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Happy Grocery

Description

Happy Grocery is an app, written entirely in Java, that will help users build and manage grocery lists.

Intended User

Happy Grocery's intended user would be anyone who grocery shops, and wants to simplify the experience by templatizing lists and organizing grocery shopping items by recipes.

Features

- Ability to create or delete grocery lists
- add /remove items from grocery lists
- Ability to create or delete recipes
- add /remove items from recipes
- Add recipes to grocery lists

User Interface Mocks

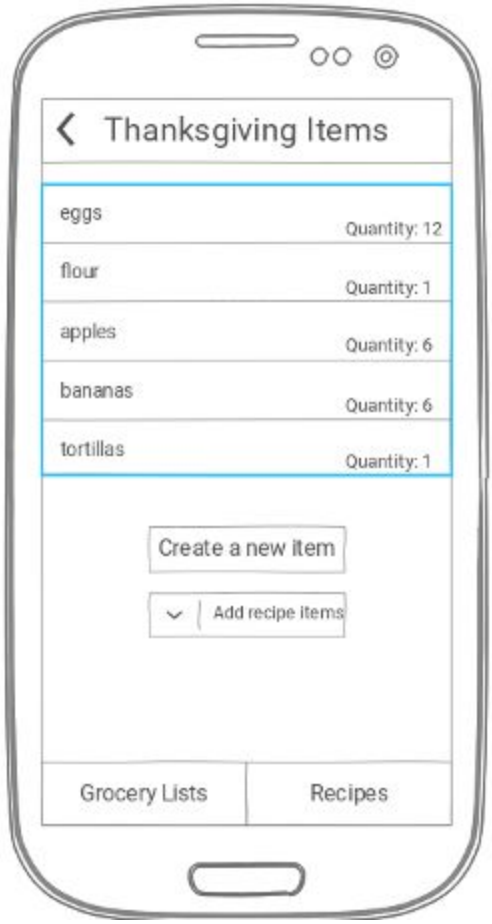
‘Grocery List’ screen

Above image will be the initial screen once logged in. This screen will display the list of the users Grocery lists. Upon clicking the create new list button, a new list item will appear ready to be named. Upon clicking a grocery list, the ‘Item List’ screen will appear.

‘Recipe List’ screen

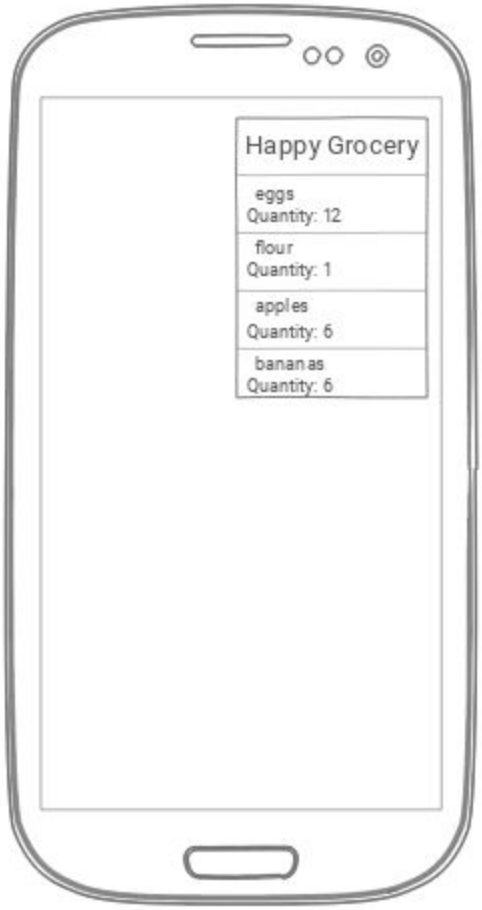
This screen will display the list of the users recipes. Upon clicking the create new recipe button, a new list item will appear ready to be named. Upon clicking a recipe, the ‘Item List’ screen will appear.

‘Item List’ screen



This screen will display the list of items in a recipe or a grocery list. Upon clicking the create new item button, a new list item will appear ready to be named. Upon clicking an item, the item name and quantity will be editable. Upon clicking the Add recipe items dropdown, the list of user recipes will show allowing the items in the recipe to be added to current item list.

‘Widget’ screen



The widget will provide a view of the latest grocery list for ease of viewing while shopping

Key Considerations

How will your app handle data persistence?

Grocery Lists, list items, and recipes will be persisted using Firebase Realtime Database.

Describe any edge or corner cases in the UX.

Connectivity is lost to Firebase Realtime Database will need to be handled by issuing a connectivity error.

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

Android Studio	Version 3.5.3
Gradle	Version 5.4.1
Android gradle plugin	Version 3.5.3
androidx.appcompat	Version 1.1.0
3rd party EasyListViewAdapters	Version 1.0.0
3rd party Android Bootstrap	Version 2.3.2

Possible 3rd party libraries that Happy Grocery will use:

- EasyListViewAdapters: For simplifying and building more clean list views

Found at: https://github.com/birajpatel/EasyListViewAdapters

- Android-Bootstrap: For having bootstrap style widgets for Happy Grocery

Found at: https://github.com/Bearded-Hen/Android-Bootstrap

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

Happy Grocery will use Firebase auth for user id and authentication. Happy Grocery will also use Firebase Realtime Database to persist grocery list data.

Next Steps: Required Tasks

Task 1: Project Setup

- Create Project in android studio
- Configure libraries needed
- Configure needed setup for Firebase auth and Firebase Realtime database
- Put all Strings and images needed in resources

Task 2: Build Activity for 'Grocery List' Screen

- Create ‘Grocery List’ activity
- Build layout and views for ‘Grocery List’ activity
- Setup appbar

Task 3: Build object model

- Build the object model for grocery lists, recipes, and items
- Build Firebase Realtime database connectivity and CRUD operations for object model
- Tie in the CRUD operations with the existing activity’s buttons.

Task 4: Build item list and recipe list activities

- Create ‘Recipe List’ and ‘Item List’ activities
- Build layout and views for these activities
- Setup intents to work with all the activities

Task 5: Build widget

- Build widget that allows view of latest grocery list for ease of viewing current grocery list while shopping
- Widget will have the ability to launch an intent service for updating that the grocery list is completed as in no longer the current grocery list.

Task 6: Final Touches

- Test app thoroughly
- Build the signing configuration and keystore