SOFTWARE ENGINEERING LAB

EXERCISE NO 1B

SOFTWARE REQUIREMENT SPECIFICATIONS

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31 August 2018

Fast Food on Wheels Delivery System

Contents

1 Introduction

A client is requesting the implementation of custom tailored fast food delivery software management system to run on a server (or on cloud computing service). The kinds of fast food normally to be served include, Pizza, Hamburgers, Hot-dogs, etc. You can safely assume that the restaurant has preset limited types of fast foods, except that clients can choose, add or refuse, condiments and dressings. The system runs a back-end service which manages all the essential databases, e.g., available dishes, customers and customer orders, stocks of ingredients for the dishes, employees - part-timers and full-timers, managers, suppliers of stocks, etc. The front-end services feature interfaces for interacting with the management systems.

1.1 Problem description of what is to be build

The lack of the system that allows the custumer to make multiple orders and schedule delivery of all the orders in real time.

1.2 Methodology

The goal of the project is to create a system that will allow the customer to make multiple orders online using possible devices such as tablet, laptop, mobile-devices and desktop application. The system will be used by the customer, restaurant manager and the system admininstrator.

1.3 Hypothesis

The system should allow the customer to see the menu and add an item or multiple items to the menu, order the food, choose whether they want their order to be delivered or he/she will pick it up.If they want their order to be delivered then they

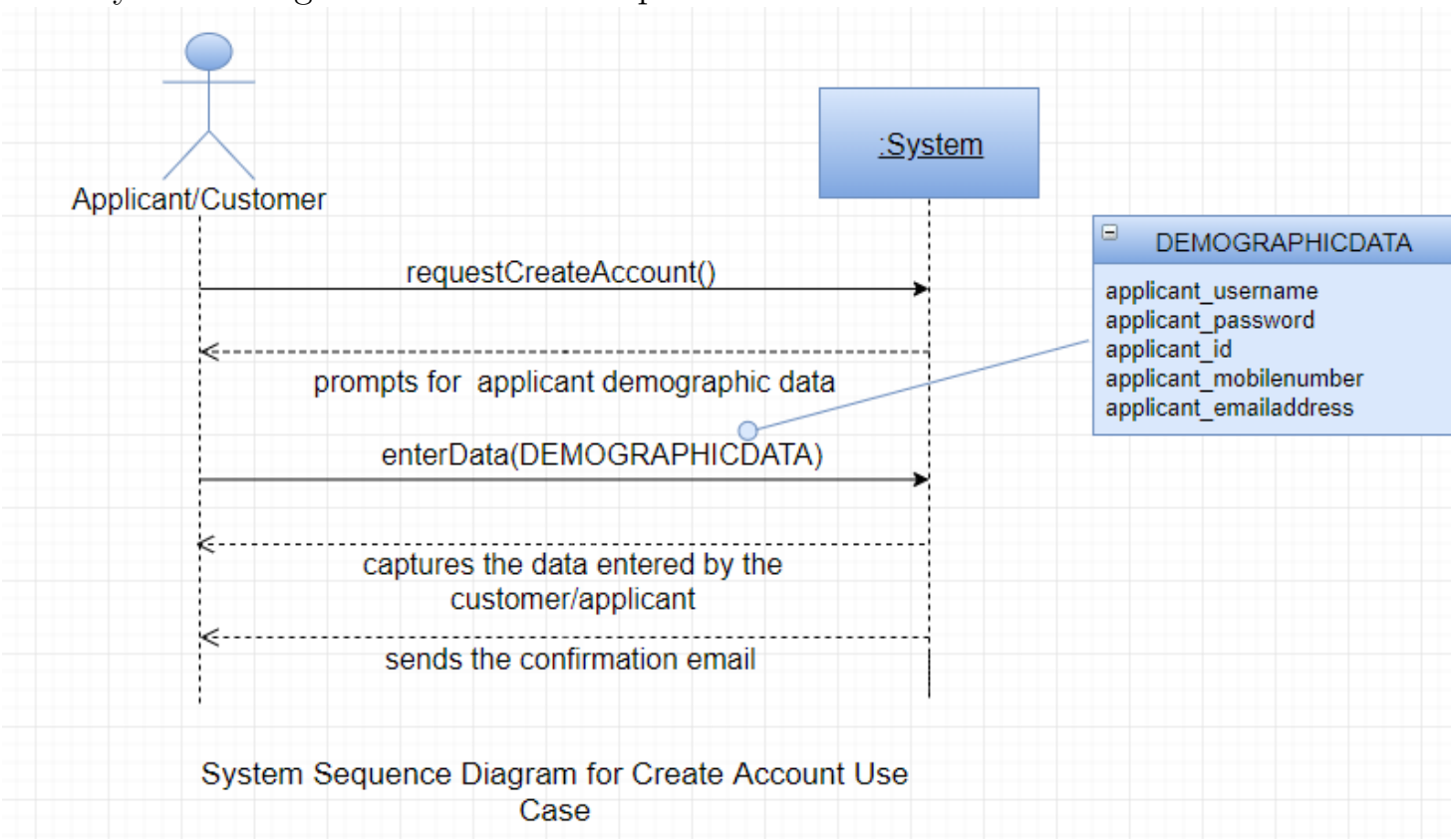
should be able to trace track the order in real time.The user should also be able to choose which method of payment they will use between cash or paypal lastly the customer should be able to cancel the order.

1.4 Scope, keywords and proposed architecture

The purpose of this analysis is to demonstrate the extent to which high-level systems concept and UML notation can be used to describe the functionality of this system. This study lays out a framework for a new system to be developed.

Proposed Architecture

A System Sequence Diagram presents sequences for specific use cases and describe interactions between the user and the system in terms of an exchange of messages over time. It shows the details of events that are generated by actors from outside the The system and gives detail on how operation are carried out.



System Sequence Diagram for Create Account Use Case

Keywords : Customer, manager, administrator, data dictinary and software require-

ments specification

2 System's features

Register / sign in-

Yes we have the sign in or register feature. Email address , password and username are needed for registering. When it comes to registering , the customer must create a password of 6 character minimum but 9 characters maximum , the password must contain at least one Upper case , one low case character , one symbol and one number and also the username should be a minimum of four characters but maximum of 10 characters but the email address is going to be used as the primary key for all the users. When signing in , only the username and password would be needed. The delivery man is going to be added form the admin panel.

Profile :

Both the customer and delivery man are going to have profiles.

Menu :

The customer can view the all the menus and pick anything that they want from the Menu , The sum is going to be added together when they done picking.

Pickup :

The customer will have to be specify the drop off location then The delivery man is allowed to view the pickup location of the customer.

Request ride

The customer has to enter the destination where he/ she needs the drip off to be at .The Delivery man can either accept or reject the request ride depending on how far are they from the pickup location .The Delivery man must come to the customer.

Push Notifications

Both the customer and the delivery man are going to push notifications to each other , for example the delivery man can notify the customer when he has arrived at the drop location and The customer also notify the delivery man to cinfirm if he has arrived at the right location.

Payment

The customer can either choose to pay cash or digital .If the cash option is chosen , the delivery man will accept the cash where both customer and delivery man will sign that the payment went through by using a payment book. If digital payment is chosen , then the delivery man can withdraw the amount to his bank account.

Edit Profile

The customer can edit his/her profile anytime .For the delivery man , the editions of his profile is going to be done through the admin panel only.

Cancel Ride

No cancellation of the ride is allowed.

Logout Both customer and delivery man clog out with just one tap

3 Overall Description

3.1 Responsibility of each student in your group

1. Sibusiso Mgidi - Front End and Back End
2. Culu Muzikawufani - Front End
3. Siala Mbofholowo - Back End
4. Ndivho Mamathuba - Back End

3.2 Back End Tasks

The system runs a back-end service which manages all the essential databases, e.g., available dishes, customers and customer orders, stocks of ingredients for the dishes, employees part-timers and full-timers, managers, suppliers of stocks, etc.

3.3 Front End Tasks

The front-The front-end services feature interfaces for interacting with the mend developer is responsible for implementing visual elements that users see and interact with in a software application.

4 Identify actors, use cases and constrains

- Customer

  This is the principle customer who will ordeer food and make payment.

- Restaurant Manager

  This actor will hold the right to change the menu and enter the system to make any changes.

- System Administrator

  This actor is responsible for

Customer Use Case

4.1 Customer Registration

- Username.
- Contact Details
- Email address

- Phone numbers
- Password

4.2 Customer Possible Constrains

The password must contain an uppercase letter and be a minimum of 8 characters

User logins

- Username
- Password

4.3 Ordering use case

- Navigate the restaurant.
- Select an item from the menu.
- Add an item to their current order.
- Review their current order
- Remove an item/remove all items from their current order.
- Provide payment details.
- Receive confirmation in the form of an order number.
- View order placed.
- Track the order placed in real time.

4.4 The restaurant manager interacts with the system to manage:

- Stock Inventory
- Orders
- Customer database
- Track delivery
- Accounting/Finacial Administration
- Duties, off-days, leaves, etc.
- Generation of reports- Analytics

4.5 System Administrator responsibilities:

- Setting up databases
- Stopping/restarting system services
- General system maintanance
- Managing users accounts
- Performing backups
- Upgrading software

5 Data Dictionary

5.1 Customer Data Dictionary

Scope : This table contains demographic data of the applicant/customer. The table stores the attributes of the objects belonging to classes named CUSTOMER.

Attribute Listing :

customer id:

Description : Customer unique identification number generated by the system on an incremental basis

Type : 5 digit integer

Format : *****

Note : This is the primary key, non-numeric values

customer username:

Description : Customer username name

Type : 30 string character

Format :N/A

Note : Contains non-numeric and special characters. No numeric values

customer email address:

Description : Customer electronic mail address.

Type : 30 string character.

Format :Variable Character.

Note : The email will be verified online.

customer password:

Description : This is the customer password.

Type : 30 combination of strings and numerics.

Format :Variable Character.

Note : Take the combination of the strings, numerics and special characters

customer phone number:

Description : This is the customer phone number.

Type : 10 digit integer.

Format : Numerics

Note : Take the combination of the strings, numerics and special characters

5.2 Restaurant Manager Data Dictionary

Scope : This table contains the restaurant manager username, password and unique id. The table stores the attributes of the objects belonging to classes named MANAGER.

Attribute Listing :

manager username:

Description : Manager first name

Type : 30 string character

Format :N/A

Note : Contains non-numeric and special characters. No numeric values

manager password:

Description : This is the manager password.

Type : 30 combination of strings and numerics.

Format :Variable Character.

Note : Take the combination of the strings, numerics and special characters

manager id:

Description : Manager unique identification number generated by the system on an incremental basis

Type : 5 digit integer

Format : *****

Note : This is the primary key, non-numeric values

5.3 Systems Addministrator Data Dictionary

Scope : This table contains the system's administrator username, password and unique id. The table stores the attributes of the objects belonging to classes named SYSTEM ADMINISTRATOR.

Attribute Listing :

administrator username:

Description : administrator first name

Type : 30 string character

Format :N/A

Note : Contains non-numeric and special characters. No numeric values

administratdor password:

Description : This is the manager password.

Type : 30 combination of strings and numerics.

Format :Variable Character.

Note : Take the combination of the strings, numerics and special characters

administrator id:

Description : Administrator unique identification number generated by the system on an incremental basis

Type : 5 digit integer

Format : *****

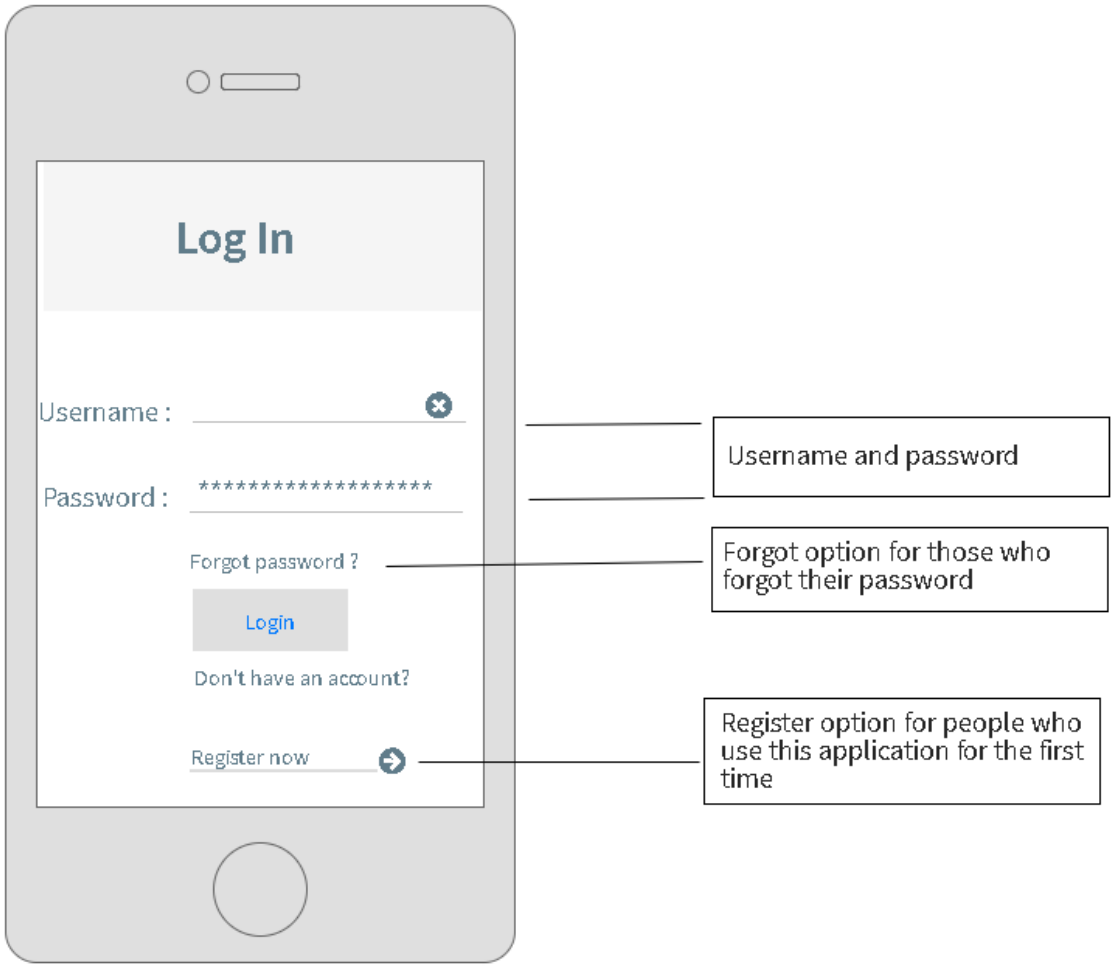
Note : This is the primary key, non-numeric values

6 Prototyping

Prototyping refers to an initial stage of a software release in which development evolution and product fixes many occur before a bigger release is initiated.

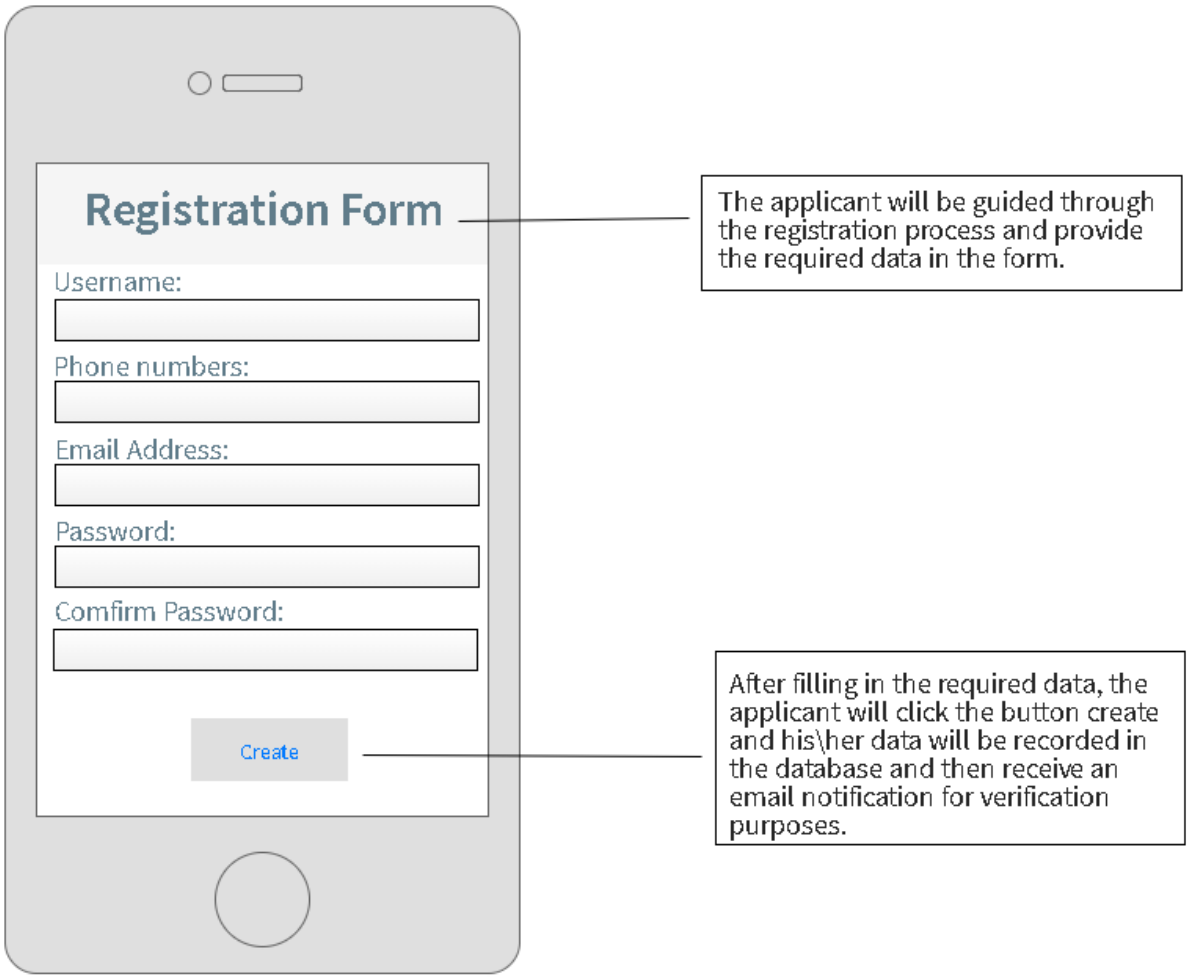
Page 1 - Log in

This interface clearly reminds users that they need to enter their user name and password to log in to this application. In addition, under the user name and password, there are forgot password options for those who have forgotten the password. For those who use this application for the first time, they can register to use the application by clicking the "Register" option at the bottom of dthe page.



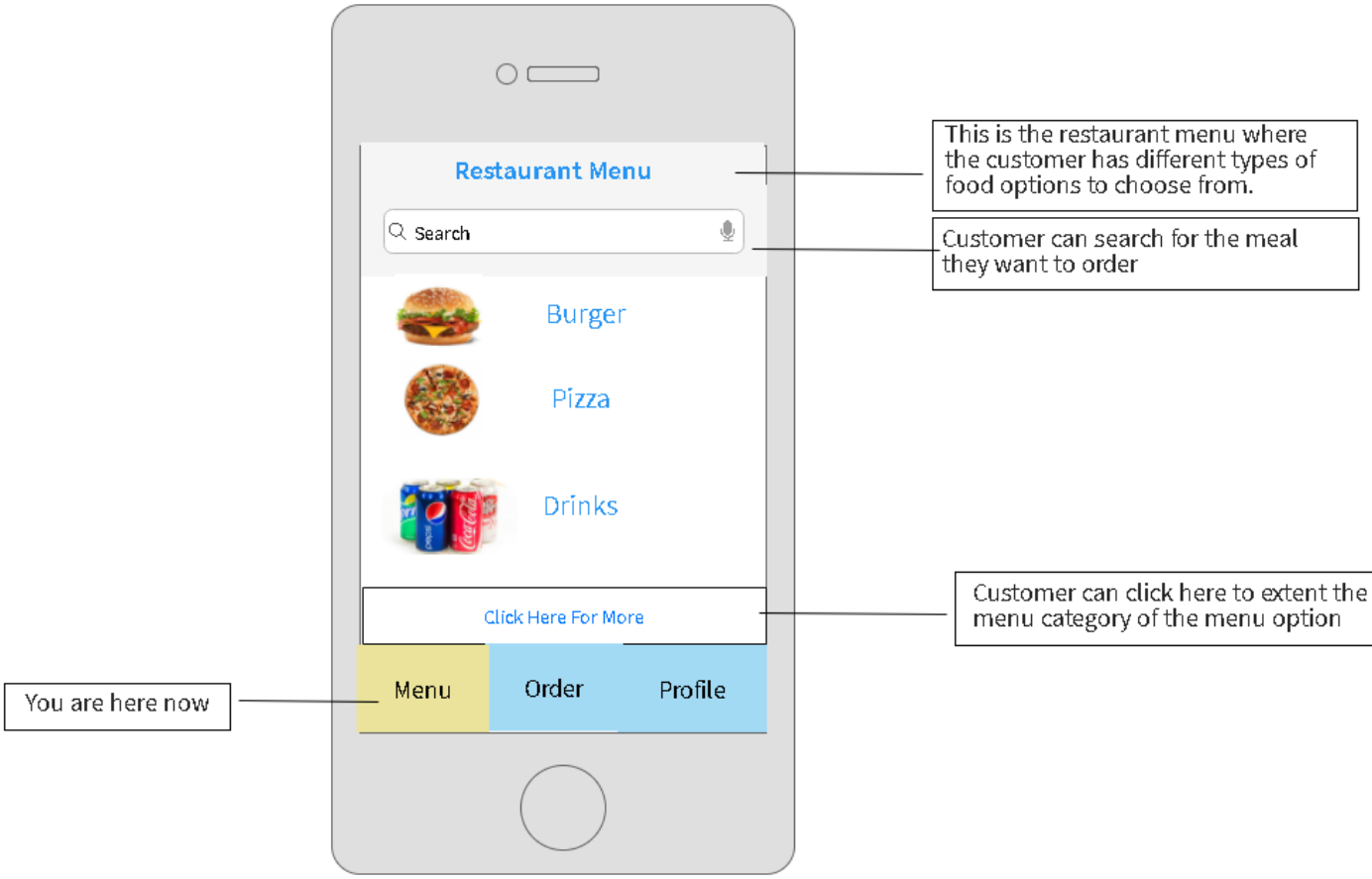
Page 2 - Registration Form

This interface clearly allows sthe user to enter their demographic data namely username, phone numbers, email address, password and confirm it. After the user has clicked the button create he/she will receive and email to verify the authenticity of the email.



Page 2 - Restaurant Menu Form

This is the homepage of the application, which shows activities and advertisements, automatically recommend restaurants and search icon and so on.


Restaurant Menu
Search
Burger
Pizza
Drinks
Click Here For More
Menu
Order
Profile
This is the restaurant menu where the customer has different types of food options to choose from.
Customer can search for the meal they want to order
Customer can click here to extent the menu category of the menu option
You are here now