

Capstone: Stage 1

Reddit Android Application

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Description

Reddit is a social networking application as well as a news source. It can also be called “The front page of the internet”. One can customize their news feed as well as interact with others over each post. This is an application which facilitate user by providing wide range of content in a well defined way. The user can easily get their favorite post as widget.

Intended User

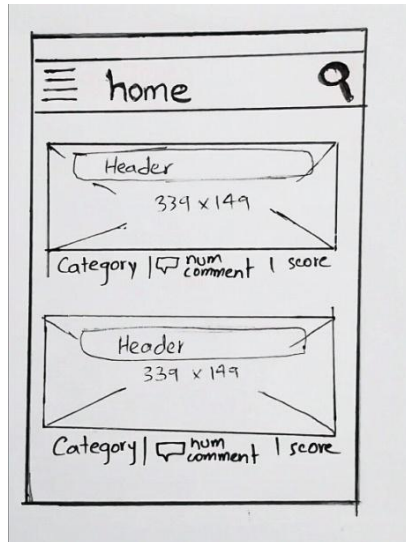
This is an app for those who want to search, store or read variety of information in a feasible way.

Features

- Google Analytics
- Information save ability
- Reddit API to display content.
- Organize subreddits
- Search for subreddits
- Share subreddits
- Favoriting content
- Widget of favorite content on home screen.
- Detail view of a subreddits upon selection.
- Landscape vs portrait mode
- Reddit banner Ad

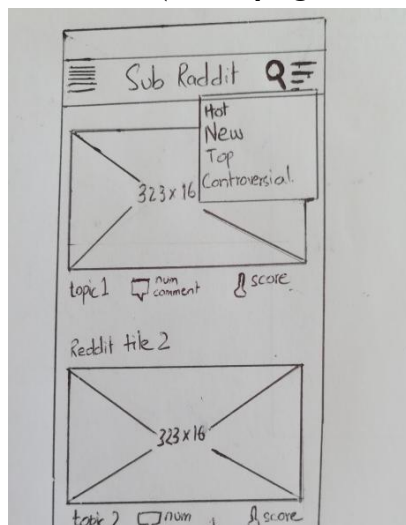
User Interface Mocks

Screen 1 (Home screen)



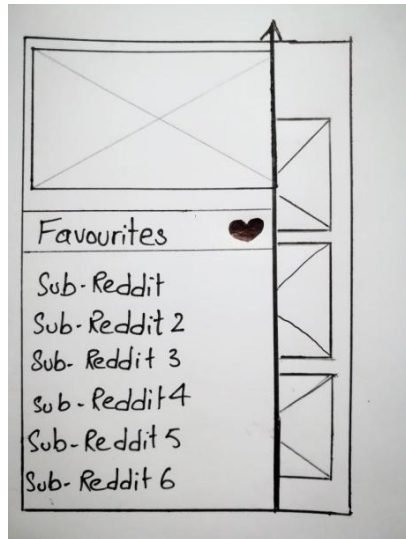
- Contains search bar, main header, category name, post's score, and amount of comments.

Screen 2 (Main page of a selected subreddit)



There's a navigation bar to have favorites, and will allow one to manage subreddits. There's also a search option on the top of the screen as well as a sorting feature.

Screen 3 (Navigation view)



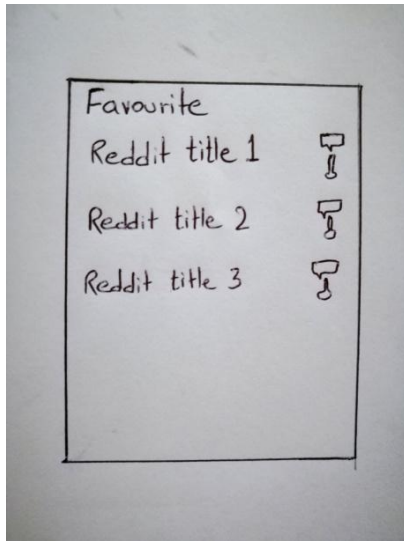
Navigation drawer view.

Screen 4 (Post view)



View of a post which contains image under the header then comments.

Screen 5 (Widget)



This is the image of widget that can be added to the home screen. The favorite reddit's are directly displayed through it.

Key Considerations

How will your app handle data persistence?

The application will rely on content provider. It will save the favorites in a SQLite DB, and when any keyword search is performed within a short duration such as search, the application uses an AsyncTask

Describe any edge or corner cases in the UX.

The application will display the loading progress for each post when the application is fetching said image/post from the server. When there is no internet connection, the application will post a message “No internet connection found”. Another message will appear when there is no search.

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

- Retrofit: REST API calls
 - o Rationale was that it works well with getting large amounts of data
- Glide: image load and processing for high resolution images

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

I will use Google Ad service to display ads with in app and to implement Google Analytics.

Programming Language

Java language will be used for development.

Library Version

I am using the following version of libraries;

- Android Studio 3.1.3
- Gradle 4.4
- Android Support Library 27.1.1
- Google Play Service 11.8.0
- Retrofit 2.4.0
- Glide 4.7.1

Core Platform Development

App keeps all strings in a strings.xml file and enables RTL layout switching on all layouts.

App includes support for accessibility. That includes content descriptions - alternate text for an object.

Next Steps: Required Tasks

Task 1: Project Setup

In Step 1- the app should include the following libraries:

- Data Binding enabled: for accessing all UI elements directly.
- Retrofit: for getting data from Reddit REST API.
- Glide: for getting images and scale them.
- Google Play Services.

Task 2: Implement UI for Each Activity and Fragment

Here is the list of UI I'm going to build first:

- Build UI for Main Activity
- Build UI for Detail Activity
- Build UI for Detail Fragment
- Build UI for managing the subreddits.

Task 3: Implementation of Reddit API:

Reddit API will be implemented using retrofit. After getting successful will parse the data which is in JSON format and display it in a list. Here is the list of API's that will be used :

- <https://www.reddit.com/.json>
- <https://www.reddit.com/r/cake/.json>
- <https://www.reddit.com/search.json?q=cake&sort=new>

Task 4: Set up the Activity

After building all UI elements. Reddit API will be implemented using retrofit. After getting successful;

- Create list view to adjust the item list of Reddit and when navigation drawer is opened the whole view is changed.
- Sorting of list view according to category.
- Searching based on query within subreddits.
- Used the detail activity and detail fragments on click on each item.

Task 5: Implementation of Content Provider

Create a content provider which will be able to save on tap of each favorite icon in the detail view. SQLite will save that favorite item and will be displayed in a widget.

Task 6: Implementation of Google Ads

To implement this app will need the google-service.json file and Ad unit id hardcoded in the app. With that an Ad banner is implemented to display the Ad

Task 7: Implementation of Google Analytics

Set the entire configuration in the Google developer's panel and screen tracking system will then be implemented.