

Bubbles Express

Stage n: 2

Realizado por:

48157, João Reis

52315, Sofia Rocha

52748, Xavier Pacheco

53657, Carolina Lopes

Lab class Nº P1

Group Nº 8

Professor:

Teresa Romão

Problem

In this app we aim to facilitate laundry service to people, we want to implement an app in order to digitalize this task.

Our idea is to have strategic containers in the cities, so people would leave their clothes in these containers. The distributors can then pick up the containers and take them to the laundry chosen by the customer.

When they complete the service, they deliver it back to the customer's home, the app automatically charges the customer and pays the launderer for the service.

In our app we should also have premium laundries that would have more spotlight over other laundries. This allows us to profit more with the app.

Users

Our application is aimed at users without time to take care of their clothes (washing, drying, ironing and/or folding) or the time to take it to a self-service laundry. For these reasons, our target audience are young adults, university students and big cities residents that have some economic capacity.

In addition to these, we also have the distributors, as well as the laundries themselves. Therefore, we have three classes of users who will interact with the application with different purposes:

- The target audience, who are the customers of our application. These intend to purchase the laundry service.
- The distributors, who want to know where they are supposed to pick up and return the containers to the clients.
- The laundries that intend to know what kind of service the user desires so they are able to fulfill the client's needs.

Tasks Analysis

First Task

Goal: See available box structures

Pre-conditions:

1. User must be logged in;
2. GPS signal must be on;
3. Internet connection must be enabled.

Steps:

1. From any point in the application press the maps icon.
2. Navigate the map and the places with free containers appear in green.

Exceptions:

1. If the user doesn't have a valid internet connection the map won't load any points. If the user doesn't have a valid GPS signal the map will be loaded in a default location.

Second Task

Goal: Acquire a container.

Pre-Conditions:

1. User must be logged in;
2. The user must have bluetooth enabled;
3. The user knows where the containers are located.

Steps:

1. Go to a container location.
2. Click in the container icon.
3. Click on the "add container" button.
4. The app shows an interactive image with all the containers on that place (green for the free ones and red for the full ones).
5. Choose a free container.
6. Click on the "unlock" button.
7. Pick the container.

Exceptions:

1. A container might not be available and pairing is unsuccessful. The user should go to another location.
2. The bluetooth pairing might fail. In this case please the user should make sure that has bluetooth enabled and try again.

Third Task

Goal: Drop of your clothes securely and safely;

Pre-conditions:

1. User must be logged in;
2. User must have bluetooth enabled.
3. User must be connected to the internet.
4. User must have a container assigned.(Have task #2 completed)

Steps:

1. Click on the container icon.
2. Fill info.
 - 2.1. Fill in the type of clothes.
 - 2.2. Fill in the type of washing.
 - 2.3. Insert any additional notes.
 - 2.4. Choose the laundry you wish (or one recommended).
3. Insert the container in the structure.
4. Click on the “lock” button.
5. Choose your drop off container (for when the clothes are delivered). If you wish to use the same press “use the same”.
6. Click Pay when you are certain you won’t need to change the contents inside the container.

Exceptions:

1. The place might be full, please choose another one.
2. You might not have a valid payment method. In this case the structure will let you leave your container locked but nobody will be picking it up until the payment has been made.
3. If bluetooth is off you will receive a notification to turn it on, or else the container won’t close.
4. If the user doesn’t have a valid internet connection he will receive a notification to turn it on.

Fourth Task

This isn’t for the final client but instead it is to the middle man, a distributor.

Goal: PickUp client’s clothes and drop off at dry-cleaner.

Preconditions:

1. Driver must be logged in to the app;
2. Driver must have bluetooth enabled.
3. Driver must have an active internet connection.

Steps:

1. Stop near a container’s structure.
2. In the driver’s app click on the container icon.
3. The app shows an interactive image with all the containers.
4. Click on the “unlock” button.
5. All the ready to go containers turn green in the image.
6. Pick up all the unlocked containers and put them inside the structure in your van.
7. Select the “lock” button and lock all the containers in place.
8. Refresh your GPS route.

Exceptions:

1. If bluetooth is off the containers will not unlock/lock.
2. If wifi is off The GPS route will not update. The reason for this update is to have an optimized route and balance the number of containers the driver has at all times, in order to avoid an overflow.

Fifth Task

Goal: Edit Payment Options.

Pre-conditions:

1. Be logged in in the app.

Steps:

1. Click in the profile icon.
2. Click on the "payment options" button.
3. Click on the "edit" button.
4. Edit your payment options.
5. Click on the "save" button when you are done.

Sixth Task

Goal: Edit Profile.

Pre-conditions:

1. Be logged in in the app.

Steps:

1. Click in the profile icon.
2. Edit your profile.
3. Click on the "save" button when you are done.

Seventh Task

This task will be performed by the third actor in our system, the laundry itself.

Goal: Washing the user's clothes.

Pre-Conditions:

1. Laundry must be registered in the system;
2. Laundry must have a container dropped off.
3. Phone must have an active bluetooth connection.

Steps:

1. Navigate to the container icon.
2. Select the container you wish to unlock and take it out.
3. Select the camera icon and scan the QR code present in the container.
The container should unlock the lid and in the phone app you should see the info on how the user wished his laundry to be done.

Exceptions:

1. If bluetooth isn't on the container will not unlock.

Scenarios

First Scenario – Distributor

Goal: Pickup client's clothes and deliver them at the laundry chosen by the customer.

You have just received notification that there is a box in Lisbon to be delivered and you have moved to the place.

When you arrive, the containers marked as ready to go will be visible in the app. Unlock them from the structure and load them in your van. If you have any drop off container in the van now is the time to do it. Consult which containers you have to leave.

There is no need to update the laundry processing stage in the application, because it's automatically done by Bluetooth.

Finally, don't forget to reload your in-app navigation, in order to be sure you have the latest route.

When you arrive at the laundry chosen by the customer, deliver the container and the laundry processing stage it's again automatically updated in the application.

Second Scenario – Laundry

Goal: Perform customer order.

The container with the client's clothes has arrived at your laundry.

First you start by scanning the QR code in the box with the application. All information about the client's order is available now in the application. If everything is correct then the container will open automatically.

After accessing the application, you verified that the customer wanted to wash at 30 degrees Celsius, dry and iron.

Then, put the clothes into the machine.

After the clothes has finished washing, you pass them to the drying phase.

Finally, the clothes reach the ironing stage.

After the customer's order is finished, the clothes pass to the customer delivery phase and the processing stage will be automatically updated in the application.

Third Scenario – Laundry Customer

Goal: Edit the profile and payment information.

You have just acquired a new card and wish to use the app. However you need to present a valid payment method. Since you will be updating the payment you decide you also want to update your profile and choose another pre-defined container structure to do your pickups.