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Reddease

Description

Write a brief summary of what your app does. What problem does your app solve?
(I don't have an idea in my mind yet, so I decided to implement the sample Reddit project)

The user subscribes to a large number of subreddits, finds it hard to keep up with them, and has long stretches where some are neglected. He/she wants a way to get news/posts/threads from all of them equally. To resolve this problem, my app will retrieve the top one/two posts from each subscribed subreddits. In addition, my app allows users to subscribe to and save their favorite subreddits. For some unimplemented functionalities, the app redirects users to the system browsers to experience them.

Intended User

The intended users are "redditors" who have a large number of subscriptions and have trouble of keeping track of them due to unbalanced incoming posts from each subreddits.

Features

1. Retrieve posts (1 or 2) evenly from each subreddits an user subscribes to.
2. Allow users to subscribe or unsubscribe subreddits.
3. Allow users to save their favorite contents.
4. Allow users to search posts/subreddits.
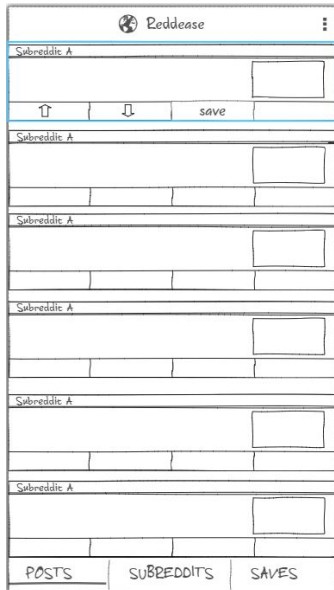
User Interface Mocks

These can be created by hand (take a photo of your drawings and insert them in this flow), or using a program like Google Drawings, www.ninjamock.com, Paper by 53, Photoshop or Balsamiq.

Screen 1
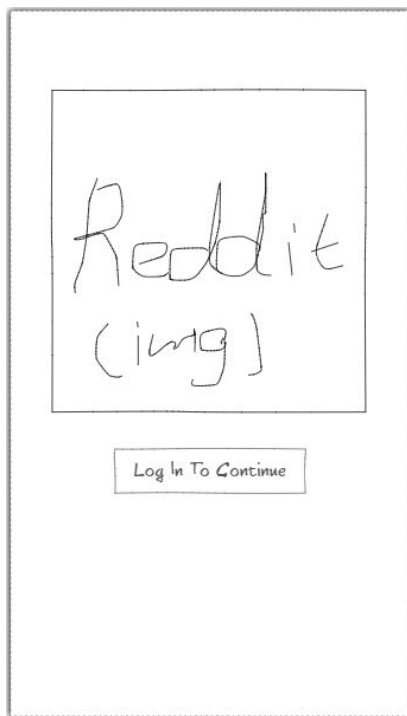
1. This is the login page where the authentication(Oauth2) takes place.

Screen 2

1. ViewPager is at the bottom.
2. This is the page where users can read post briefly and perform actions(favor or unfavor a post and save post)
3. For each subreddit, it will have the same number of posts
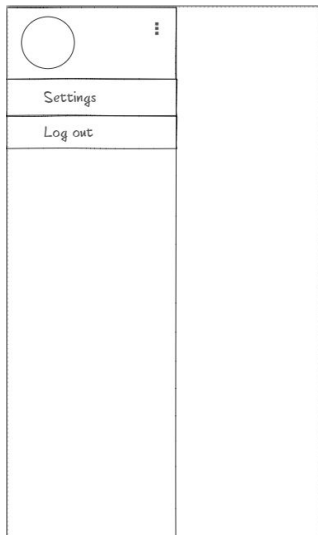
Screen 3

1. This is page where users can (search and) subscribe or unsubscribe subreddits.

Screen 4

1. This page allows users to see what posts they have saved.

Screen 5

1. This is the drawer.
2. Users can choose to navigate to setting page or login page (by logging out)

Screen 6

< ⊕ Reddit (Detail)   ⋮
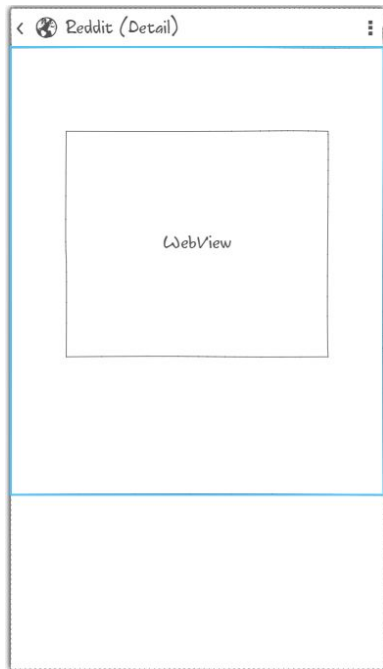
WebView

1. From screen 2, when users tap on each post, user will be redirect to a webview of(reddit official page) to perform further actions.

Screen 7

< ⊕ Setting

font	Default
font size	12
Location	Los Angelas ON
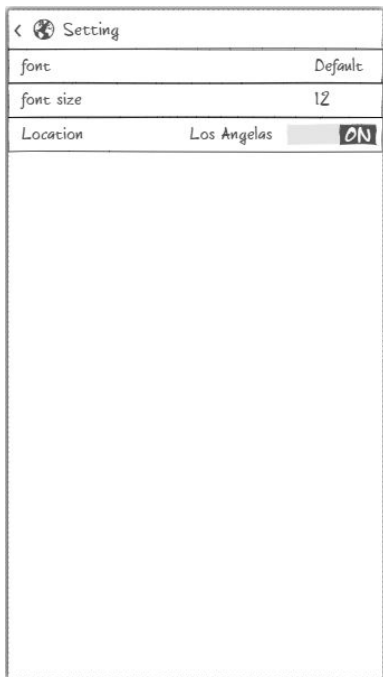
1. This page allows users to change both app settings and reddit setting.

Screen 8

1. By default, the widget will display two posts. The number of post can be adjusted in the setting section.

Key Considerations

How will your app handle data persistence?

1. Sharedpreference
   a. Stores oauth aceess_token and refresh_token
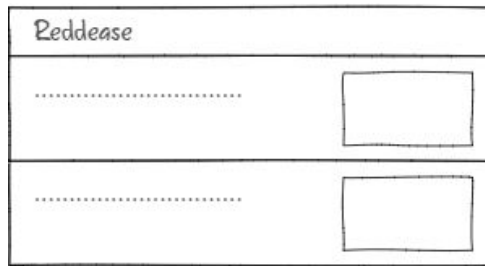   b. Stores app's local configurations (such as font, font_size)
   c. Store current location
2. SQLite + content provider
   a. Stores the most recents posts used for offline

Describe any edge or corner cases in the UX.

1. When the internet is off, there will a red indication bar right under the action bar, showing the users that the internet is off. In addition, the post list reuses the most recent viewed posts, which have been stored in the database. If the database is empty, the post list will be replaced by a default image. Meanwhile, snackbar will appear at the bottom with a button, which allows users to retry network connection.

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

Glide: handling loading and caching of images.
Butterknife: handling view bindings.
Retrofit: handling http requests
Gson: will use with retrofit to turn json object to java object
(maybe) Rxjava: handling async logic

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

Google Play Services:

Location: will be used to retrieve relevant subreddits

Analystics: add Analytics to measure user activity to named screens

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 1: Project Setup

Added dependencies for third-party libraries
1. Glide
    a. `implementation 'com.github.bumptech.glide:glide:4.5.0'`
    b. `annotationProcessor 'com.github.bumptech.glide:compiler:4.5.0'`
2. `ButterKnife`
    a. `compile 'com.jakewharton:butterknife:8.8.1'`
    b. `annotationProcessor 'com.jakewharton:butterknife-compiler:8.8.1'`
3. `Retrofit`
    a. `compile 'com.squareup.retrofit2:retrofit:2.3.0'`
4. `Gson`
    a. `compile 'com.google.code.gson:gson:2.8.2'`
5. `Rxjava`
    a. `compile 'io.reactivex.rxjava2:rxandroid:2.0.1'`
    b. `compile 'io.reactivex.rxjava2:rxjava:2.1.7'`

Task 2: Implement UI for Each Activity and Fragment

1. Build UI for login activity
2. Build UI for home(main) activity
    a. includes a ViewPager

          i.   (fragment) UI for <u>posts </u>list

          ii.   (fragment) UI for <u>subreddits </u>list

          iii.   (fragment) UI for <u>saved-posts </u>list

    b. Includes a slider

3. Build UI for <u>detail </u>post

    a. Includes a webview

4. Build UI for <u>setting </u>fragments

Task 3: Authentication (Oauth2)

1. Retrieve access_token and refresh_token.
2. Save tokens to SharedPreference

Task 4: Logout
1. Add a logout button to slider
2. By clicking the logout button, clear all relevant infos and redirect users to login page.

Task 5: Retrieve post list

1. Use relevant reddit apis to retrieve 4 posts from each subreddits the user is subscribing to.
2. Implement an <u>intentService </u>for api calling.
       a. Create layout with <u>swiperefreshlayout</u>
            i.   Implement onRefresh method to make an api call, updating the entire post list.
       b. If posts of any specific subreddit run out, make an api call to refill.
3. For each subreddit, display only 1 post at a time.
       a. Implementing finger gestures
            i.   Swipe left (for next post)
            ii.   Swipe right (for preview post)
       b. Implementing voting functionality (using api for voting)
       c. Implementing save functionality (using api for saving)
4. Implement <u>onClick</u> listener:
       a. Navigate to <u>detail activity</u> (contains a webview)

Task 5: Subreddits list

1. Create layout
       a. There is a button associate to each subreddit
2. Make an api call to retrieve a list of subreddits.
3. Implement <u>onClick</u> listener for buttons,

a. Make an api call to subscribe the corresponding subreddits

Task 5: saved-post list
1. Create layout (similar to post list)
2. Make an api call to retrieve a list of saved-post list

Task 6: Setting page
1. Create layout
2. Store user configurations to SharedPreference and make sure main activity listens to changes.