

Project Name:

Discount Shuttle

Team Member Names:

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Description:

Generally speaking, Discount Shuttle is designed to collect discount information for customer they are interested in, and to build a platform for seller to attract customer. Our app is designed based on two different groups of user, the seller part and the customer part.

Seller can login to our app as a seller and manage their account, edit their introduction information including uploading a voice introduction, uploading the location of the shop to our app, etc. . the most important part for seller is to post and manage discount products information, those information will be shared to customer, seller can also edit posts if something need to be updated or delete.

Customer can login as a guest which do not need to have an account or as a real customer if they already signed in. After login, customer can choose the product's type they want to buy, for example, food, clothes, etc.. then according the type they choose and the location they choose(including their current location or their interested location), customer will be directed to the page contains all of their interested and nearest discount information. Next customer will look through those classified information and click those link they are interested in, and they will be directed to the page which contains the shop information and details information of the selected discount products. Finally customer can also find the location of the shop through our app.

User Stories:

1.Customer type:

Jerry is a foreign student of CMU who lives in squirrel hill on Murray Ave. He always goes to giant eagle to buy products like meat, fruit, and vegetable and daily supplies. However , as a student without any income, goods in Giant Eagle seems a little bit expensive to Jerry.

One day when Jerry comes back from school he decides to buy some fruits on the way home, but he almost runs out of money. Then he takes his android

phone out and open the “Discount Shuttle” app, by login as a customer, Jerry then search the type fruits by using his current location, and the app returns lots of information about discount of nearly all kinds of fruits such as strawberry, blueberry, apple and so on related to Jerry’s current location. Finally Jerry finds a supermarket highly rated by other customers named ALDI, and the price of fruits there are nearly half price compared to those in Giant Eagle.

This supermarket is on 5631 Baum Blvd indicated by our app which is also not far from Jerry’s living place. In the end, Jerry decides to go to that shop and have a great time shopping and buying discount fruits in ALDI. Jerry saved a lot of money and also get what he wants by using “Discount shuttle”. Considering the goods with discount also has good quality, Jerry rates a 4.5 points out of 5 to ALDI which will be seen by other customers, and the final total point of ALDI will also be updated when our app server receives Jerry’s comment.

2.Seller type:

Mr. Bryant is a manager of a supermarket located at 5631 Baum Blvd , Pittsburgh named ALDI, although the products of the market has high commercial quality and low price compared to other supermarkets, his supermarket still miss this season’s sales targets.

In order to increase the sales of next season, Mr. Bryant sign an account in our app “Discount Shuttle” as a seller ,and then login to the app and post lots of discount information of the items in their supermarket, e.g. bread like croissant, meat like chicken breast, fruit like watermelon, etc..most of them are the best-selling items.

After doing so, customers could get those information from the app when searching related items. The results turns out to be good for Mr.Bryant cause lots of customers get those posted discount information and goes to ALDI to buy items in order to save daily outcome. And Mr.Bryant is quite satisfied with the sales of next season after using “Discount Shuttle”.

List of used features:

1.GPS: On sellers’ side, GPS is used to get the seller’s location and store those location information in our app. On customers’ side, customer can not only get the specific location of interested shop , but also search the nearest shop and discount information according to their current location, furthermore, customer can also input a location they want to go shopping and the searching results will contains all the shop and discount products information in that specific business area.

2.Microphone: Seller can upload voice introduction about their shop, those voice message can be heard by customer if they're interested in the shop and its' products.

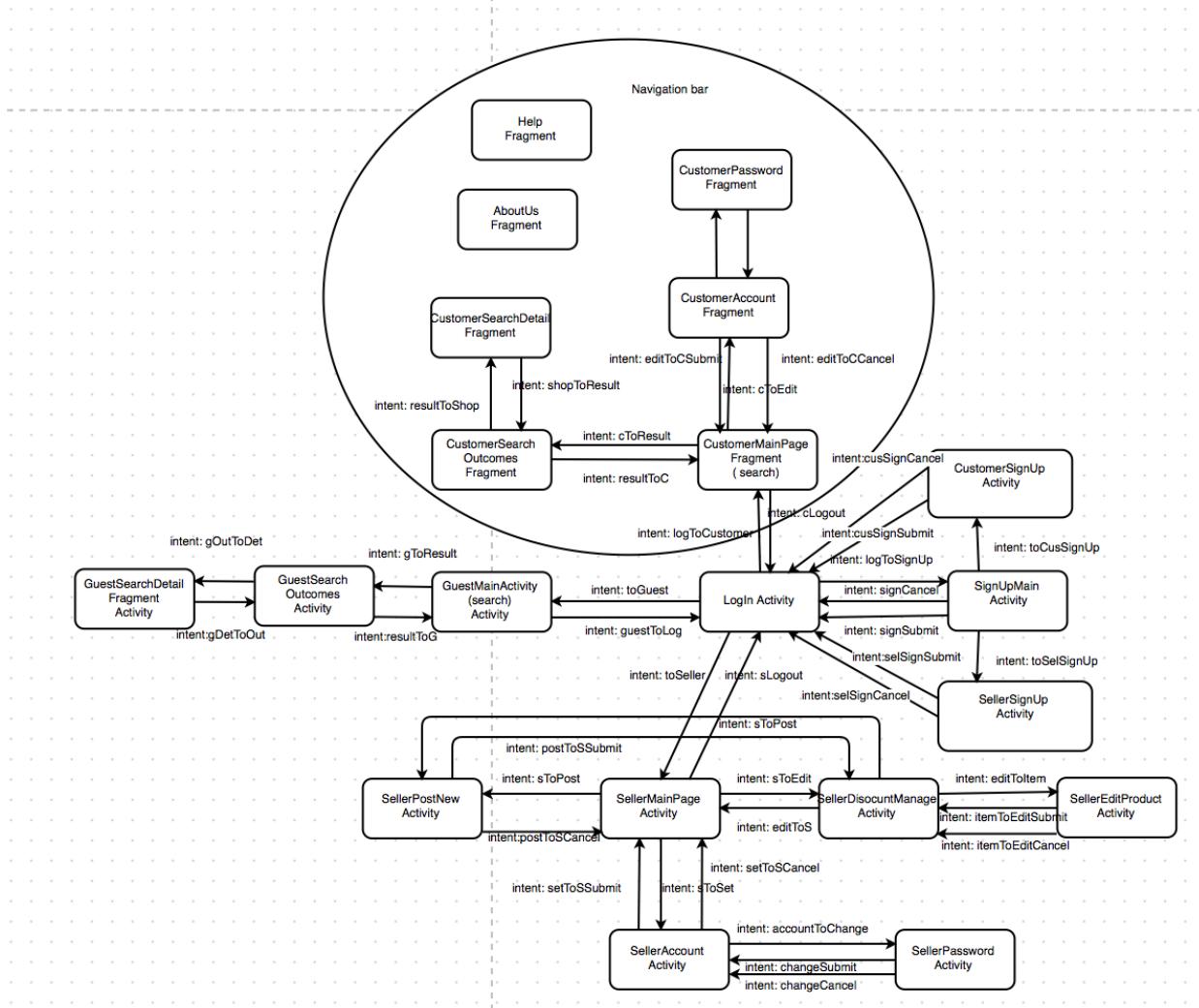
3.Camera: Customers can upload a image by using the camera to take a picture of themselves, this will improve the reality of a customer. And on the other hand. sellers can take pictures of their products or shop and then upload those images in order to make their discount information more authentic and attractive.

4.Gestures: Customer can drag the navigation bar out by swiping right on the screen.

5.MySQL database: MySQL is used to store data on the server side, providing information of customers, sellers and products.

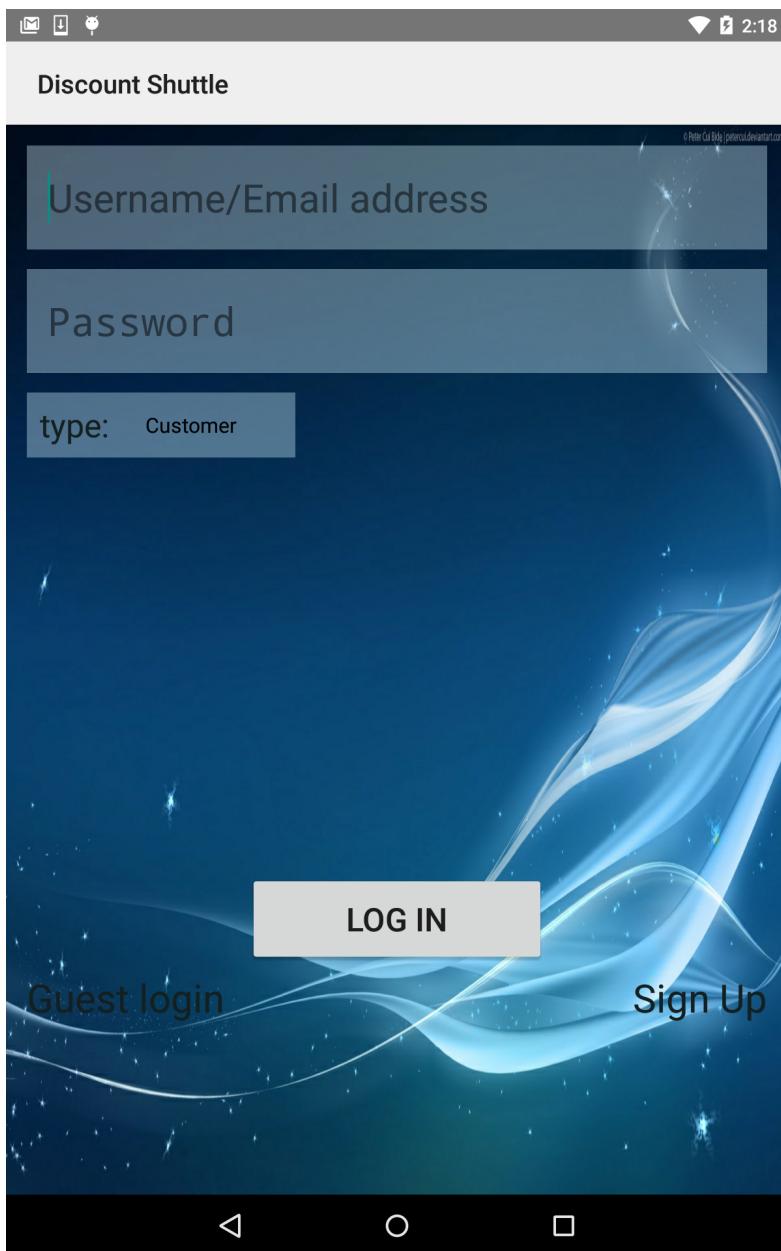
6.Web Service: We applied for an amazon server web service to store our image and audio data. Customer can download those data of a shop or their own icon from amazon server given the url, they can change their icon by submit a new one. Seller can get image and audio data of their own shop or products from amazon and choose to change or not.

Page flow:

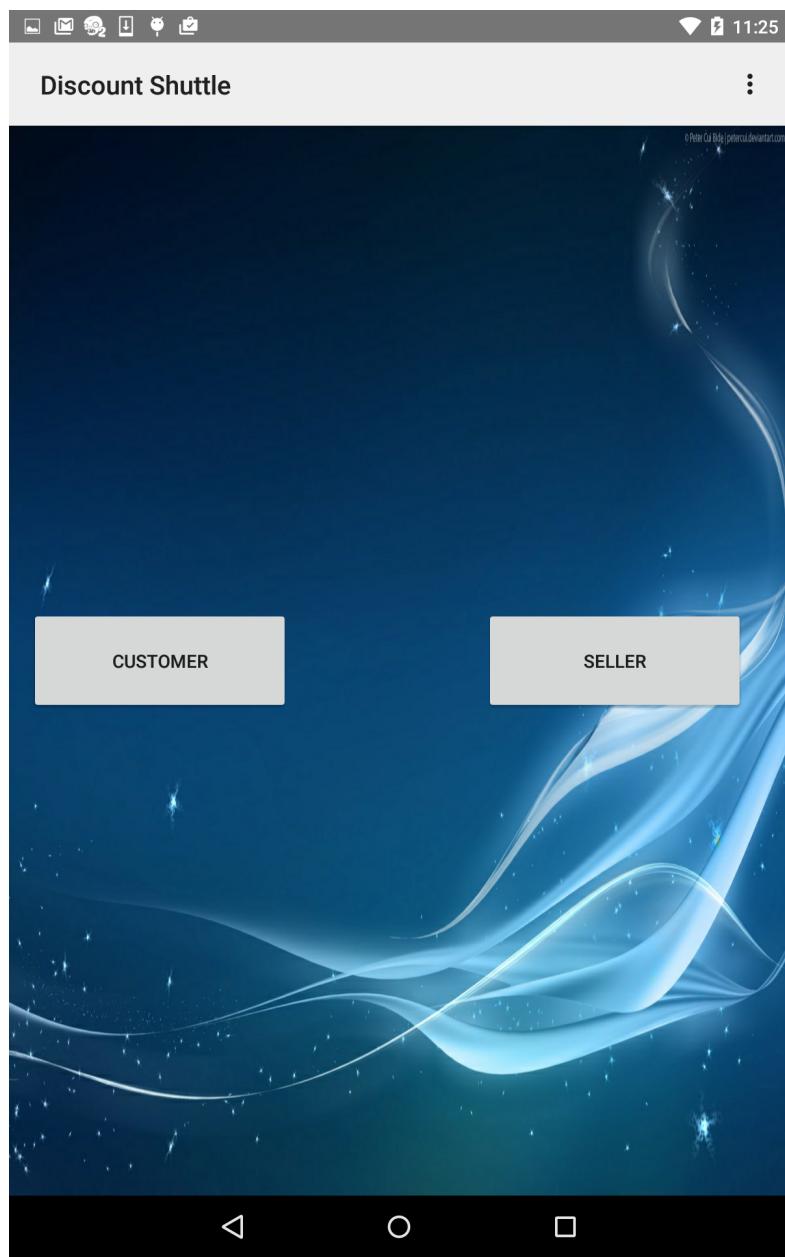


Wire frames:

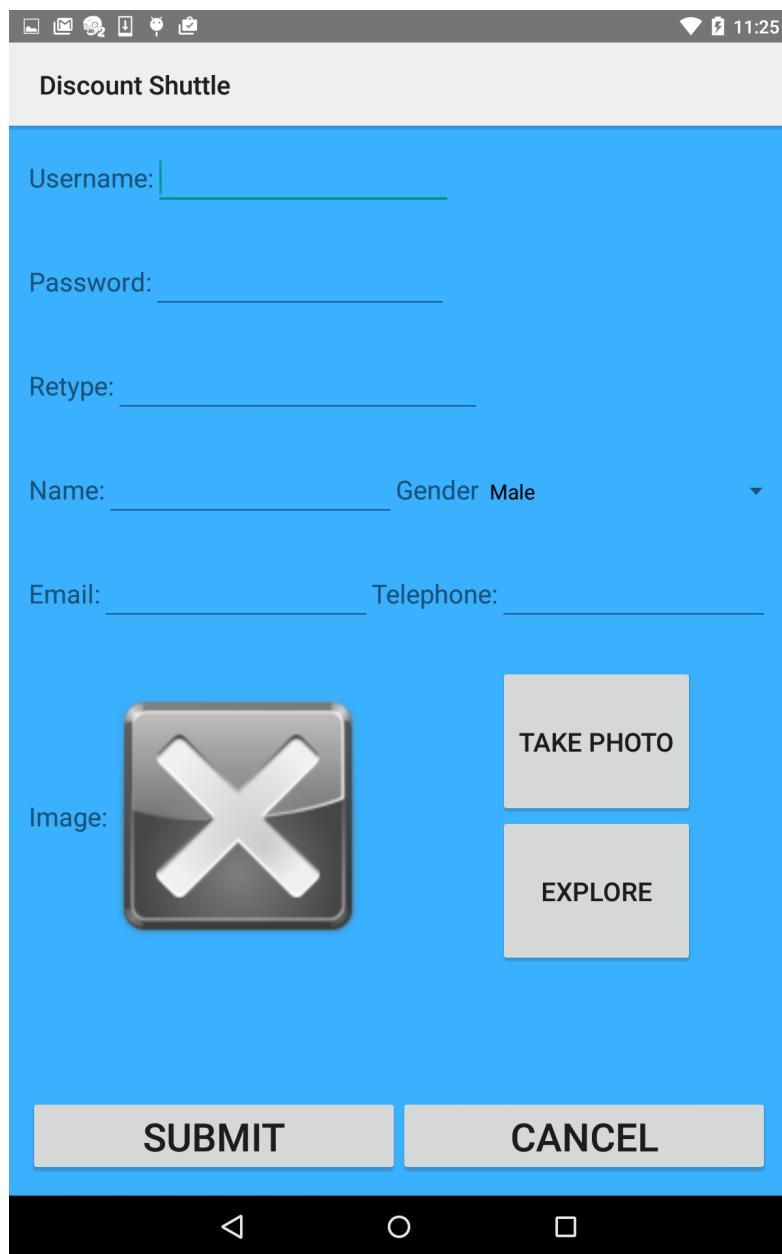
1.Main page:



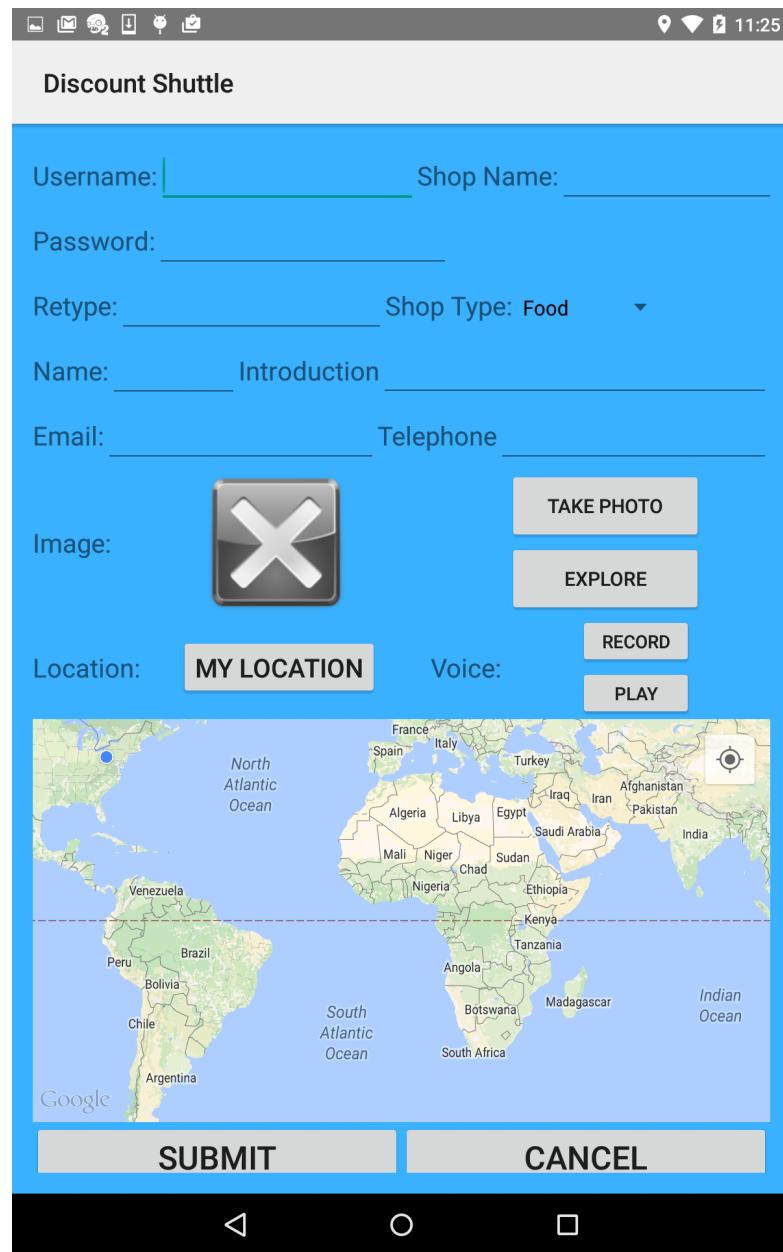
2.Main sign up page:



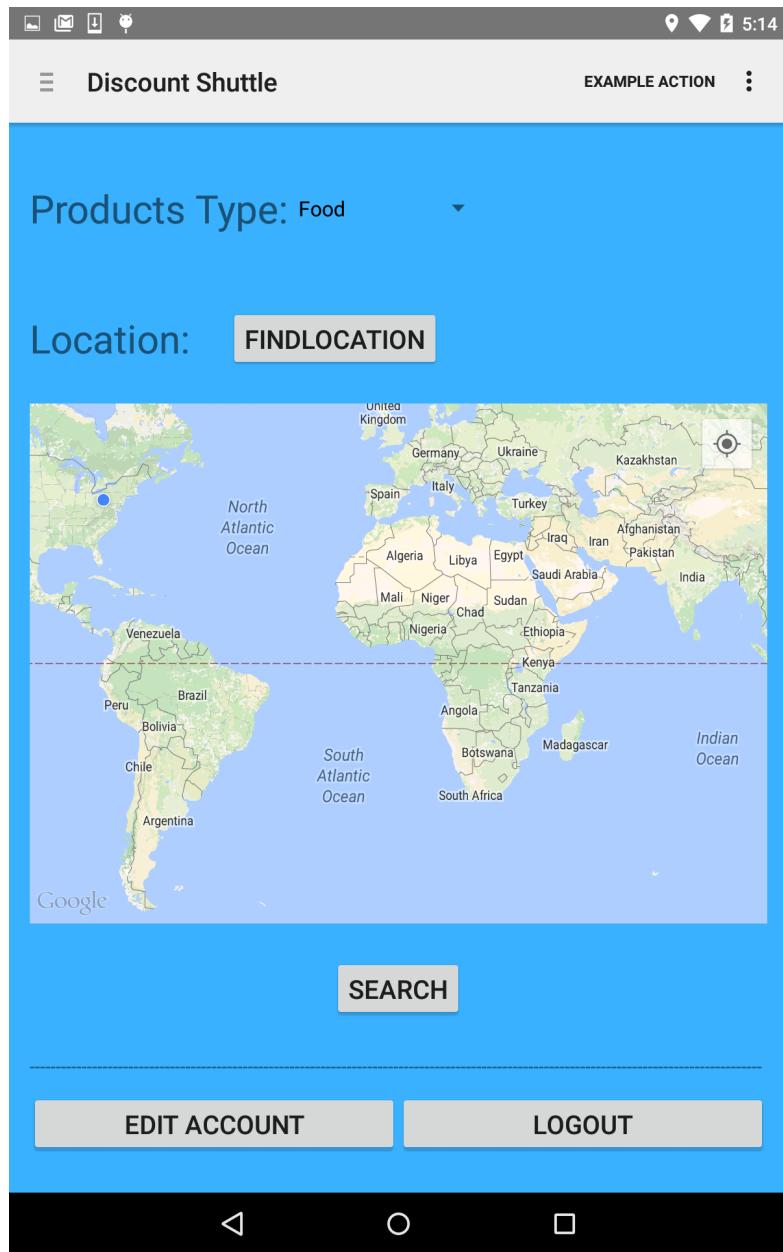
3.Customer sign up page:



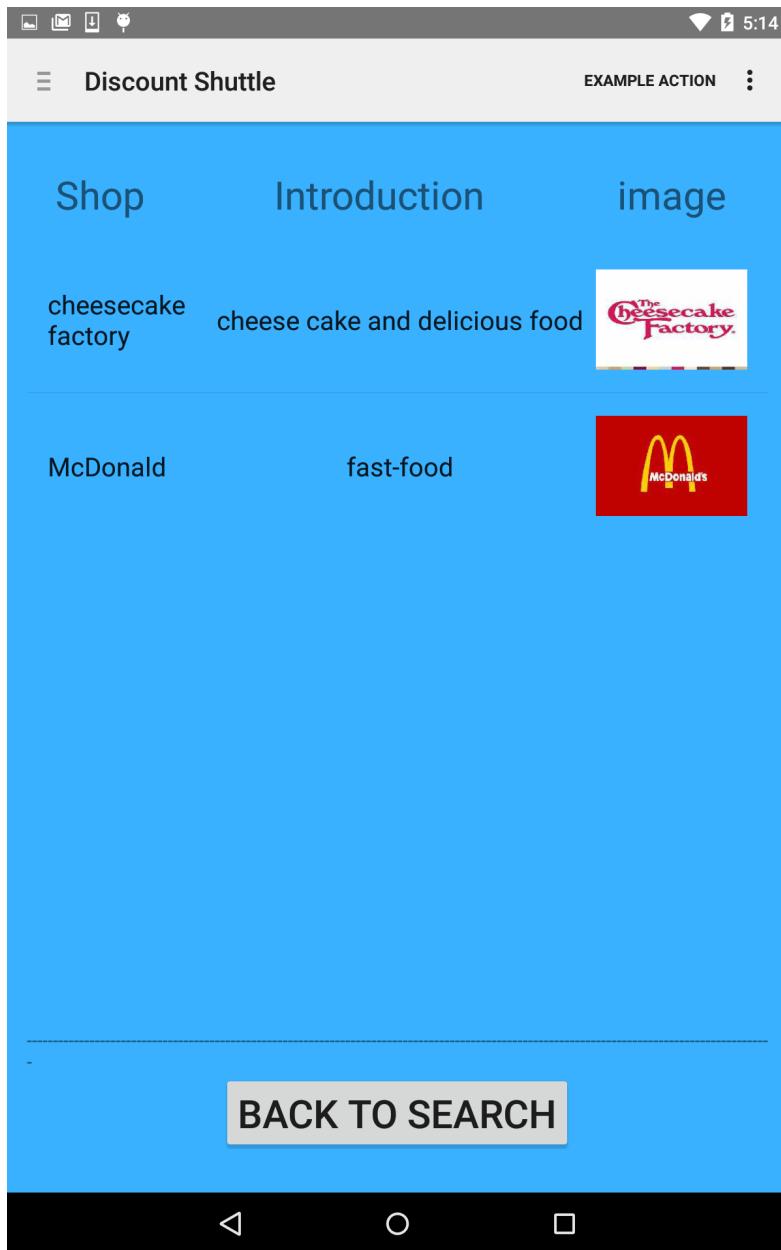
4.Seller sign up page:



5.Customer main page:



6.Customer search outcomes page:(guest)



7.Customer search detail page: (guest)

The screenshot shows a mobile application interface for "Discount Shuttle". At the top, there are icons for file operations (Share, Copy, Paste, Delete) and a battery level indicator. The title "Discount Shuttle" is displayed, along with "EXAMPLE ACTION" and a three-dot menu icon.

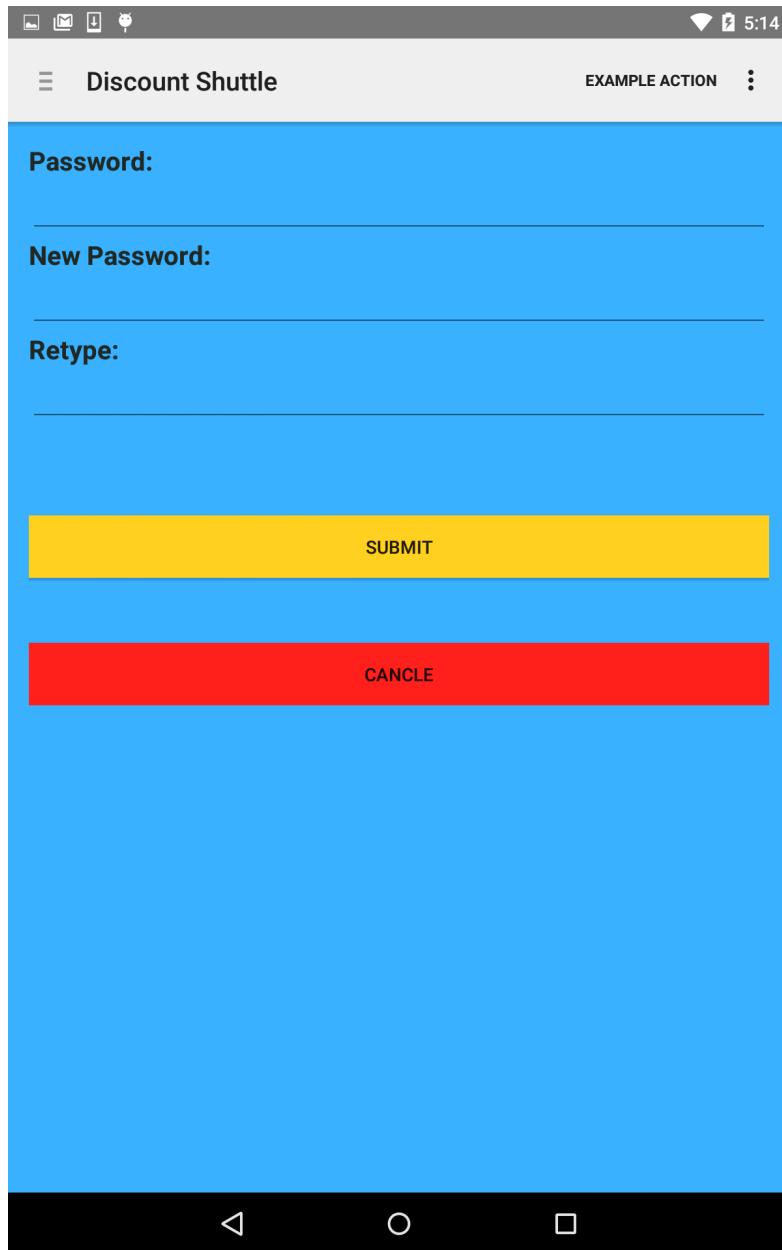
The main content area is titled "McDonald" and displays two menu items:

Item	Price	Discount	image
Fish burger combo	11.0	9%	
Double cheeseburger combo	12.0	16%	

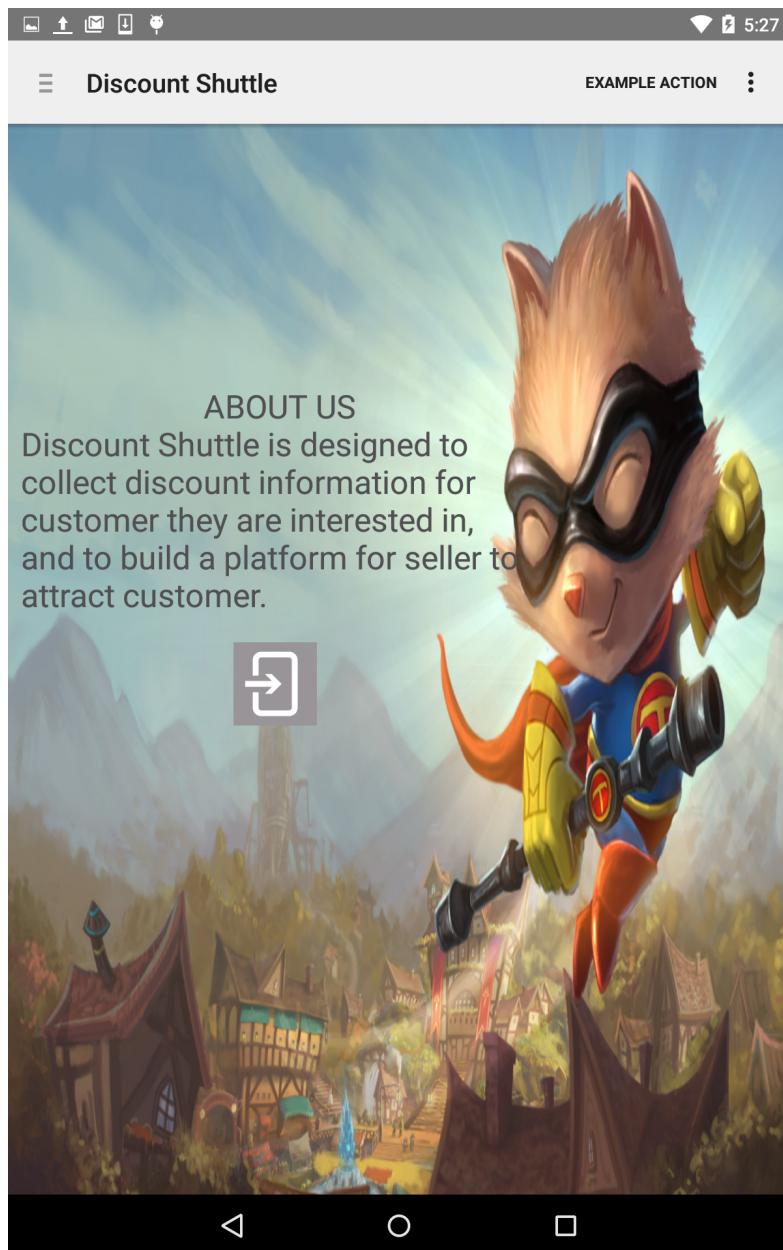
Below the menu, there is a large world map showing continents and country names. A dashed line highlights a specific region across the Atlantic Ocean, connecting North America to Africa and Europe. The map includes labels for the North Atlantic Ocean, South Atlantic Ocean, and Indian Ocean.

At the bottom of the screen, there are two buttons: "WHERE IS IT?" and "BACK TO SEARCH". The bottom navigation bar features standard Android icons for back, home, and recent apps.

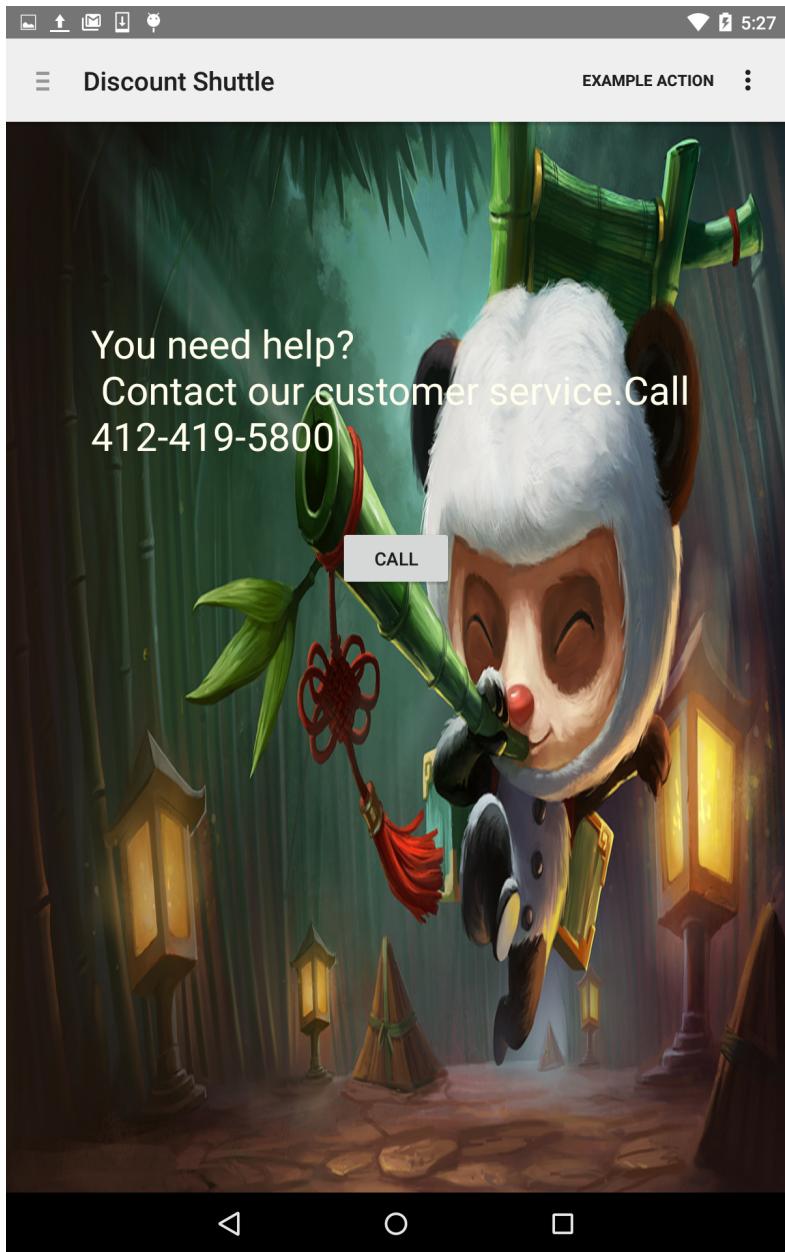
8.Customer change password page: (seller)



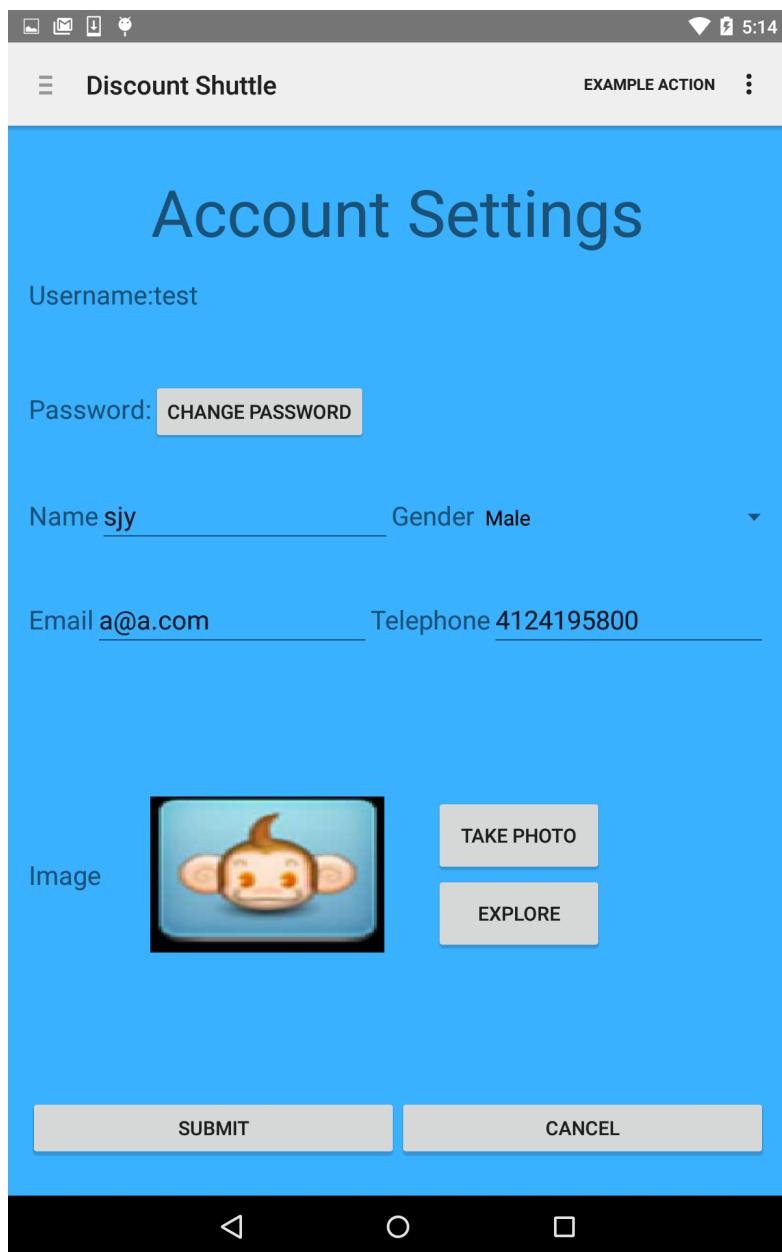
9.Customer About us page:



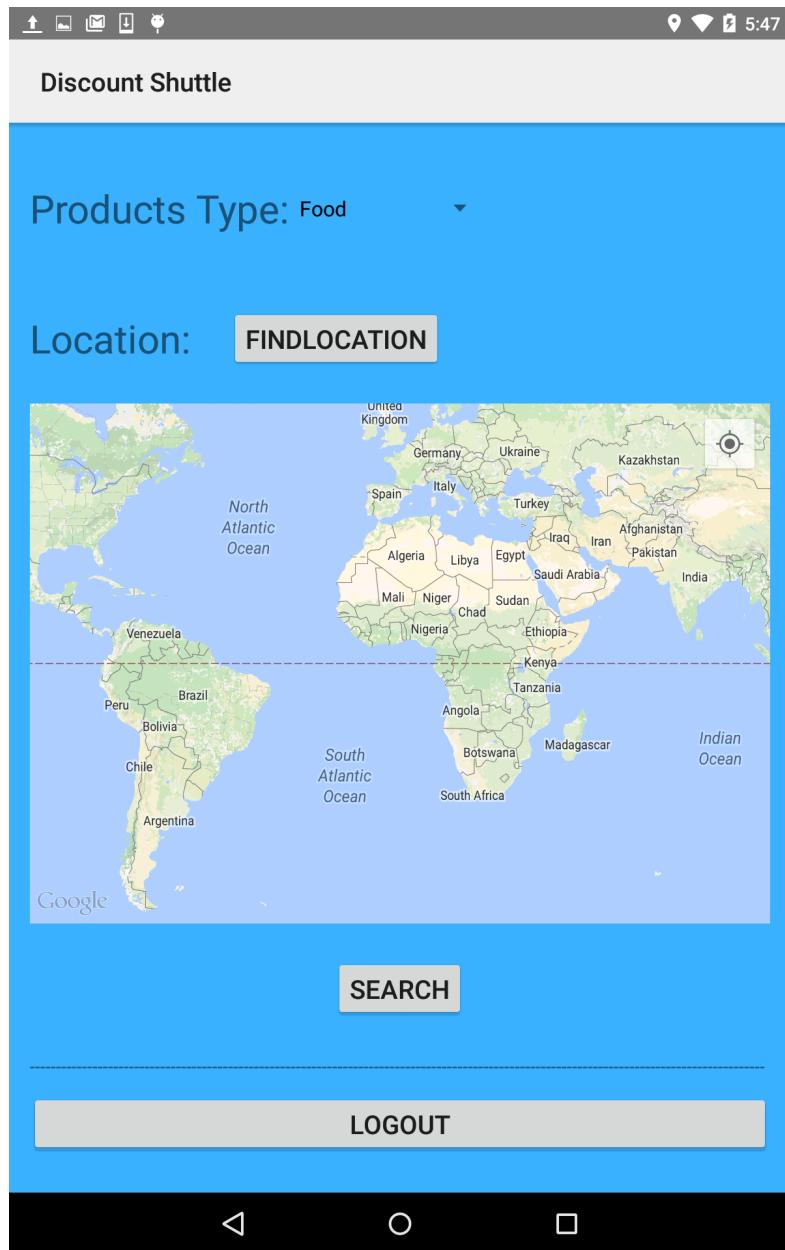
10.Customer help page:



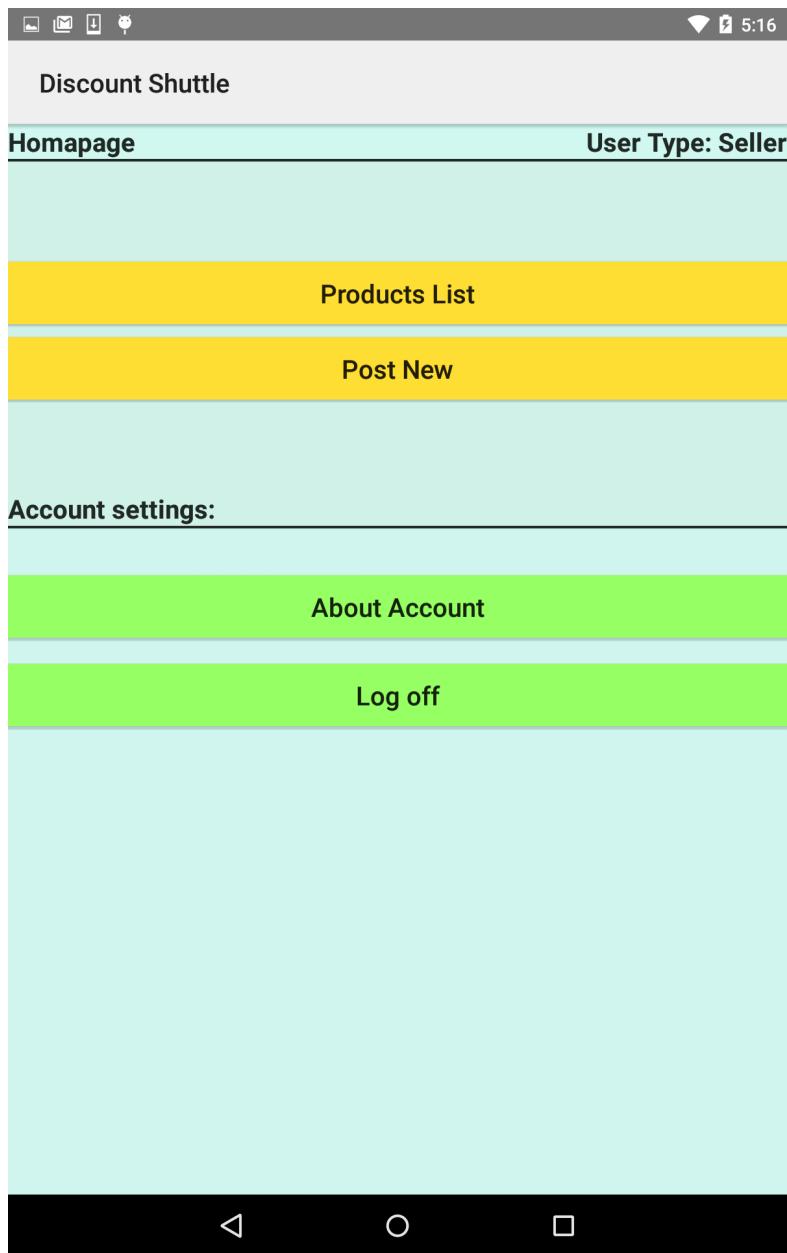
11.Customer Account page:



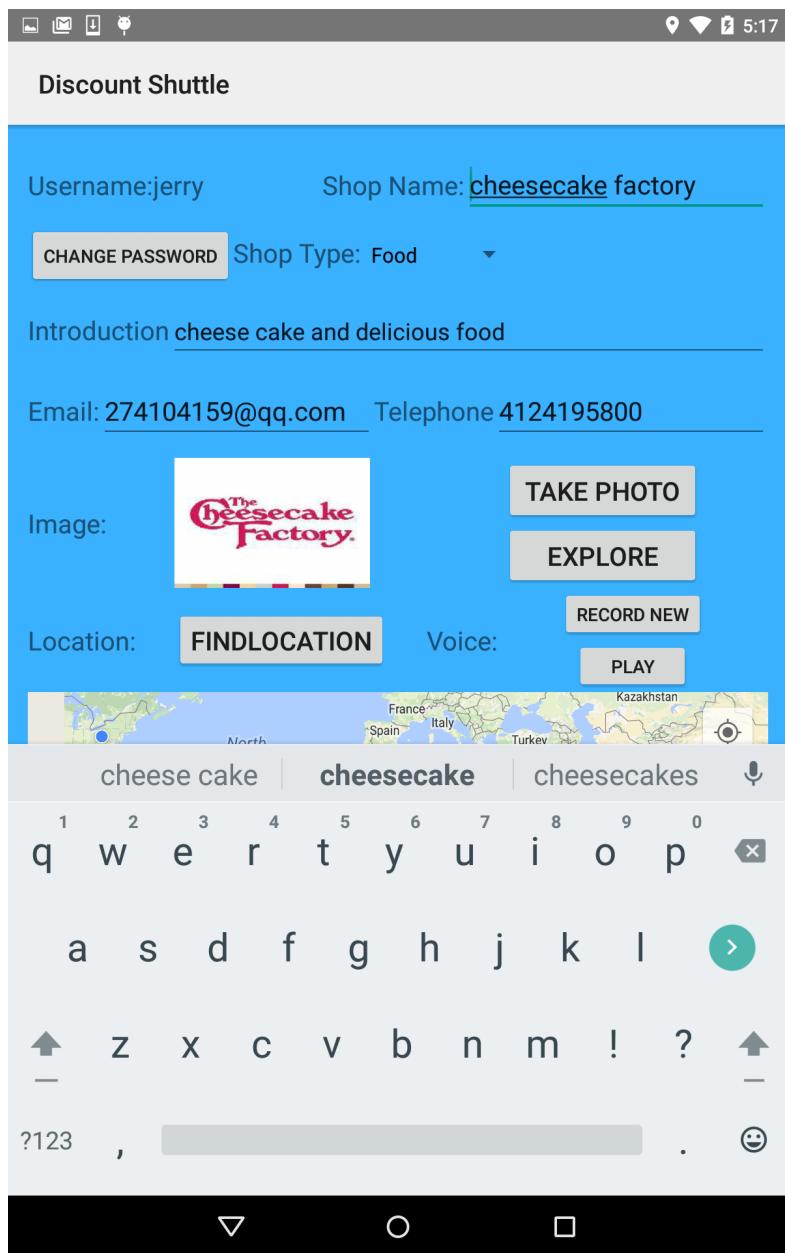
12.Guest Main page:



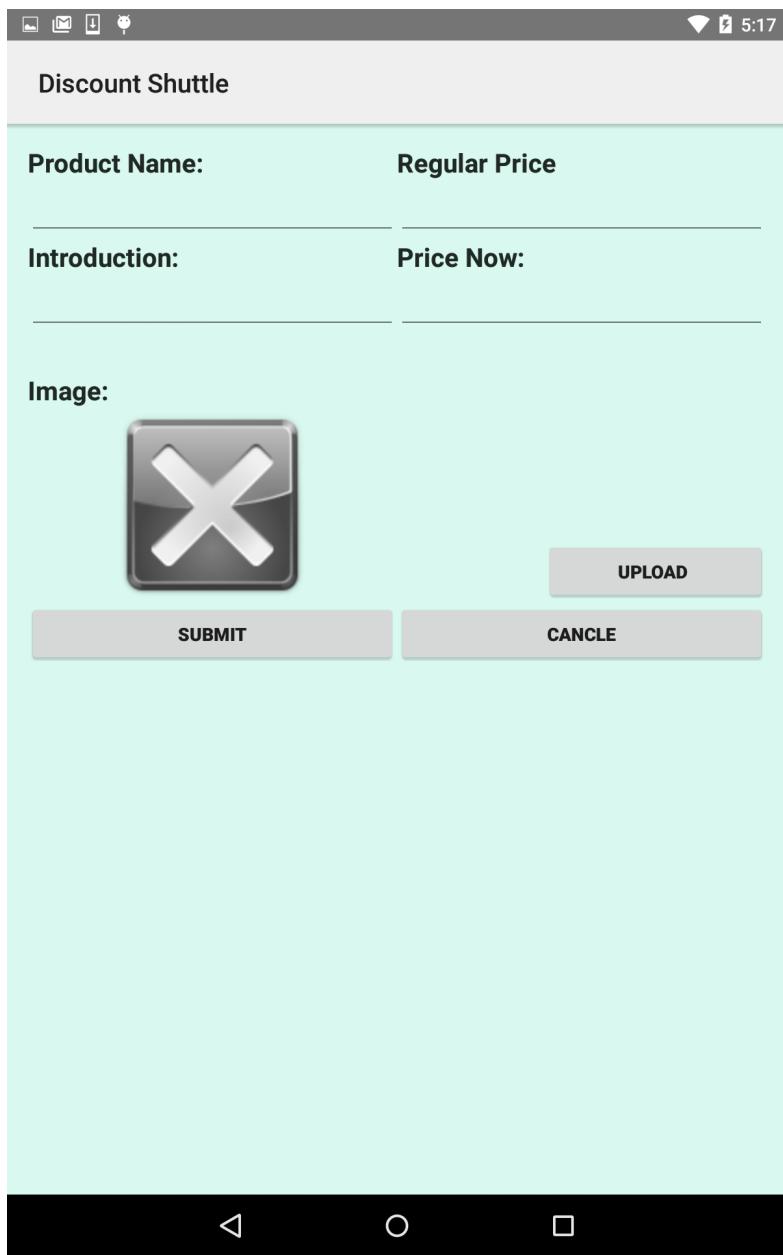
13.Seller Main page:



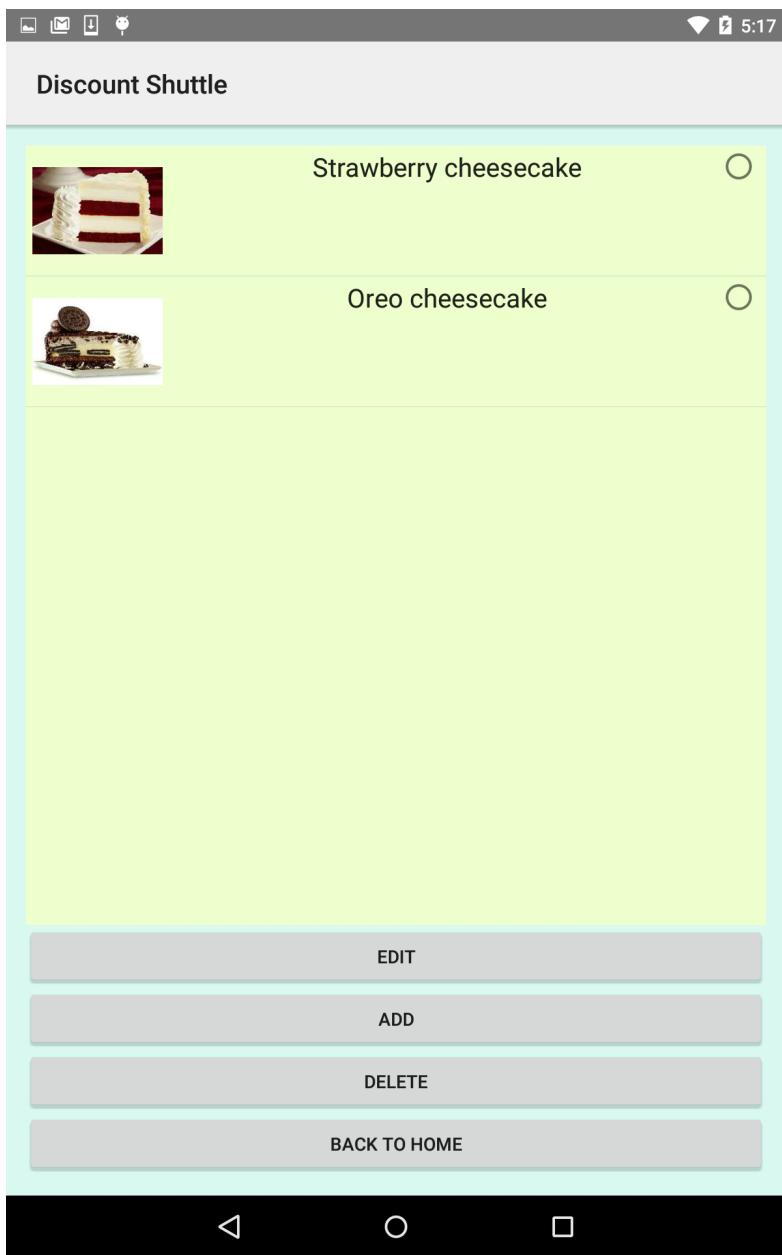
14.Seller Account page:



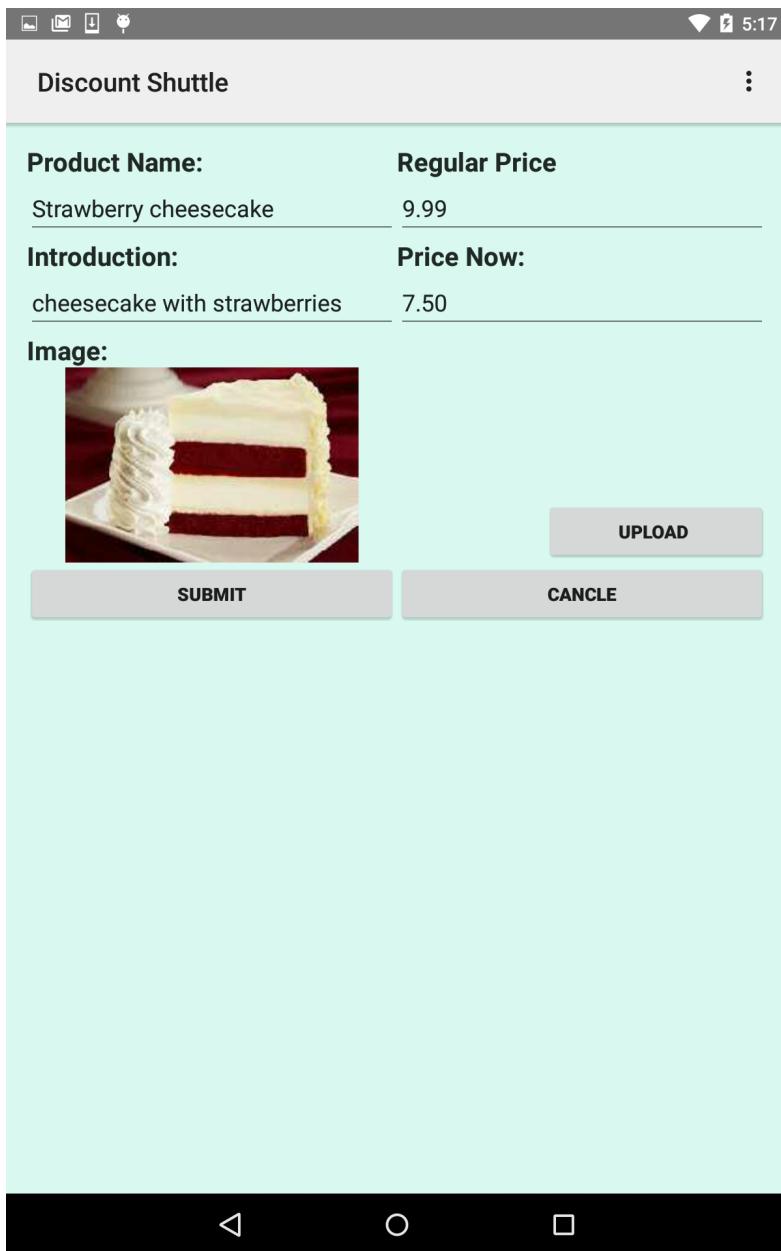
15.Seller Post new page:



16.Seller Discount Manage page:



17.Seller Discount Manage page:



Use cases:

1.Use case overview

Use Case ID	Use Case Name	Priority
USER_REG	User registration	low
CRT_ACC	Creating account	low
AUTH_USER	User Authentication	high
CUS_WEL	Customer welcome	high
VEN_WEL	Vendor welcome	high
GUE_WEL	Guest welcome	high
CUS_RES	Customer search results	high
PRO_DET	Product details	high
SHW_PRO	Show product	high
EDI_PRO	Edit product	high
PST_PRO	Post product	high
SEL_ACC	Seller edit account	low
SEL_PSD	Seller change password	low
CUS_ACC	Customer edit account	low
CUS_PAS	Customer change password	low
CUS_US	Customer about us	low
CUS_HELP	Customer help	low

2.Use case details

Use Case ID: USER_REG		Use Case Name: User registration
Primary Actor(s):	Unregistered users	
Secondary Actor(s)	N/A	
Description:	User register a new account	
Preconditions:	Login page is displayed and user needs a new account	
Normal Flow of Events:	0-1. User selects a user type and clicks the button	
Postconditions:	User will be directed to a sign up page	
Frequency of Use:	low	
Alternative Flows:	N/A	
Exceptions:	N/A	
Assumptions:	Discount Shuttle system is in run and network is fine	
Issues:	TBD	
Associated Requirements:	TBD	

Use Case ID: CRT_ACC		Use Case Name: Creating account
Primary Actor(s):	Unregistered users	
Secondary Actor(s)	N/A	
Description:	User creates the account that has been specified as customer or vendor	
Preconditions:	User has clicks sign up button	
Normal Flow of Events:	0-2. user fills all required fields such as name, password, email, etc. and all alternative fields such as profile image, phone number vocal self-description 0-3. user clicks on submit	
Postconditions:	User shall be directed to the login page	
Frequency of Use:	low	
Alternative Flows:	TBD	
Exceptions:	If required fields are not been fulfilled, show error dialog.	
Assumptions:	User inputs legal information	
Issues:	TBD	

Associated Requirements:	TBD
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Use Case ID: AUTH_USER		Use Case Name: User Authentication
Primary Actor(s):	All application users, potentially including vendors, customers and guests(unregistered users)	
Secondary Actor(s)	N/A	
Description:	Request username and password to login the Discount Shuttle (DS) system	
Preconditions:	Login page is displayed and available for users to input	
Normal Flow of Events:	<ol style="list-style-type: none"> 1. User selects user type, inputs user name and password 2. User clicks on login 	
Postconditions:	The main DS system appears	
Frequency of Use:	High	
Alternative Flows:	If a user has not yet registered an account before, he/she can click sign up button to register an account or simply login as a low priority user(guest)	
Exceptions:	Wrong user ID or password will show an error message to users, indicating an invalid user name or password.	
Assumptions:	DS system is in run and network is fine	
Issues:	TBD	
Associated Requirements:	TBD	

Use Case ID: CUS_WEL		Use Case Name: Customer welcome
Primary Actor(s):	customers	
Secondary Actor(s)	N/A	
Description:	Welcome page for customers. I.E the entrance of the main service for customer	
Preconditions:	User logged in as a customer	

Normal Flow of Events:	3a. Customer selects a preferred product type 4a. Customer choose to inputs a location or leave it blank 5a. Customer clicks on search
Postconditions:	Request been sent correctly
Frequency of Use:	high
Alternative Flows:	Customer can check to use GPS for current location instead of choosing a location manually. Customer can click on exit to quit the application along the period of application service. Customer can click on a button to edit account application along the period of application service.
Exceptions:	N/A
Assumptions:	GPS is available on the device
Issues:	TBD
Associated Requirements:	TBD

Use Case ID: VEN_WEL Use Case Name: Vendor welcome	
Primary Actor(s):	vendors
Secondary Actor(s)	N/A
Description:	Welcome page for vendors. i.e. the entrance of the service for sellers.
Preconditions:	Users logged in as a vendor
Normal Flow of Events:	3b. Vendor can choose either of the service provided in the menu, including edit ads, post new ad.
Postconditions:	Request been sent correctly
Frequency of Use:	high
Alternative Flows:	Vendor can choose to edit account information (shop info) or exit the application.
Exceptions:	N/A
Assumptions:	N/A
Issues:	TBD
Associated Requirements:	TBD

Use Case ID: GUE_WEL		Use Case Name: Guest welcome
Primary Actor(s):		
Secondary Actor(s)	N/A	
Description:	Guest search for products based on location	
Preconditions:	User logged in as a guest	
Normal Flow of Events:	3c. Guest selects a product type 4c. Guest inputs a location or choose current location 5c. Guest clicks on search	
Postconditions:	Requests sent correctly	
Frequency of Use:	high	
Alternative Flows:	Guest cannot have option to edit account	
Exceptions:	N/A	
Assumptions:	GPS is available on the device	
Issues:	TBD	
Associated Requirements:	TBD	

Use Case ID: CUS_RES		Use Case Name: Customer search results
Primary Actor(s):	Customer users	
Secondary Actor(s)	N/A	
Description:	Customer gets list of products information.	
Preconditions:	User logged in as a guest	

Normal Flow of Events:	6a. Application shows a list of shops of relative products with brief shop introduction 7a. Customer selects a shop
Postconditions:	Requests sent correctly
Frequency of Use:	high
Alternative Flows:	Customer may log off or goes back
Exceptions:	Time out
Assumptions:	Products information meets the location
Issues:	TBD
Associated Requirements:	TBD

Use Case ID: PRO_DET Use Case Name: Product details	
Primary Actor(s):	Customer users
Secondary Actor(s)	N/A
Description:	Customer gets detailed information of the selected product.
Preconditions:	Customer chose a product
Normal Flow of Events:	<p>8a. Application shows all products and items of the shop and the supplier's vocal introduction. A map will be provided to find the location of the shop.</p> <p>9a. Customer performs alternative operations, such as find introduction of an interested item, find a way leads to the shop, listen to the vocal introduction of the shop.</p>
Postconditions:	Requests sent correctly
Frequency of Use:	high
Alternative Flows:	Customer may log off or goes back
Exceptions:	Time out
Assumptions:	GPS available
Issues:	TBD
Associated Requirements:	TBD

Use Case ID: SHW_PRO		Use Case Name: Show product
Primary Actor(s):	Seller users	
Secondary Actor(s)	N/A	
Description:	Vendor gets a list of products that he/she has posted	
Preconditions:	Vendor chose to edit previous product information	
Normal Flow of Events:	4b. Application shows a list of previously posted products 5b. Vendor chooses one of them to edit.	
Postconditions:	Requests sent correctly	
Frequency of Use:	high	
Alternative Flows:	Vendor may log off or goes back	
Exceptions:	No item selected	
Assumptions:	N/A	
Issues:	TBD	
Associated Requirements:	TBD	

Use Case ID: EDI_PRO		Use Case Name: Edit product
Primary Actor(s):	Seller users	
Secondary Actor(s)	N/A	
Description:	Vendor updates the information of a previously posted product	
Preconditions:	Vendor chose a product to edit	
Normal Flow of Events:	6b. Application shows detailed information that has been posted for a product 7b. Vendor edits some of the information and click update and submit.	
Postconditions:	Requests sent correctly, then the user will be directed to 5b page	

Frequency of Use:	high
Alternative Flows:	Vendor may log off or goes back
Exceptions:	TBD
Assumptions:	GPS available, voice input device available
Issues:	TBD
Associated Requirements:	TBD

Use Case ID: PST_PRO	Use Case Name: Post product
Primary Actor(s):	Seller users
Secondary Actor(s)	N/A
Description:	Vendor posts the information of a new product
Preconditions:	Vendor chose to post a product
Normal Flow of Events:	<p>8b. Application shows all required fields in a form to fill</p> <p>9b. Vendor fulfils all required information that describes a product.</p> <p>10b. Vendor clicks on submit</p>
Postconditions:	Requests sent correctly, then the user will be directed to 5b page
Frequency of Use:	high
Alternative Flows:	Vendor may log off or goes back
Exceptions:	TBD
Assumptions:	GPS available, voice input device available
Issues:	TBD
Associated Requirements:	TBD

Use Case ID: SEL_ACC		Use Case Name: Seller update account
Primary Actor(s):	Seller users	
Secondary Actor(s)	N/A	
Description:	Vendor update personal information	
Preconditions:	Vendor chose to update account	
Normal Flow of Events:	11b. Application shows all personal information in a form to update 12b. Vendor choose to change or not 13b. Vendor clicks on submit or cancel 14b. Vendor clicks on ChangePassword button	
Postconditions:	Requests sent correctly, then the user will be directed to seller welcome page	
Frequency of Use:	low	
Alternative Flows:	Vendor may goes back	
Exceptions:	TBD	
Assumptions:	GPS available, voice input,Camera device available	
Issues:	TBD	
Associated Requirements:	TBD	

Use Case ID: SEL_PSD		Use Case Name: Seller change password
Primary Actor(s):	Seller users	
Secondary Actor(s)	N/A	
Description:	Seller change password	
Preconditions:	Seller choose to change password	
Normal Flow of Events:	15b. seller input old password 16b. seller input new password. 17b. Vendor clicks on submit	
Postconditions:	Requests sent correctly, then the user will be directed to seller edit account page	
Frequency of Use:	low	
Alternative Flows:	Vendor may goes back	
Exceptions:	TBD	
Assumptions:	Internet connected	
Issues:	TBD	

Associated Requirements:	TBD
Use Case ID: CUS_ACC	Use Case Name: Customer update account
Primary Actor(s):	Customer users
Secondary Actor(s)	N/A
Description:	Customer update personal information
Preconditions:	Customer chose to update account
Normal Flow of Events:	11a. Application shows all personal information in a form to update 12a. Customer choose to change or not 13a. Customer clicks on submit or cancel 14a. Customer clicks on ChangePassword button
Postconditions:	Requests sent correctly, then the user will be directed to Customer welcome page
Frequency of Use:	low
Alternative Flows:	Customer may goes back
Exceptions:	TBD
Assumptions:	Camera available
Issues:	TBD
Associated Requirements:	TBD

Use Case ID: CUS_PSD		Use Case Name: Customer change password
Primary Actor(s):	Customer users	
Secondary Actor(s)	N/A	
Description:	Customer change password	
Preconditions:	Customer choose to change password	
Normal Flow of Events:	15a. Customer input old password 16a. Customer input new password. 17a. Customer clicks on submit	
Postconditions:	Requests sent correctly, then the user will be directed to Customer edit account page	
Frequency of Use:	low	
Alternative Flows:	Customer may goes back	
Exceptions:	TBD	
Assumptions:	Internet connected	
Issues:	TBD	
Associated Requirements:	TBD	

3.Comments:

1. All flow numbers with 'a' mark the sequence of a customer.
2. All flow numbers with 'b' mark the sequence of a seller.
3. All flow numbers with 'c' mark the sequence of a guest.