant authorities, where applications to become a vendor are checked and relevant inspections are conducted such that only government-approved vendors may sell food through the platform.

### **5.3 Security Requirements**

The app should protect user information such as their address, contact, and payment details. Accounts need to be created for users who want to interact with the application and authentication process will be in place to protect user information. As for payment information, it will be protected by the third-party payment mechanism that will be integrated with the app.

### **5.4 Software Quality Attributes**

Given that the target users of the app may not be tech-savvy, the app needs to be very easy to use, with clear instructions devoid of any unnecessary information that may confuse the user. Moreover, given the variety of languages spoken by the potential users, the platform needs to be presented in a number of languages, which will be decided based on the most common languages spoken by unemployed expats in the UAE.

### **5.5 Business Rules**

The users of the app can be divided into the vendor and the customer, and vendors sell their home-cooked food to the customers.

## 6. Other Requirements

We would need to decide on the database management system to use and also the database. Moreover, we would need to prepare legal documents to finalize deals with the third party organizations and also get the licenses for the vendors from the UAE government.

## 7. Requirement Gathering

Our approach to gathering software requirements was predominantly based on observation and some document analysis. Many applications exist which provide food delivery services and as our application is focused on achieving the same goal for a particular segment of the market we could determine many of our requirements based on existing applications such as Deliveroo and UberEats.

### 7.1 Vendor Side Requirement Gathering:

To gain information about how vendors would use our app we did a document analysis of JustEat<sup>1</sup> and Deliveroo<sup>2</sup> registration guidelines and utilized observation based on online tutorials of how UberEats works for restaurants.<sup>3</sup> From this video we were able to determine the features of an existing application which is similar to our own.

1. Registering as Vendor:
  - a. Potential Vendors complete form with information about:
    - i. Restaurant name
    - ii. Restaurant Address
    - iii. Contact Number
    - iv. Email Address
    - v. Phone Number
  - b. Vendors Upload a menu, ID, and proof of ownership
  - c. Delivery company confirms details and legal registration information
  - d. Vendor is sent a tablet to begin processing order and can begin selling food
2. Receiving and Processing Order
  - a. Open UberEats Application
  - b. Sign in with registered information
  - c. New Order appears on the left side bar
  - d. Vendor taps order to accept and can see order details with additional information:
    - i. The order pickup time

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<sup>1</sup> <https://restaurants.just-eat.co.uk/>

<sup>2</sup> <https://restaurants.deliveroo.com/en-gb/>

<sup>3</sup> [https://www.youtube.com/watch?v=LBS-cY5NYKw&t=75s&ab\\_channel=TaylorHarris](https://www.youtube.com/watch?v=LBS-cY5NYKw&t=75s&ab_channel=TaylorHarris)

- ii. Additional buyer requests (e.g. additional napkins)
- e. Buyers can also schedule orders hours or days before. The vendor can accept these, and they go into scheduled orders. Order will reappear when it is time for order to be prepped and delivered.
- f. Vendor tries to prepare order before scheduled pick up time
- g. When pick up time is close, UberEats will match vendor with nearby delivery drivers
- h. Vendor can tap 'Food is Done' to indicate order is ready before estimated order pick up time and a driver will be matched ahead of schedule
- i. If a vendor is struggling to fulfil order, they can either select delay or cancel order
  - i. If running a few minutes late, vendor selects delay and indicated how much longer they need in minutes
  - ii. If they cannot fulfil order, vendor selects cancel and UberEats informs buyer
- j. If vendor is no longer accepting new orders they can 'Pause New Orders'
- k. Vendor can track matched delivery driver via the app. They can see driver name, photo and their position on a map.
- l. Vendor matches order with delivery driver based on unique order number
- m. Order moved to 'Out for Delivery Section' and vendor can track all the way to the customer
- n. When the delivery is complete the order moves to 'Order History'
- o. If an order is sold out, vendor marks product as 'Unavailable Today' or 'Unavailable Indefinitely'.

Specification Drawn from Analysis and Documentation:

1. Registration
  - a. Vendors Register by providing similar information
  - b. In the final implementation there will be a waiting period between registration and access to selling while we verify individual user credentials with UAE authorities
2. Receiving and Processing Orders
  - a. User opens application
  - b. Signs in with registered information
  - c. New Orders will appear on page
  - d. Vendor taps order to accept and can see order details
  - e. Vendor can tap 'Food is Done' to indicate order is ready before estimated order pick up time and a driver will be matched ahead of schedule
  - f. If vendor is no longer accepting new orders they can 'Close Restaurant'
  - g. When the delivery is complete the order moves to 'Order History'

## **7.2 Buyer Side Requirement Gathering:**

To gain information about how customers would use our app we did an observational study of existing food app users and completed our analysis based on how individuals utilize existing apps (UberEats and Deliveroo) to order food. From these observations we could identify requirements for the customer to have a positive user experience.

1. Registering as a Customer
  - a. User opens application and selects register
  - b. Enters email
  - c. Enters phone number and is sent phone verification
  - d. Confirms phone number
  - e. Creates a password
2. Ordering food
  - a. User opens application and browses different restaurants
  - b. Selects restaurant
  - c. Selects food items to add to basket
    - i. Items may require indication of size of order (e.g. small/medium/large)
  - d. When user is ready, they view basket which summarizes order and cost
  - e. User selects go to checkout
  - f. User inputs address
  - g. User inputs payment method
  - h. User makes purchase
  - i. User is informed about progress of order and delivery driver
  - j. User receives order
  - k. User has option to tip and rate driver

Specification Drawn from Analysis:

1. Registering as a Customer
  - a. User opens application and selects register
  - b. Enters email (will be verified through email and not phone number)
  - c. Creates a password
2. Ordering food
  - a. User opens application and browses different restaurants
  - b. Selects restaurant
  - c. Selects food items to add to basket
  - d. When user is ready, they view basket which summarizes order and cost
  - e. User selects go to checkout
  - f. User inputs address
  - g. User inputs payment method
  - h. User makes purchase
  - i. User receives order