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Comfrey Project

Description

Welcome to The Comfrey Project, a local charity who works with refugees and people seeking asylum in Gateshead. They improve their volunteer's conditions of life by and wellbeing, while building different skills at their centre in Windmill Hills.

By building an app for them my aim is to help their community getting together by providing a simple app with shows things like what they are currently growing on the farm, making their own recipes collection easily available, a better way of providing notifications about events coming up.
I also want to help them share what they are offering to the world and inspire other people to join them if they are looking for asylum or just looking to help.

Intended User

Users are at the core of the app and any feature should be the reflection of a user need or request.
Having a public app means that anyone can use the app. Having that in mind users will be categorised in Asylum seekers, Volunteers and Visitors.

Asylum seekers
The Comfrey Project welcomes Asylum seekers and also people who are in need of some kind of social support they can be either self referred or externally referred by other people, charities, local council or government.

Volunteers Volunteers
are people who are registered as part of the Comfrey Project team and participate on activities and events.

Visitors
A visitor could be anyone else who's not involved in the Comfrey Project. They can be someone who installed the app from play store, a person who installed the app by recommendation of a volunteer. At some point a visitor can even be someone from another charity.

Features

Launching the app will show the user a list of options: Plants, Recipes, Get Involved and About.

Clicking these options will open new screens.
- Plants screen: will have a list of plants for the user to click.
    - The detail screen for each plant will contain information about the plant, the patreon, benefits, care tips and a link to recipes featuring this plant.
- Recipe screen: will have a list of recipes for the user to click.
    - The detail screen for each recipe will contain the recipe ingredients list and the steps to perform the recipe.
- Get involved screen will have the different ways to get involved:
    - How to volunteer
    - Sign in the newsletter
    - Donate Money
    - Donate Materials
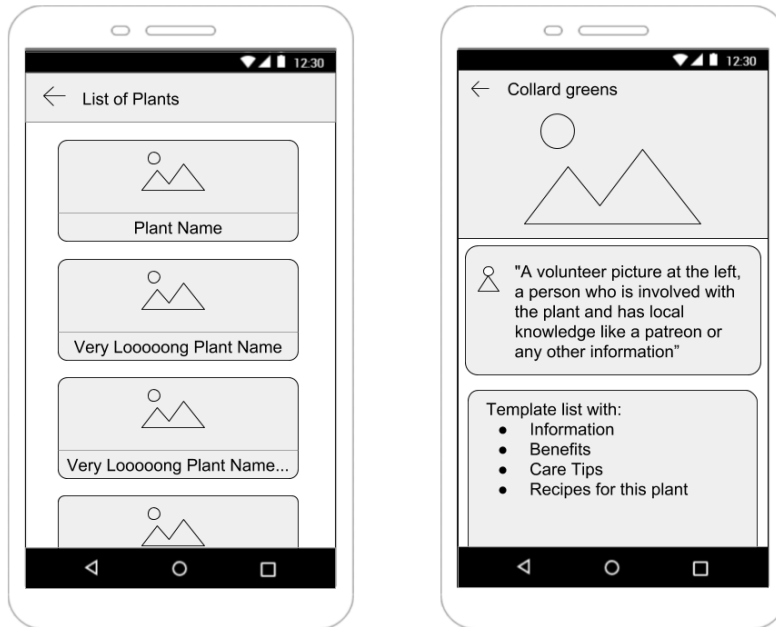- About screen will have the most relevant information about the charity.

User Interface Mocks

Main Screen
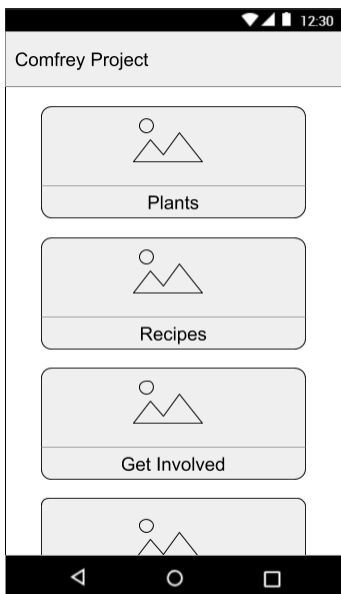
This will be the main screen of the app where landing users can quickly access the available options: Plants, Recipes, Get Involved and About

Plants Screen

The plants screen will consist of a master list with a list of plants which upon clicking will open the detailed plant screen with the plant details.

Recipes Screen
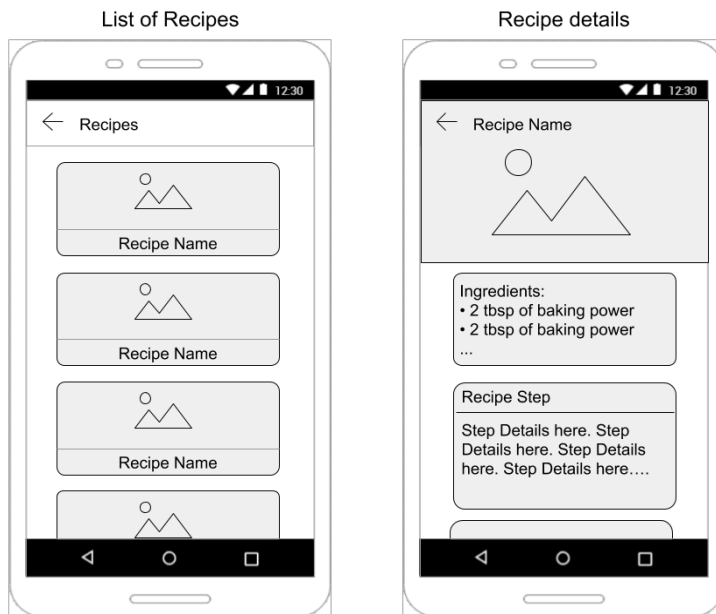
The recipe screen will contain the recipes and clicking a recipe will open the Recipe details screen. The recipe details screen will have the ingredient list and the recipe steps.

Get Involved Screen
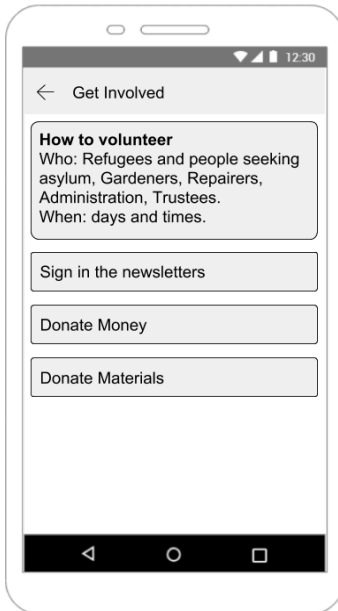
This screen will contain the various ways any person can get involved with The Comfrey Project: How to volunteer, a easy way to sign up for the newsletter, how to donate money and materials.

About Screen
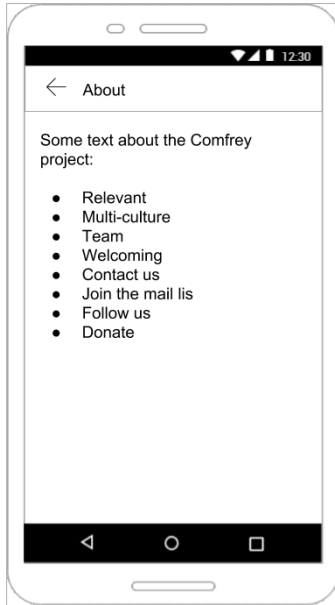
This screen will contain a resume of relevant information about The Comfrey project.

Key Considerations

How will your app handle data persistence?

Data will be fetched daily by a firebase JobScheduler and then it will be persisted by saving it in a Room database and presented using a content Provider e Loaders

Describe any edge or corner cases in the UX.

The navigation within the app will be fairly simple considering the following diagram. Green arrows represent user choices and the back button will bring the user to the screen where he was before.

Main ➡ Plants ➡ Plant Details ➡ Recipe Details

Main ➡ Recipe ➡ Recipe Details

Main ➡ Get Involved

Main ➡ About

Describe any libraries you'll be using and share your reasoning for including them.

The libraries used by this app will be
  ● Retrofit to help getting data from the web
  ● Gson will be used to parse the data from a Json file to Objects
  ● Room will be used to persist data in a local database
  ● Stetho to view the database on the device
  ● Firebase-jobdispatcher in order to only sync data daily
  ● Glide to show images from urls
  ● Firebase-messaging for notifications
  ● Espresso for testing

Describe how you will implement Google Play Services or other external services.

Firebase Storage will be used to store a starting database and also to store plant images in a bucket.

Next Steps: Required Tasks

This is the section where you can take the main features of your app (declared above) and break them down into tangible technical tasks that you can complete one at a time until you have a finished app.

Task 0: Data Collection

- Talk with The Comfrey Project manager to gather data and create requirements for minimum viable product ✔
- Gather more information and organise data
    - Pictures of every plant and vegetable
    - Set a template for each plant information
    - Set a template for each recipe ingredients and steps
    - Get text and sections for Get involved
    - Get the text for the About screen

Task 1: Project Setup

- Start a new project on Android Studio and commit to github.com
- Setup a firebase project
- Configure the used libraries and ensure there are no conflicts.

Task 2: Organise Server Data

- Set a JSON file on a data bucket on Firebase Storage
- Set bucket folder for pictures
- Organize the pictures url in the JSON file

Task 3: Implement UI for Each Activity and Fragment

Build UI for:
- MainActivity

- PlantsActivity and PlantDetailsActivity
- RecipeActivity and RecipeDetailsActivity
- Get Involved
- About

Task 4: Implement Navigation

- Implement navigation intents
- Create tablet layout for Plants and PlantDetails
- Create tablet layout for Recipes and RecipeDetails

Task 5: Getting data to device

- Implement Retrofit using class for Interface and Client API
- Get data from the web
- Create Data Classes
- Implement Gson parse the data from a Json file to Classes
- Implement Room and Stetho to inspect database
- Create a SyncService class and sync intents using Firebase-jobdispatcher

Task 6: Show data on UI

- Use the ContentProviders and Loaders to populate views
- Implement Glide to show images

Task 7: Implement Notifications

Add firebase-messaging and check if we get notifications.

Task 8: Add free and paid build variants

- Free variant will contain ads on MainActivity.
- Update UI Classes and layouts

Task 9: Add unit tests and UI tests

- Implement UI Testing using Espresso

Task 10: Handle errors cases

Task 11: Test with real users and improve

Task 12: Get Translations

- Language priority should be the most common spoken by Comfrey Project Volunteers

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- After you've completed all the sections, download this document as a PDF [File → Download as PDF]
    - Make sure the PDF is named "**Capstone_Stage1.pdf**"
- Submit the PDF as a zip or in a GitHub project repo using the project submission portal

If using GitHub:
- Create a new GitHub repo for the capstone. Name it "**Capstone Project**"
- Add this document to your repo. Make sure it's named "**Capstone_Stage1.pdf**"