Software Requirements Specification

For

Food Pantry System

Table of Contents

Table of Figures

Figure 1 System Block Diagram

Figure 2 Food Pantry System Use Cases

Figure 3 Sign in Activities

Figure 4 Log out Activities

Figure 5 Make a Pickup Order Activities

Figure 6 Make a Search Query Activities

1. Introduction
    1.1.   Purpose

This Software Requirements Specification (SRS) is intended to provide a detailed description of the Food Pantry System that will be integrated into food pantries and food banks. The SRS will also provide the developers with a guided framework that is required to implement the system functionality to ensure the system is successfully built and deployed.

    1.2.   Scope

This document specifies the requirements for the following capabilities.
        1. The Food Pantry System
        2. The Database
        3. The User Interface

    1.3.   Definition

BDD: Block Definition Diagram.
SRS: Software Requirements Specification.
UML: Unified Modeling Language.

    1.4.   Overview

This document follows the recommended format specified in IEEE Std 830-1998 IEEE Recommended Practice for Software Specifications. For Section 3, the specific template A.5 for organizing information by feature is followed.

2. Overall Description
    2.1.   Product Perspective

The Food Pantry System is intended to be a stand alone Mobile Application that is accessible on a smartphone. This document specifies capabilities for the Software Developer to design and develop the mobile application. Figure 1 System Block Diagram shows the system overview, using a Unified Modeling Language (UML) Block Definition Diagram (BDD).
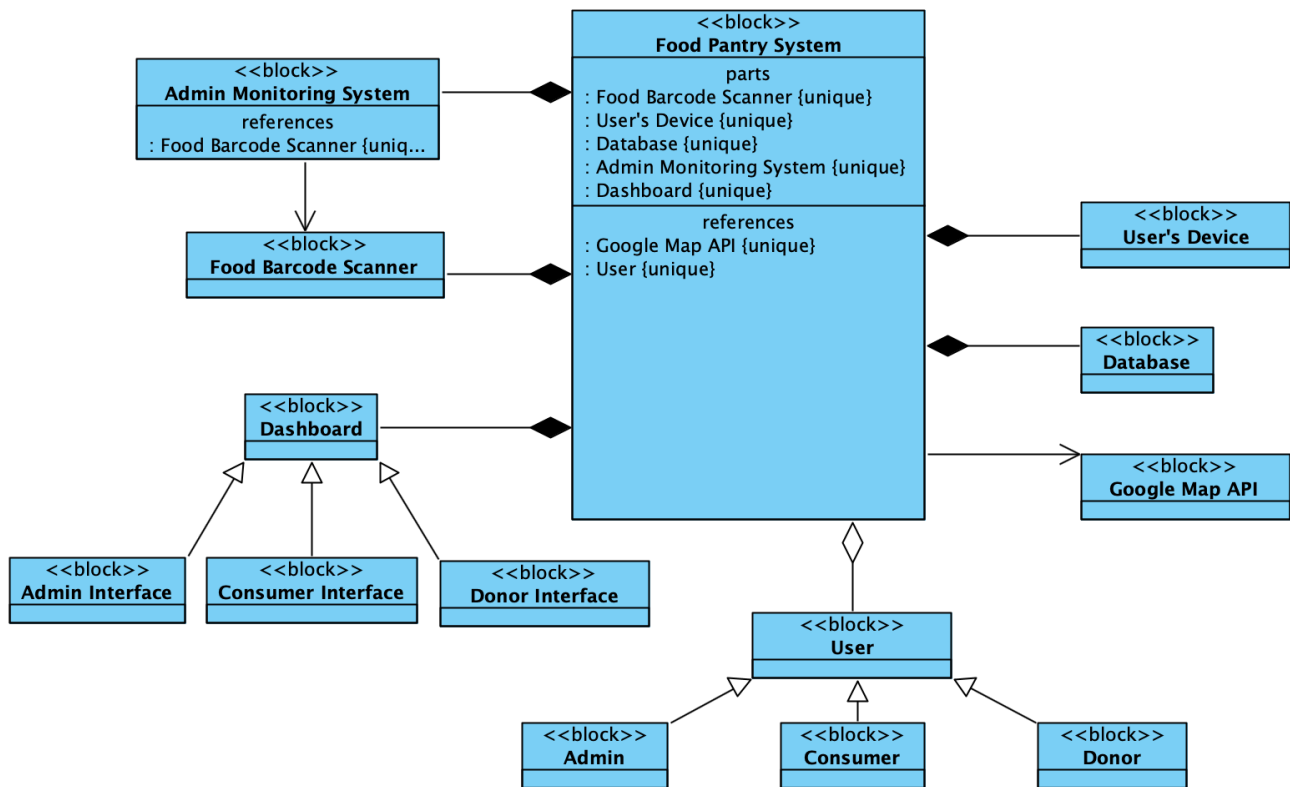
Figure 1: System Block Diagram

2.2.   Product Functions

The following use case diagram depicts the actors of the system, and the intended way in which they will interact with the system.
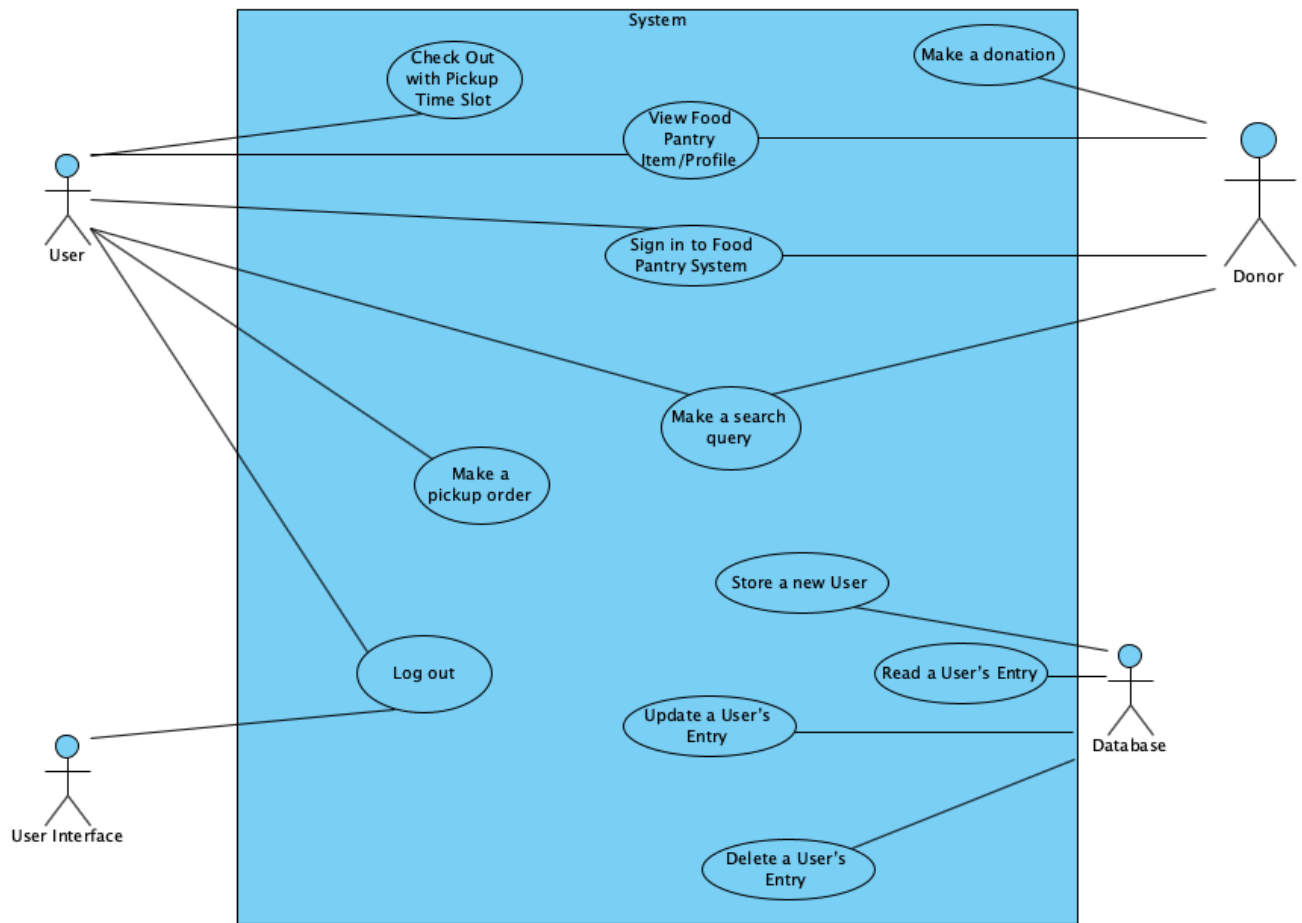

Figure 2: Use Case Diagram

2.3. Use Case Descriptions

2.3.1. Sign into the app

General Characteristics	
Intent	Allow the customer to sign in to page
Scope	UI
Primary Actor	User (consumer/admin/donor)
Secondary Actor	UI
Preconditions	User has successfully created an account
Assumptions	User wants to sign into page
Trigger	User wants to enter the food pantry system
Success Post Condition	User has signed into page
Failed Post Condition	User does not have an account and needs to sign up

Normal Flow

Step	Action
Start	This Scenario begins when the food pantry system sign in page successfully loads
1	The user is presented with an option to either sign in or sign up as a new customer
2	The user selects the sign in option using the "Sign In" button on the Consumer Interface
3	The user enters the correct credentials using the Input Fields present of the database
4	The Use Case ends when the consumer enters the Consumer Interface and is presented with a list of available pantries

6

2.3.2. Log out of system

General Characteristics	
Intent	Allow the customer to log out of the pantry system
Scope	UI
Primary Actor	User
Secondary Actor	UI
Preconditions	User has successfully logged in to the portal
Assumptions	User has the option to log out anytime
Trigger	Successful completion of the Sign in Use Case
Success Post Condition	User is logged out of the system
Failed Post Condition	User is unable to log out

Normal Flow

Step	Action
Start	This Scenario begins when the user is signed into the user database
1	The user is presented with an option to log out
2	The user selects the log out option
3	The user is logged out out of the system
4	The user's cache and cookies are cleared by the system
5	The Use Case ends when the user is rerouted to the landing page or sign in page

2.3.3. Make a Pickup Order

General Characteristics	
Intent	Allow the customer to make a pickup order to a specific pantry

Scope	Order System
Primary Actor	Consumer
Secondary Actor	Order System
Preconditions	Consumer has successfully logged in to the portal
Assumptions	There are pantries with food availability
Trigger	Successful completion of the Sign in Use Case
Success Post Condition	A pickup order is placed with the pantry
Failed Post Condition	Consumer is unable to place an order with the pantry

Normal Flow

Step	Action
Start	This Scenario begins when the consumer has successfully logged in to the portal with the right credentials
1	The Consumer Interface makes a call to the Database to obtain the list of available pantries
2	The Database returns the list of available pantries to the Consumer Interface
3	The Consumer Interface presents the list of available pantries to the Consumer
4	The Consumer selects a specific pantry from the list of available pantries
5	The Consumer Interface makes a call to the Database to obtain the list of available items in the chosen pantry
6	The Database returns the list of available food items to the Consumer Interface
7	The Consumer Interface displayed the list of available food items and their respective quantities to the Consumer
8	The Consumer selects the item/s and choose the desired quantity

9	The Consumer adds the item/s to the cart by using the "Add to Cart" button on the Consumer Interface
10	The Consumer completes the Check Out with Pickup Time Slot Use Case
11	The Consumer gets presented with a confirmation message on their screen
12	The Use Case ends when the user gets a receipt emailed to their registered email address.

2.3.4.   Make a Search Query

General Characteristics	
Intent	Allow the customer to search for pantries and items around its area
Scope	Search System
Primary Actor	User
Secondary Actor	Search System
Preconditions	User grant access to its location
Assumptions	There are pantry and items that meets user's requirement
Trigger	User enters a keyword into search bar or selects the filter options and clicks on the 'Search' button
Success Post Condition	The user finds its ideal things that fits its requirement
Failed Post Condition	User was unable to find items that meets its requirement

Normal Flow

Step	**Action**
1	This scenario begins when the user successfully grant access to its location
2	The user inputs a keyword into the search field
3	The user selects the filter options available like mile radius, dietary preferences/restrictions, availability of item, open now.
4	The user is presented with a query for the given keyword and filters

5	The user will be display with the items and pantry query results separately

2.3.5.   Make a donation

General Characteristics	
Intent	Allow the donor to make a donation
Scope	Database
Primary Actor	Donor
Secondary Actor	Database
Preconditions	Donor has successfully logged in to the portal
Assumptions	Donor wants to make a donation to the Food Pantry
Trigger	Successful completion of the Sign in Use Case
Success Post Condition	Donor has made a donation to the Pantry
Failed Post Condition	Donor is unable to make a contribution

2.3.6.   View Food Pantry Item/Profile

General Characteristics	
Intent	Allow the consumer to view a food pantry item
Scope	UI / Pantry page
Primary Actor	User
Secondary Actor	UI
Preconditions	User has successfully logged in to the portal
Assumptions	User is making a pick up order or is browsing food pantry items
Trigger	Successful completion of the Sign in Use Case
Success Post Condition	User has viewed food pantry item information
Failed Post Condition	User is unable to view food pantry item information

2.3.7. Check Out with Pickup Time Slot

General Characteristics	
Intent	Allow the customer to select the pickup time slot for their order
Scope	Order System, Mobile App
Primary Actor	Consumer
Secondary Actor	Order System
Preconditions	User has successfully added the items to the cart
Assumptions	The pantry is allowing pickup of placed orders
Trigger	Successful completion of the Make a Pickup Order Use Case
Success Post Condition	The pickup slot is reserved for the User and the Pantry is notified of the Pickup Order
Failed Post Condition	User is asked to check back when a pickup slot is made available from the pantry

2.3.8. Store a new User on Database

General Characteristics	
Intent	Allow Database to store a User's account
Scope	Database
Primary Actor	Database
Secondary Actor	User
Preconditions	User has successfully logged in to the portal
Assumptions	Database has memory to store a User
Trigger	Successful completion of the Sign in Use Case
Success Post Condition	Database stores User account credentials
Failed Post Condition	Database is unable to store User's account

2.3.9. Read a User's Entry on Database

General Characteristics	
Intent	Allow Database to read a User's account
Scope	Database
Primary Actor	Database
Secondary Actor	User Interface
Preconditions	The User's Entry exists on the Database
Assumptions	The User Interface has requested user information from the database
Trigger	The User Interface sends a read request to the database
Success Post Condition	The User information is returned to the User Interface
Failed Post Condition	The Database returns a relevant error message to the User Interface

2.3.10. Update a User's Entry on Database

General Characteristics	
Intent	Allow Database to update a User's information on the current document
Scope	Database
Primary Actor	Database
Secondary Actor	User Interface
Preconditions	User's Entry already exists on the Database
Assumptions	User has typed in the updated information on the User Interface
Trigger	The User Interface sends a request to update User's information to the Database
Success Post Condition	Database updates User account credentials on the current User Entry
Failed Post Condition	Database sends a relevant error message back to the User Interface

2.3.11.   Delete a User's Entry on Database

General Characteristics	
Intent	Allow Database to delete a User's account
Scope	Database
Primary Actor	Database
Secondary Actor	User Interface
Preconditions	User has successfully logged in to the portal
Assumptions	Database can remove a User from memory
Trigger	Successful completion of the Sign in Use Case
Success Post Condition	Database deletes User from Database
Failed Post Condition	Database is unable to delete User's account

3.   Specific Requirements
    3.1.   System Features
        3.1.1.   The system software supports the Use Cases described in Figure 2 Food Pantry System Use Cases.
            3.1.1.1.   Sign in to the app
                3.1.1.1.1.   This feature allows the User (Admin, Consumer, or Donor) to sign in to the Food Pantry System through the User Interface
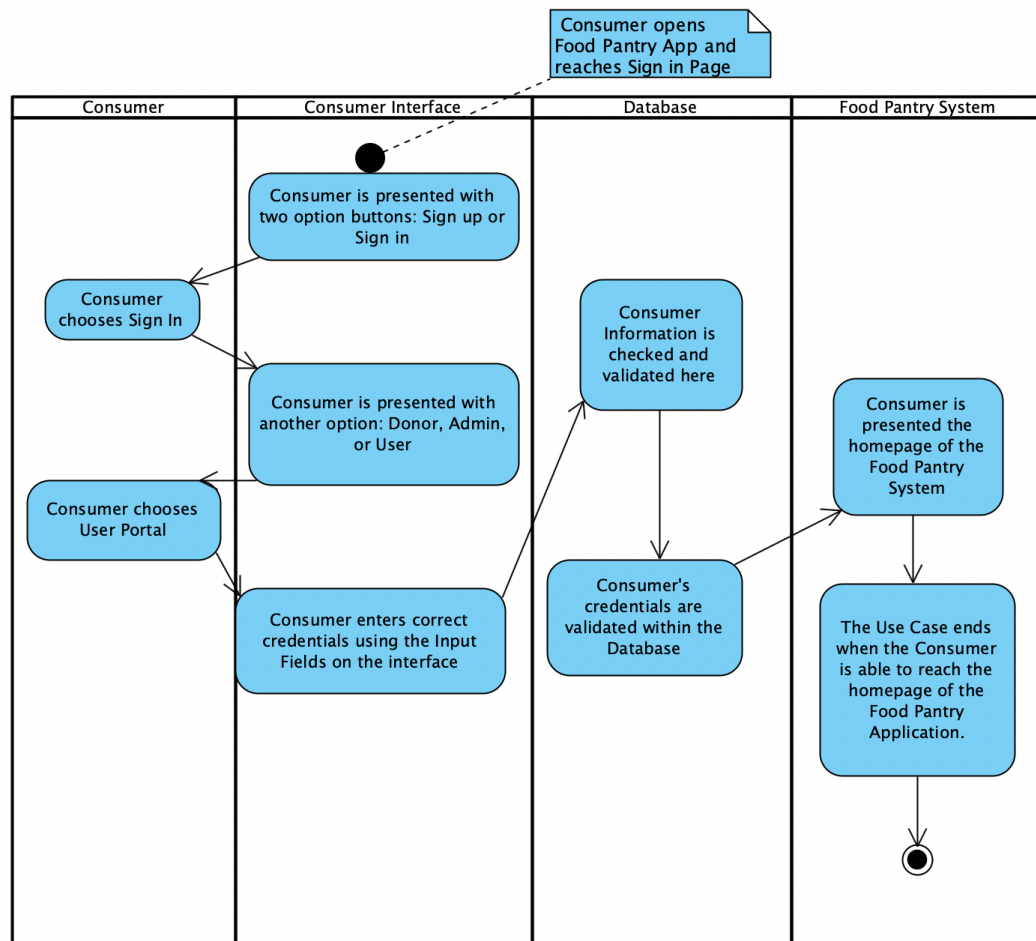   3.1.1.1.2.   Stimulus/Response Sequence

Figure 3 Sign In Activities

3.1.1.1.3.   Associated Functional Requirements

    3.1.1.1.3.1.   The Consumer Interface **shall** provide the Consumer with a button to select 'Sign in' or 'Sign up'.

    3.1.1.1.3.2.   The Consumer Interface **shall** provide the Consumer with a button to select 'Donor', 'Admin' or 'User' portal to sign in.

    3.1.1.1.3.3.   The Consumer Interface **shall** provide a sign in display that enables Consumers to put their account details in.

3.1.1.1.3.4.   The Consumer Interface **shall** provide the
Consumer with a homepage specific to their
account (Admin homepage, Donor homepage,
Customer homepage)

3.1.1.2.   Log out of the system

    3.1.1.2.1.   This feature allows the current User to log out of the Food
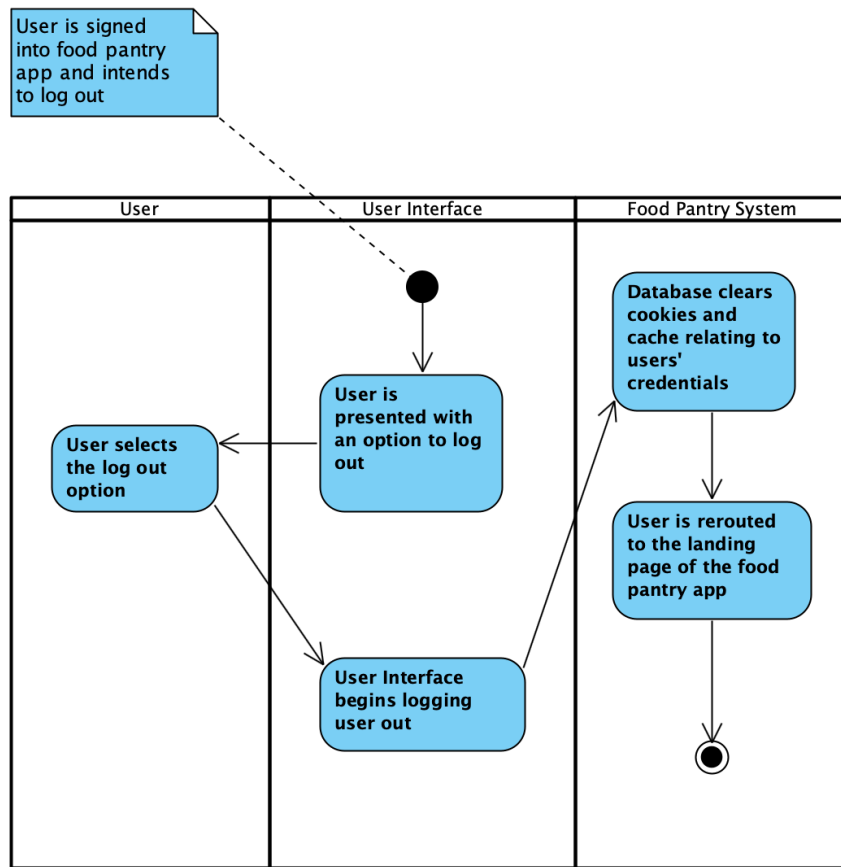Pantry Application.

    3.1.1.2.2.   Stimulus/Response Sequence

Figure 4 Log-Out Activities

    3.1.1.2.3.   Associated Functional Requirements

        3.1.1.2.3.1.   The Consumer Interface **shall** provide the
Consumer with a button to select 'Log out'

        3.1.1.2.3.2.   The User **shall** be re-routed to the landing page
after logging out

3.1.1.3.   Make a pickup Order

3.1.1.3.1.   This feature allows the current user to select a time slot for them to pick up food from the pantry

3.1.1.3.2.   Stimulus/Response Sequence
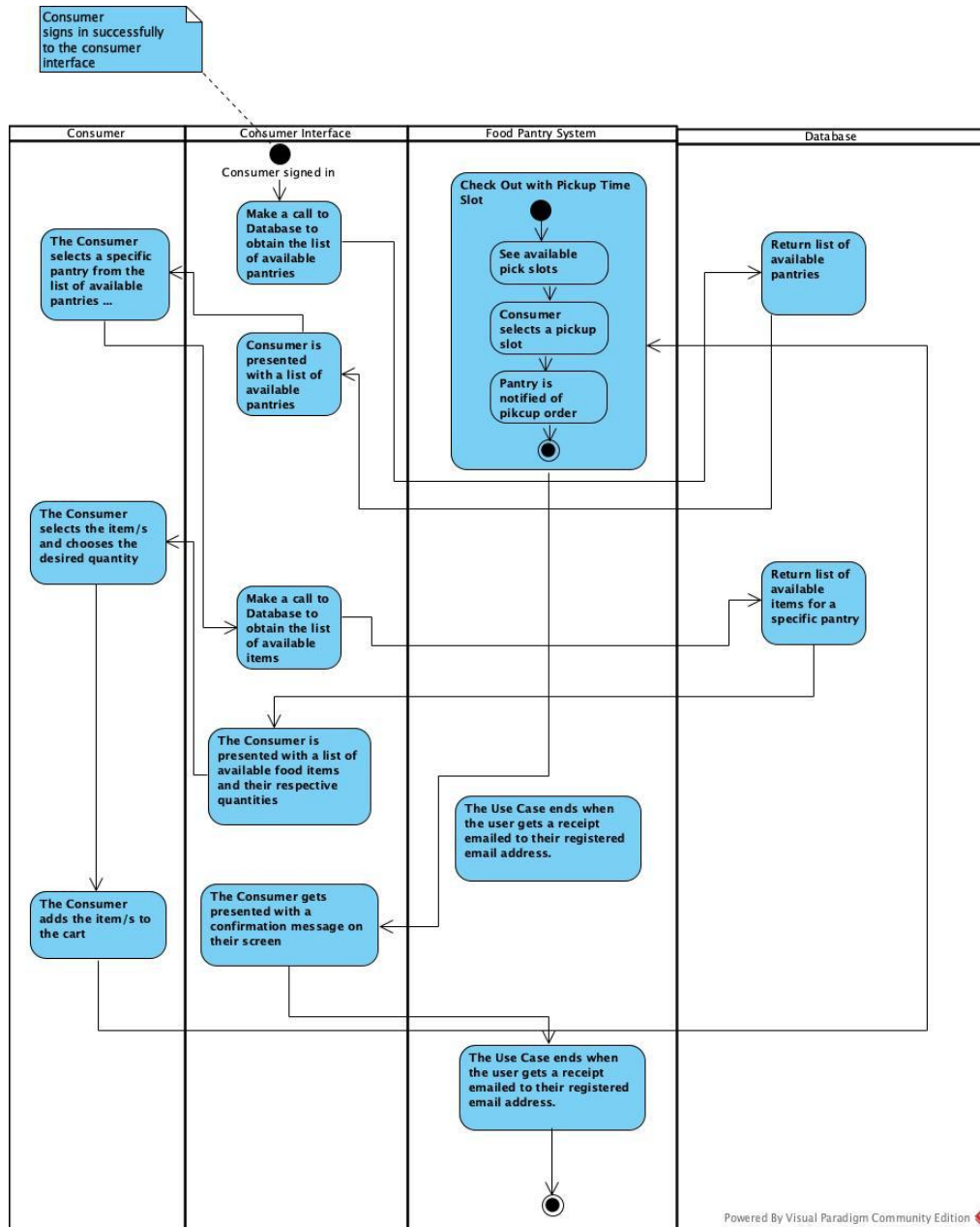

Figure 5 Make a Pickup Order Use Case

3.1.1.3.3.   Associated Functional Requirements

3.1.1.3.3.1.   The Consumer Interface **shall** provide the Consumer with a button to select a pantry

3.1.1.3.3.2.   The Consumer Interface **shall** provide the Consumer with a button to select an individual item

3.1.1.3.3.3.   The Consumer Interface **shall** provide the Consumer with a button to add the currently selected item to the cart.

3.1.1.3.3.4.   The Consumer Interface **shall** provide the Consumer with a button to open the Cart

3.1.1.3.3.5.   The Consumer Interface **shall** provide the Consumer with a button to check out the current items

3.1.1.3.3.6.   The Consumer Interface **shall** provide the Consumer with a button to select a specific Pickup Slot

3.1.1.3.3.7.   The Consumer Interface **shall** provide the Database with data that needs to be stored, in a JSON format.

3.1.1.3.3.8.   The Database **shall** have the ability to take queries from the Consumer Interface with filters

3.1.1.3.3.9.   The Database **shall** have the ability to return the queried data as a JSON object to the Consumer Interface

3.1.1.3.3.10.   The Database **shall** have the ability to store Pickup Orders that are placed by The Consumer

3.1.1.4.   Make a Search Query

3.1.1.4.1.   This feature allows User (Consumer, or Donor) to search for food pantries to fits their requirement (filter)
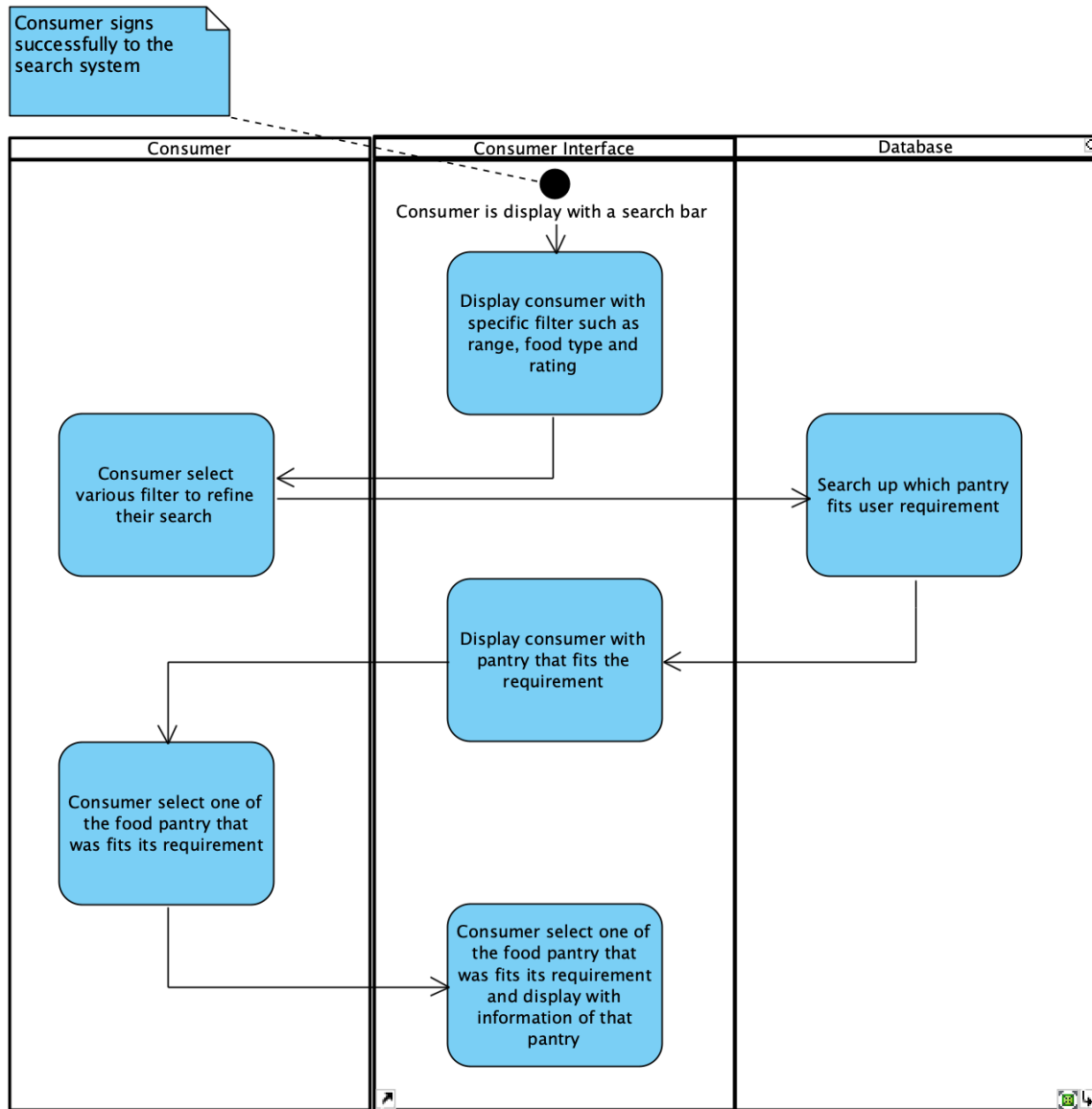
17

3.1.1.4.2.   Stimulus/Response Sequence

Figure 6 Make a Search Query Use Case

3.1.1.4.3.   Associated Functional Requirements
3.1.1.4.3.1.   The Consumer Interface **shall** provide the Consumer with a button to select 'Search'

3.1.1.4.3.2. The User **shall** be able to search pantries based on their current location

3.1.1.4.3.3. The User **shall** be able to filter search result based on dietary preferences

3.1.1.4.3.4. The Food Pantry system **shall** ensure that user location are encrypted and stored securely

3.1.1.4.3.5. The system **shall** have a UI displaying pantry to select, and basic information of the pantry

3.1.1.4.3.6. The filters **shall** be easily accessible on the User Interface and can be applied or removed with a single click