

How to Use this Template

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Problem:

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.

Proposed Solution:

Design an app that allows a user to indicate a set of subreddits that they would like to follow and store. (Please make sure that your app only pulls content from SFW, or safe for work, subreddits!) Your app should present them with a post from one of their selected subreddits. They can interact with the post (i.e. view image posts, play video posts, etc) or they can dismiss it to receive another. You should display comments (or a subset), thumbnails, and comment text and links. You should use intents to communicate with the Android apps, components, and services that you don't want to or cannot implement. For instance, to view a link, you could use a WebView or you could send an Intent to the browser.

GitHub Username: kerry

RedditLine

Description

RedditLine is a Reddit client that offers a seamless way to interact with your favourite subreddit posts in a user-friendly way. It allows you to follow subreddits, view posts and comments and much more. The application will be written solely in Java.

Intended User

RedditLine is an application for everyone who socializes, learns and connects within the vast and diverse community of reddit users.

Features

Main features of RedditLine:

- Shows list of all subreddits that a user can follow
- Shows list of followed subreddits
- Swipeable card view for posts
- Filter to select which subreddit to be included in list of posts in swipeable card view (all, followed)
- Comments activity to show list of comments
- Ability to watch videos, images and text in posts

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

Hand-drawn sketch of the Reddit login screen. The screen is titled "Login". Below the title is the word "Reddit". Underneath "Reddit" are two input fields: one for "Username" and one for "Password". At the bottom of the screen is a button labeled "Login".

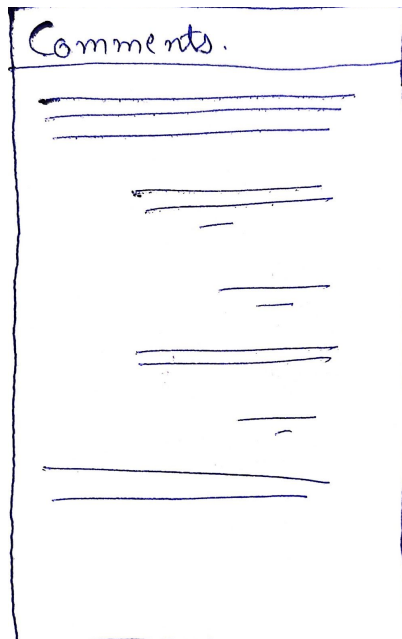
The login screen for Reddit. User can provide their username and password and login to reddit. After that, the authentication token is saved in database and used for API calls.

Screen 2

Hand-drawn sketch of the Reddit post screen. The screen displays a large area for "Image/video." followed by several horizontal lines representing text. At the bottom is a navigation bar with five icons: a left arrow, a right arrow, a plus sign, a heart, and a speech bubble.

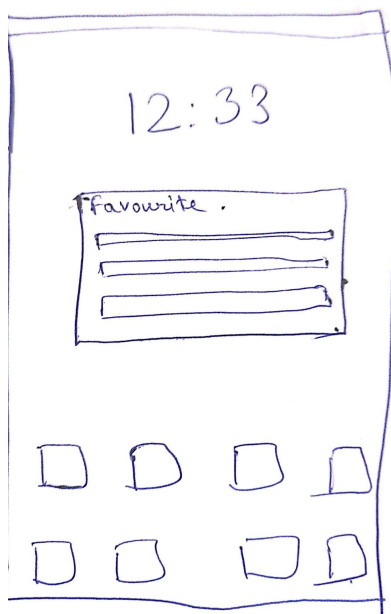
This is the screen to show posts. I have used a new way to scroll through various posts. Unlike the conventional scrolling this will have a swipe left/right feature to go back and forth the posts. Below the posts, we have upvote, downvote, favourite, follow subreddit and comments button.

Screen 3



This will be the comments screen for the posts. All hierarchical comments will be shown here along with user names.

Screen 4



This will be the widget for the application. It will show the latest posts from the user's favourite subreddits. The latest posts will be fetched from the server periodically using WorkManager

Key Considerations

How will your app handle data persistence?

Data persistence will be handled by Room database provided by Google in Android architecture components.

Describe any edge or corner cases in the UX.

As of now, the UI flow is pretty straightforward and linear. If the internet connection is not available, the app will show a set of cached posts without the ability to perform any action on those, for example: upvote/downvote etc.

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

1. Glide v4.9.0 - It is an easy to use library to load images. It also has gif support and subreddit posts will contain a good amount of gifs
2. Retrofit v2.5.0 - To manage network related tasks. Easy to use and I have experience with it.
3. Firebase v16.0.9- For analytics logging and crashlytics
4. AndroidX package v1.0.2- For backward compatibility support
5. Android Architecture Components package v2.0.0(lifecycle)

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

1. Will use firebase crashlytics for crash logging
2. Also firebase analytics to log events.

How you will support accessibility.

1. Will add content description in all static images being used.
2. Will use sp for text sizes to be able to scale up and down text sizes based on user preference

How resources will be stored in the project including colors, strings, and themes.

1. Resources like strings, colors, dimensions, etc will be stored in their respective files in res/values directory. For example: strings.xml, colors.xml, etc

How the application implements one or more of the following SyncAdapter/JobDispatcher or IntentService or AsyncTask for backend communication.

1. The application will implement a WorkManager to periodically pull the data from server to update the android widget for the user.

Next Steps: Required Tasks

Task 1: Project Setup

1. Create new project and add AAC and AndroidX package
2. Create module structure for various screens
3. Create app on Reddit developer to get access to Reddit Login

Task 2: Setup important services

1. Add Retrofit and create network service
2. Use room to create database service
3. Start building the screens

Task 3: Start with Login

1. Create UI for a simple login screen
2. Complete the flow for login via reddit
3. Save the auth token received in room database
4. Create the ability to use that auth token in retrofit api calls

Task 4: Create UI for the main screen to show posts

1. Try to make api calls using the auth token and make models according to the response received
2. Use the models to create view models to show data on view
3. Create card ui and animation for post swiping
4. Create various buttons and make api calls on their clicks

Task 5: Comments screen

1. Create models according to API response for comments
2. Create UI for hierarchical design for comments.