GitHub Username: aggarwal-ankur

Quick Reddit

Description

The app that lets you read your favorite subreddits quickly, without the need to go through those you don't care about. Read **Hot**, **New** and **Top** posts from each subreddit with a single click. Receive the latest posts right on your home screen with our "Quick" home screen widgets !

Intended User

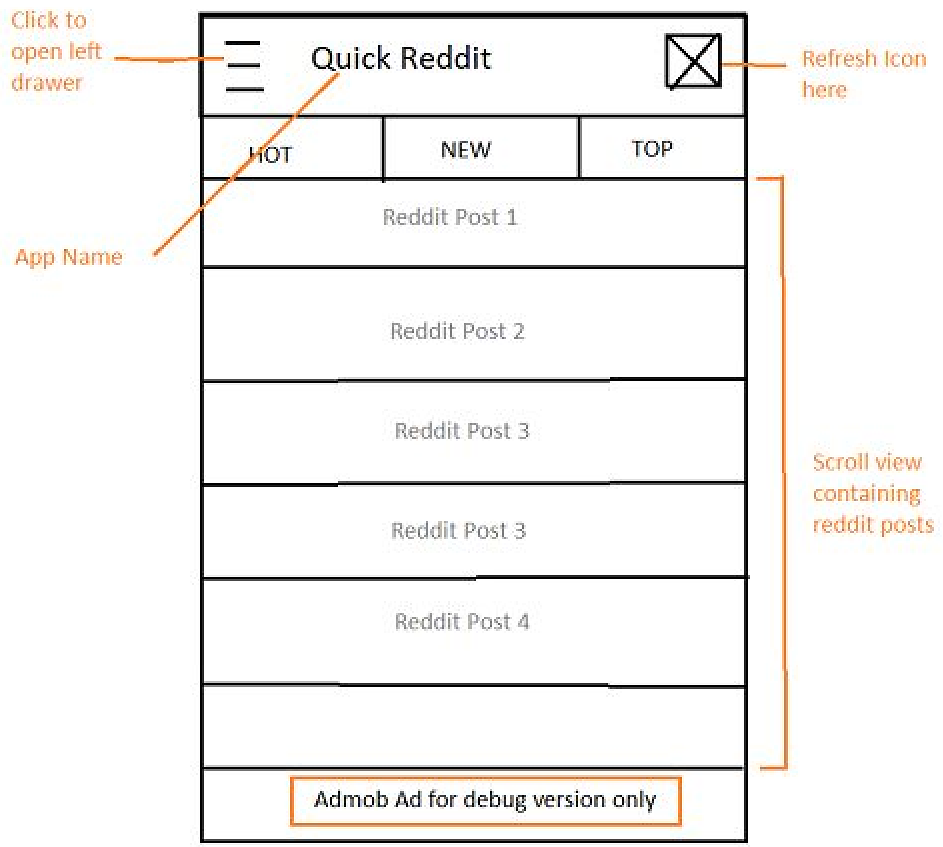
Reddit users who need a quick way to view their favorite subreddits.

Features

- Allows user to subscribe to favorite subreddits.
- Presents the “Main Page” and subscribed subreddits as a stream.
- Displays top 1 post from the “Hot”, “New” or “Top” sections of the subreddits in the subreddit stream.
- Displays the detail view of the post, if user clicks on the post.
- Allows user to scroll left/right to view the next/previous post.
- Ability to view the full stream from the subreddits (20 posts are fetched at a time. If user scrolls, 20 subsequent posts are fetched).
- Displays the 1st post of a subreddit in a home-screen widget (2X3 widget).
- Plays the video in an external player, using Intents.
- Allows user to click on a link and displays it on an external browser, using Intents.

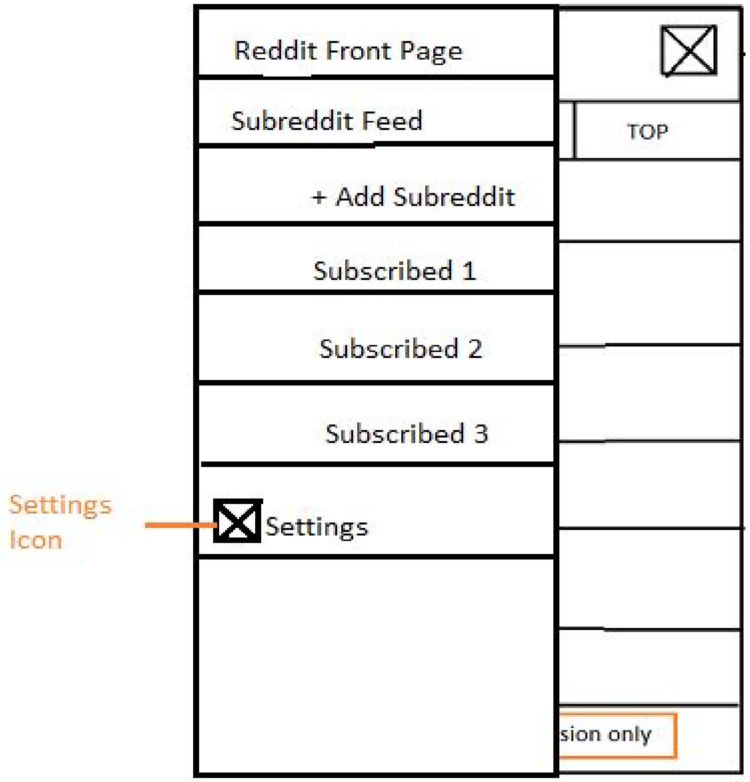
User Interface Mocks

Screen 1



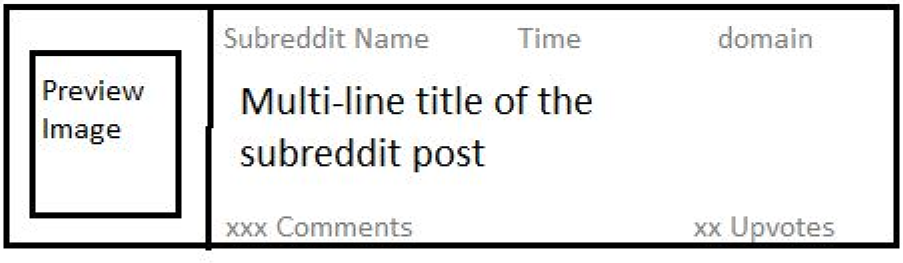
The landing page of the App. This displays a scrollable list of reddit posts. The debug version has a placeholder for an Admob Ad at the bottom, whereas the release version does not have this. The user can press the refresh icon to refresh the data. The three tabs “Hot”, “New” and “Top” are clickable and present the respective data

Screen 2



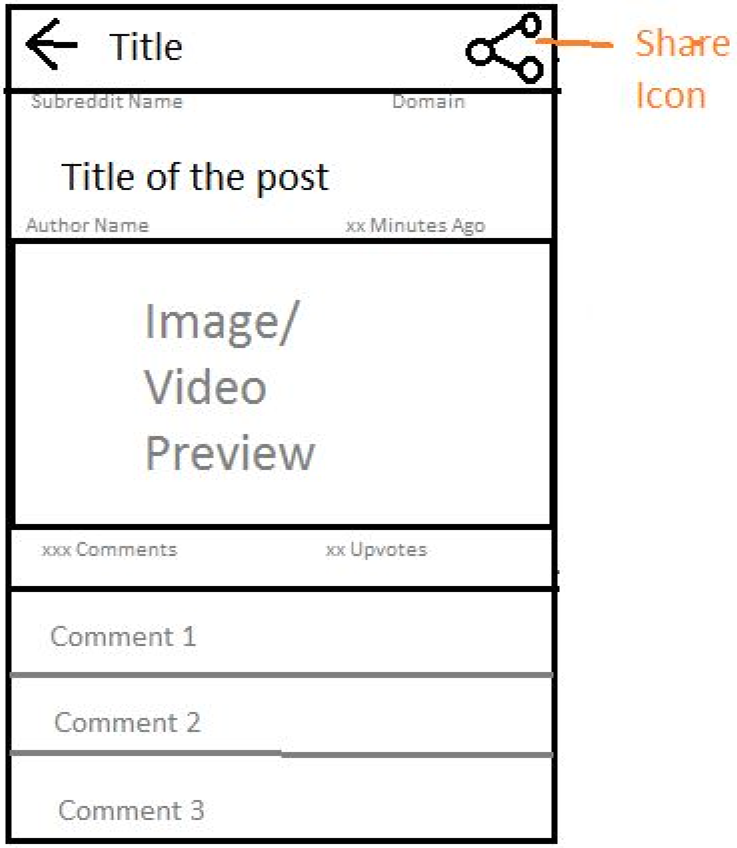
This is the left hand nav drawer which is shown if the user presses the “Breadcrumb” icon on the main page. The user can choose between the main page, subreddit feed or a subscribed subreddit to display on main page. The user can add subscriptions by clicking on “Add Subreddit” button.

Screen 3



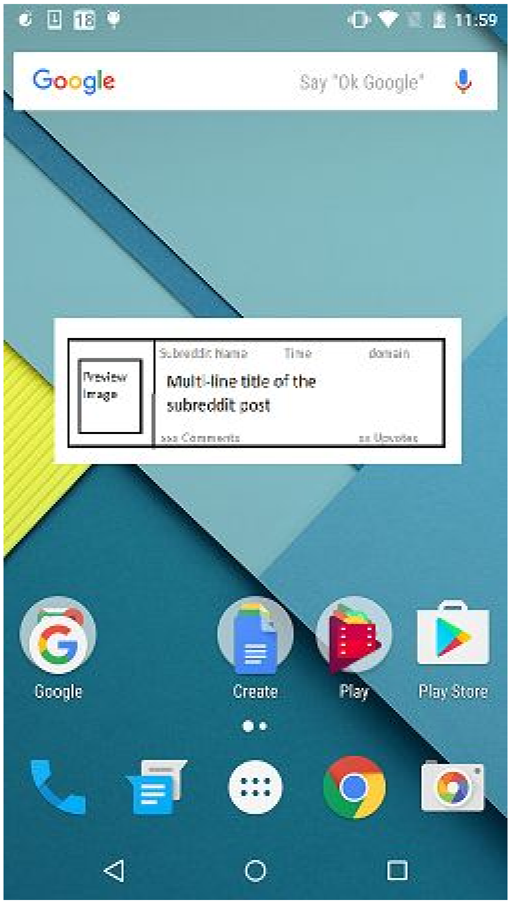
This describes a single item for the subreddit list.

Screen 4



This is the detail activity, which is shown when the user clicks on a reddit post. This allows the user to swipe left to go to next post and swipe right to go to previous post.

Screen 5



This is a preview of how the widget would look like on Home Screen. Clicking on the widget would open the detail activity of the clicked reddit post. The user can choose which subreddit should be displayed on the widget.

Key Considerations

How will your app handle data persistence?

The app would use a content provider. The database would be a standard Android SQLite database.

Describe any corner cases in the UX.

- If the user is on the first post of a post (in detail activity), swipe right would do nothing. Similarly, if the user is at the last post, swipe left would do nothing.

- If the user clicks on the app widget, it would navigate to the detail activity. However, at this point, swipe left and right would not work.

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

App would use Picasso to handle the loading and caching of images. App uses Gson library for parsing the Json responses.

Describe how you will implement Google Play Services.

App uses Google Play Ads for displaying Ads in debug version only. The App uses Analytics service for logging user activity.

Next Steps: Required Tasks

Task 1: Project Setup

- Configure a Github repository.
- Use Android Studio automated tasks for generating the starter code. Configure the package name properly using Android Studio.
- Configure Picasso and google Play service libraries in the gradle file.
- Configure a debug and release version in the gradle file.
- Select a color template for the app.

Task 2: Implement UI for Each Activity and Fragment

Create the UI for the App:

- Build UI for MainActivity:
    - Use Android Studio automated code generation to add an xml and an Activity.
    - Create a "Left Navigation Drawer" in the activity.
    - Create tabs for "Hot", "New" and "Top" posts
    - Create list using RecyclerView for the reddit stream
- Build UI Left Navigation Drawer :
    - Create a Left Navigation Drawer
    - Create a List for displaying the subscribed subreddits
    - Add the settings view below the subreddit listview

- Build UI for Details Activity
    - Create the XML and the JAVa file using the automated code generator of Android Studio
    - Customize the UI for the activity
- Build UI for the Settings activity
- The layouts and dimens for tablets should be separate.

Task 3: Implement App Navigation

Because the actual data is not available right now, use stubs and dummy data for testing the UI and App Navigation in this step:

- Populate the Main activity with dummy data
- Create click listeners, swipe listeners, etc.
- Implement callbacks for the fragments and implement them in the respective activities
- Test app navigation. Fix if something is not per expectations
- Picasso library should be used for loading images
- Intents should be used for displaying external links and playing Videos

Task 4: Create service and ContentProvider to fetch and store data

We create a service for fetching the data from reddit.com. The data is displayed on the UI using a content provider:

- Create a Service for fetching the reddit data. The requests should be executed on a non-UI thread.
- Create a ContentProvider to store the JSON responses
    - Create Content Provider contract.
    - Parse the JSON responses using the Gson library
    - Store the fetched data in the ContentProvider.
    - Create a loader to display data on the UI
- An AlarmManager is used to configure periodic updates to the app data

Task 5: Create Widget UI and populate using RemoteViewService

- Create Widget UI
    - Create the layout using Android Studio XML editor
- Create the RemoteViewService
    - Create the JAVA files for Widget Provider
    - Write code for updating the Remote Views

Task 6: Implement Google Play Services

- Add the Admob Ads
  - Configure the Google Ad service in gradle file.
  - Add the AdView in the XML file.
  - Configure the AdRequest builder.
  - Test the Admob Ads.
- Add App Analytics
  - Configure Google Play Services for Analytics in the gradle file.
  - Configure the Google Analytics using the analytics XML file.

Task 7: Testing and Finalization

- Test the app with real data. Use phone and tablets (or the emulator for them).
- Sign the App using a Signing file
  - The Keystore and Keystore credentials should be configured in the gradle file.