



# **CASA0015 – Mobile Systems & Interactions**

The Quest for the Best Croissant

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# Schedule

- Ideation
- Development
- Problems
- Final Submission
- Next Steps
- Questions

# Ideation

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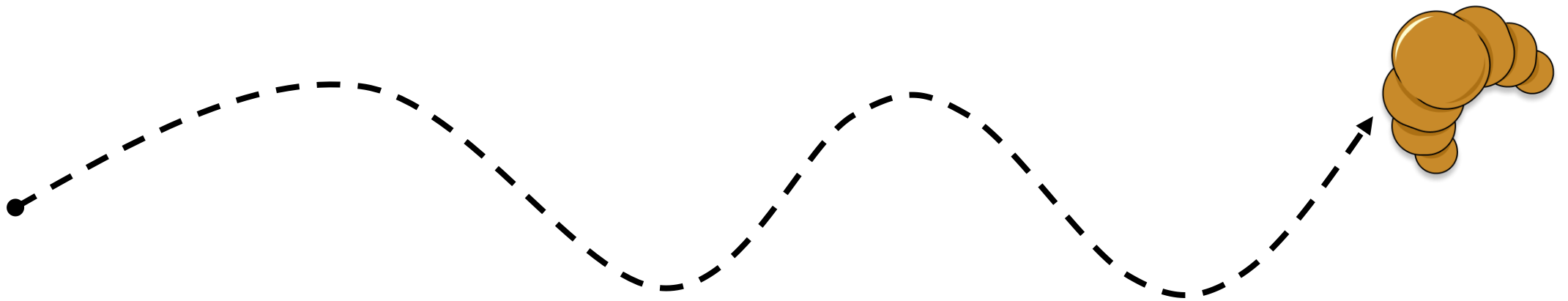
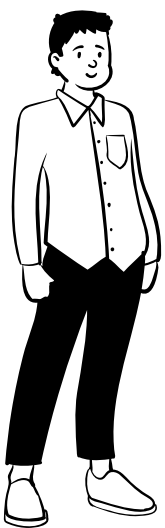
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# Inspiration & Intent

The intent of this project was to develop a mobile application using Flutter and Dart that would allow a user to press a button and be routed towards their nearest croissant.



Why? Because I love pastries.

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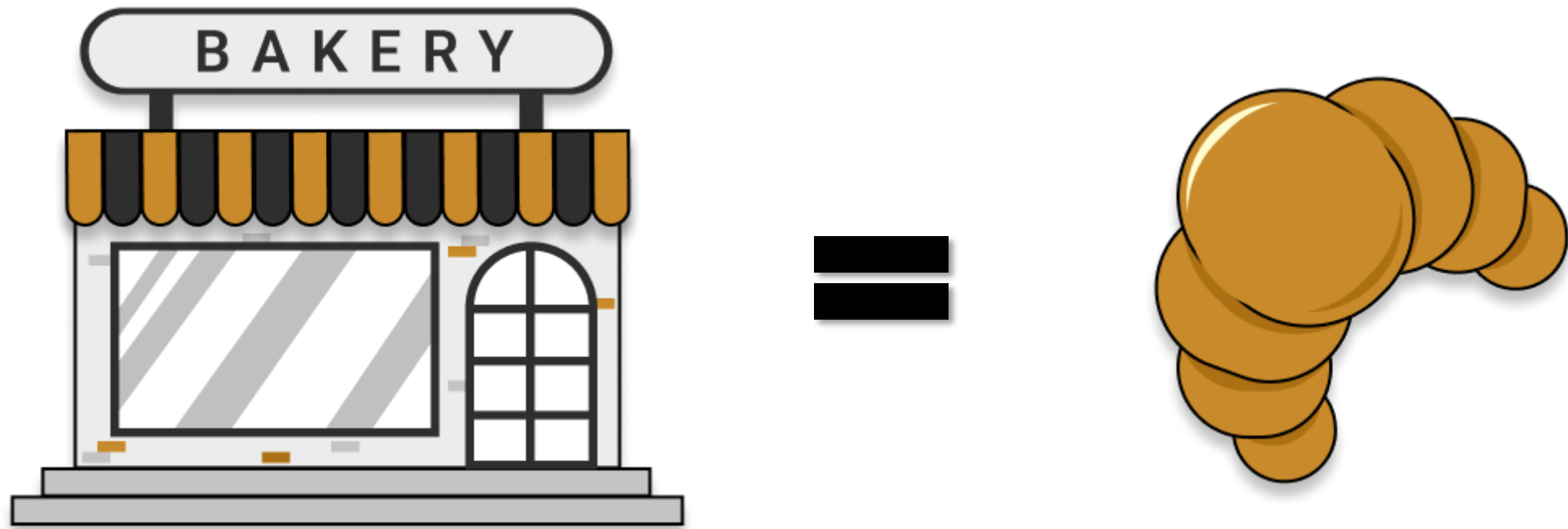
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# Key Assumptions

The major assumption being made within this project is that every bakery or cafe will have croissants.



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# Development

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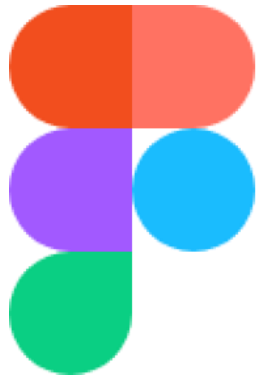
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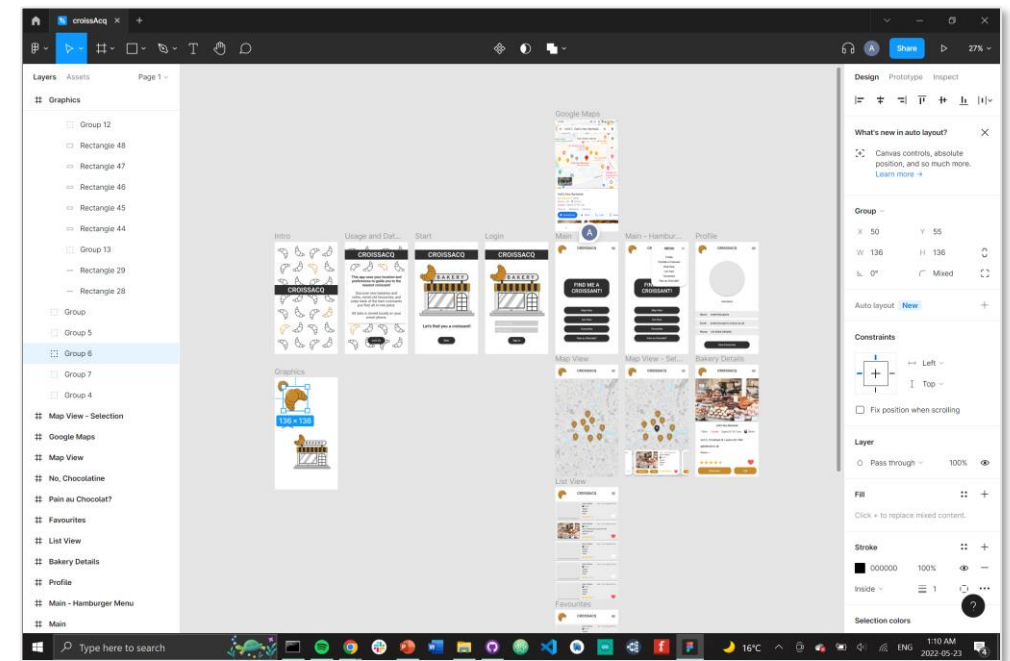


# App Prototype

Before beginning this build, I prototyped CroissAcq on Figma to get an idea of how I wanted the app to look and feel for the user.



# Figma



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# App Setup

This project began by setting up a flutter app.

The screenshot shows the first step of a Codelab titled "Write your first Flutter app, part 1". The left sidebar contains a list of steps: 1. Introduction (selected), 2. Set up your Flutter environment, 3. Create the starter Flutter app, 4. Use an external package, 5. Add a stateful widget, 6. Create an infinite scrolling ListView, and 7. Next steps. The main content area has a header "Write your first Flutter app, part 1" and a section "About this codelab" with the text "Last updated Apr 20, 2022" and "Written by The Flutter Team". Below this is a section "1. Introduction" which explains that Flutter is Google's UI toolkit for building beautiful, natively compiled applications for mobile, web, and desktop from a single codebase. It also mentions that in this codelab, the user will create a simple mobile Flutter app. At the bottom, there is a "Next" button.

The screenshot shows the third step of the Codelab, titled "3. Create the starter Flutter app". The left sidebar is the same as in the previous screenshot, but step 3 is now selected. The main content area shows a terminal window with the following commands: `cd code`, `cd github`, `cd ucl`, `cd casa@015`, and `flutter create croissAcq`. Below the terminal window, there is a code editor showing a snippet of Dart code: `body: Center(child: Text('Hello World')),`. At the bottom, there are "Back" and "Next" buttons.

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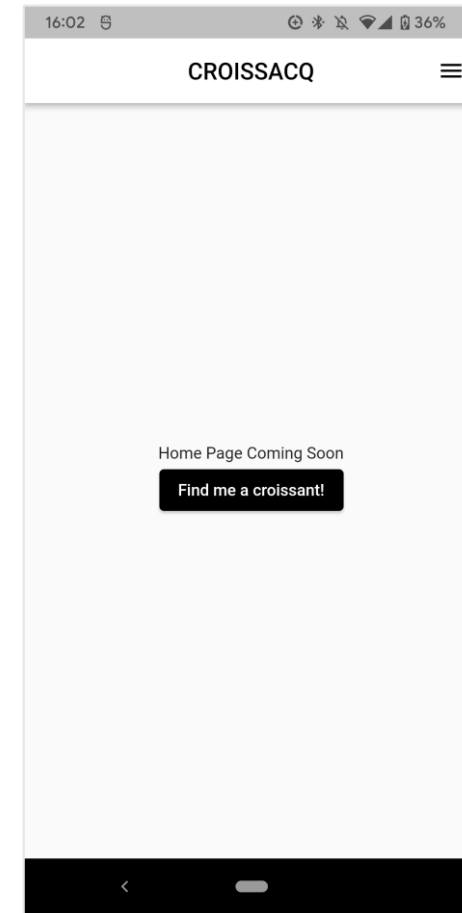
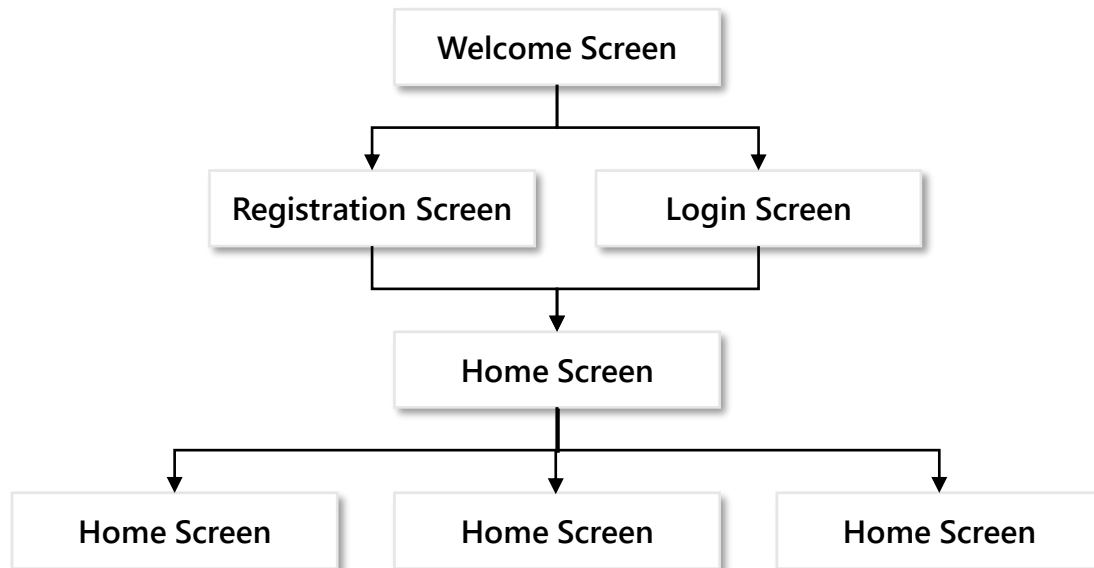
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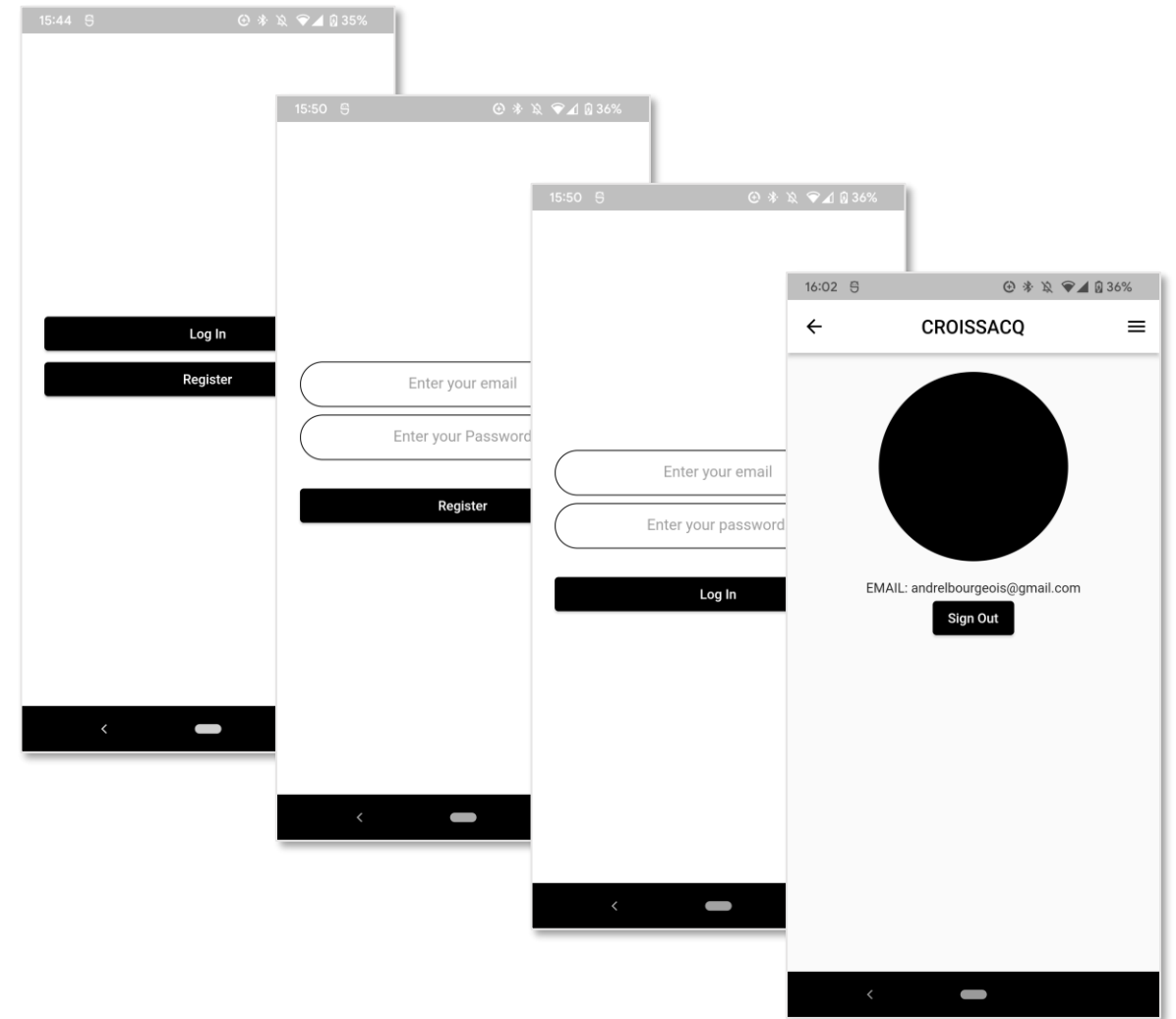
# Hierarchy and Navigation

- I decided on screen hierarchy.
- I implemented a drawer menu.



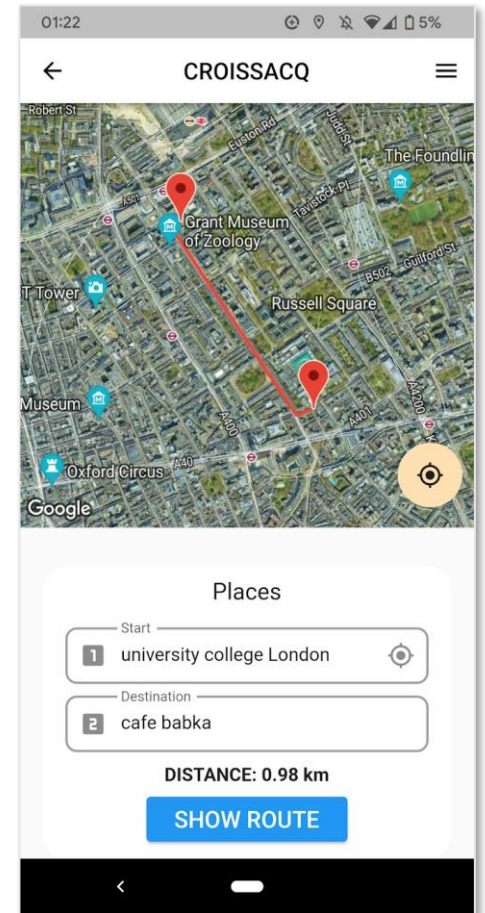
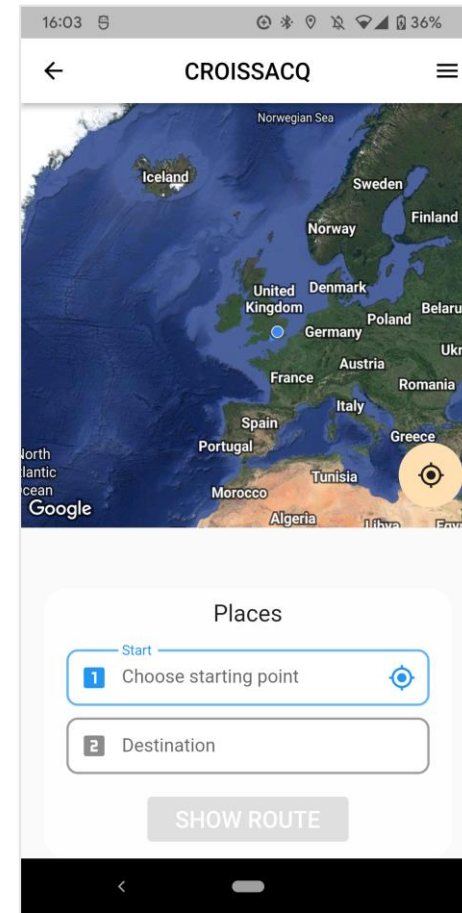
# Firebase Authorization

- I implemented welcome, registration, and login screens to obtain user information (email and password).
- I implemented profile screen which retrieves user information (email) from Firebase and displays it for the logged in user and allows the user to log out.



# Mapping and Routing

- I used Google Maps API to natively host a map within CroissAcq.
- I implemented routing by retrieving the user location and using polylines, geolocation, and geocoding.



# Problems

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# My Application to the Wall of Stupid Mistakes

- **Code replication for the drawer menu**

I had already replicated the code throughout various screens before deciding the drawer menu would work better as a function.

- **Accidentally uploading API keys**

This happened 5 times as I tried to figure out how to remove the necessary files from being track.

# Final Submission

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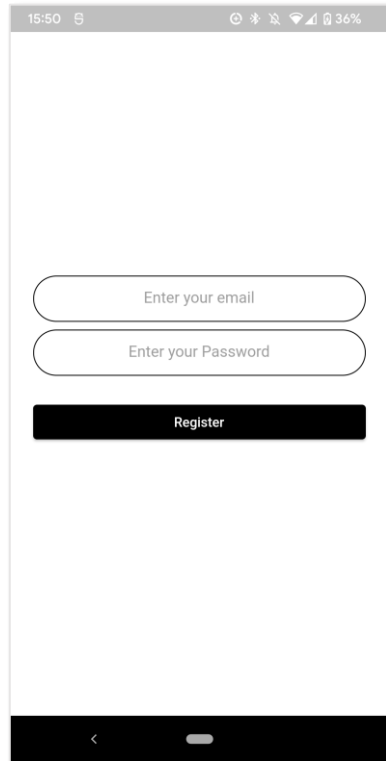
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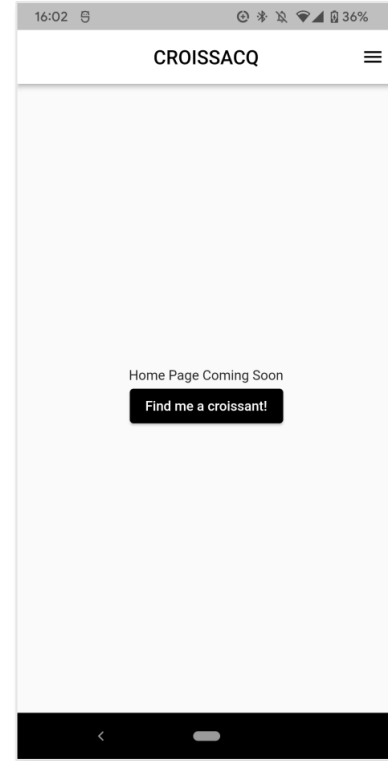
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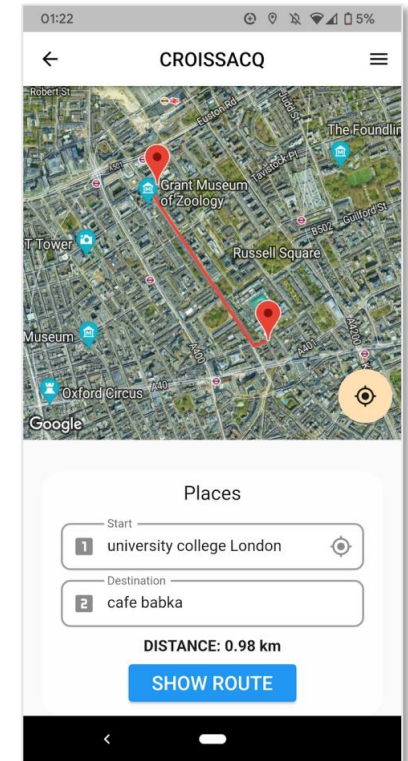
User Information Handling



App Navigation



Mapping Functionality



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# Next Steps

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# Next Steps

The most critical next step for this project would be using the existing functionality to make a single button which can route a user towards their nearest bakery or cafe.

## Other To Do's

- Make colouring and themes consistent
- Implement avatar image in drawer menu and profile screen
- Ask for more user information
- Isolate mapping functions into a separate file
- Implement validation error handling for user authorization

# Questions

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