How to Use this Template

1. Create a new document, and copy and paste the text from this template into your new document [Select All → Copy → Paste into new document]
2. Name your document file: “**Capstone_Stage1**”
3. Replace the text in green

GitHub Username: hyouness

Fair Feed Reddit (app name is subject to change given better alternative)

Description

When a reddit user subscribes to a large number of subreddits, s/he often 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.

Fair Feed Reddit handles this issue by providing the option to “show less often” posts from a subreddit. So if a particular subreddit is overflowing the feed; a user can limit the number of posts per day from that subreddit.

Intended User

Reddit users who subscribe to a large number of subreddits and wish to prevent the overflow of their feeds by posts from 1 or more subreddits.

Features

- login/logout reddit user
- display posts from followed subreddits
- search + un/follow subreddits
- “show less often” feature where user can specify number of posts per day from a subreddit.
- bookmark posts for offline viewing

Depending on how quick the above feats are implemented, more features could be added such as viewing and interacting with reddit posts rather than opening the post in a browser.

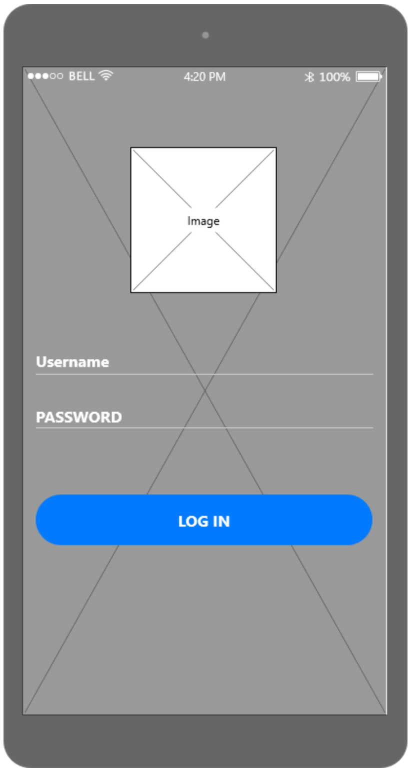
Design Specifications

- App is written solely in the Java Programming Language.
- App includes support for accessibility. That includes content descriptions, navigation using a D-pad, and, if applicable, non-audio versions of audio cues.
- App keeps all strings in a strings.xml file and enables RTL layout switching on all layouts.
- App utilizes stable release versions of all libraries, Gradle, and Android Studio.
- App uses Intent service to update data in app widget
- App uses Retrofit’s call enqueue to load data from reddit api in the background

User Interface Mocks

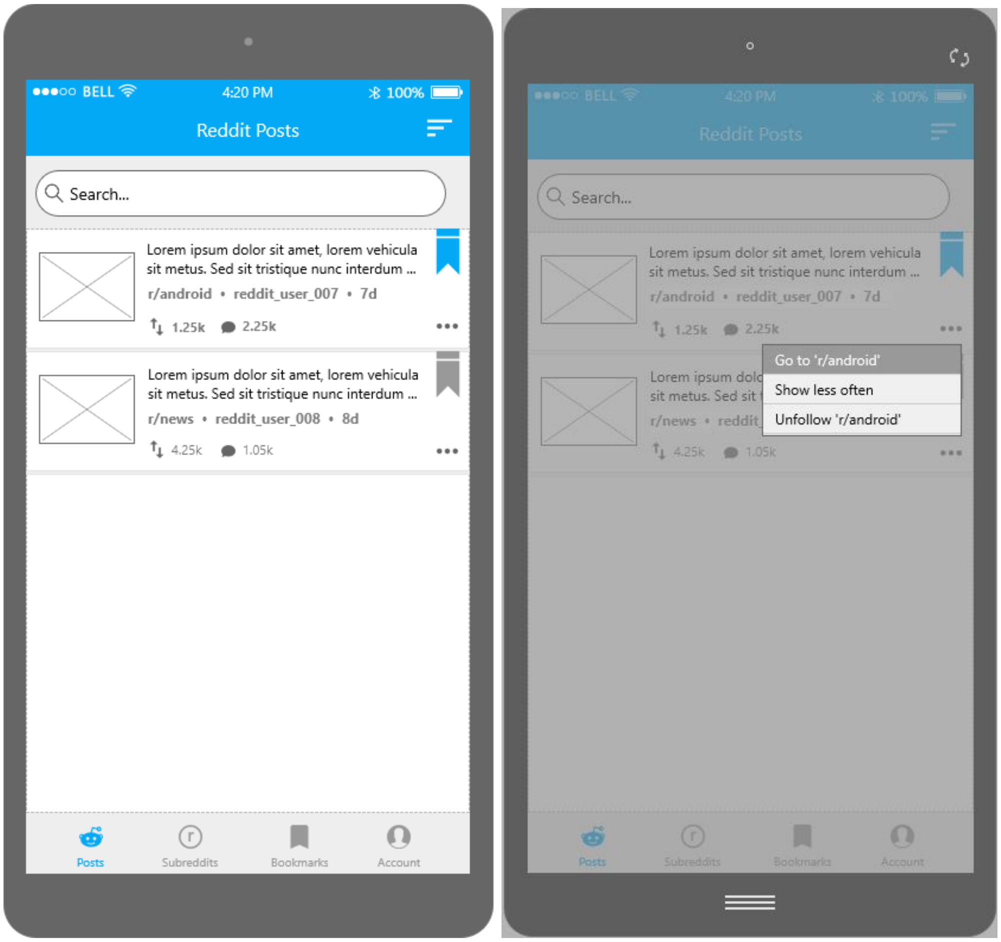
These can be created by hand (take a photo of your drawings and insert them in this flow), or using a program like Google Drawings, www.ninjamock.com, Paper by 53, Photoshop or Balsamiq.

Screen 1



Login Screen for reddit users to login to their accounts.

Screen 2



Lorem ipsum dolor sit amet, lorem vehicula sit metus. Sed sit tristique nunc interdum ...

r/android • reddit_user_007 • 7d

1.25k 2.25k

Lorem ipsum dolor sit amet, lorem vehicula sit metus. Sed sit tristique nunc interdum ...

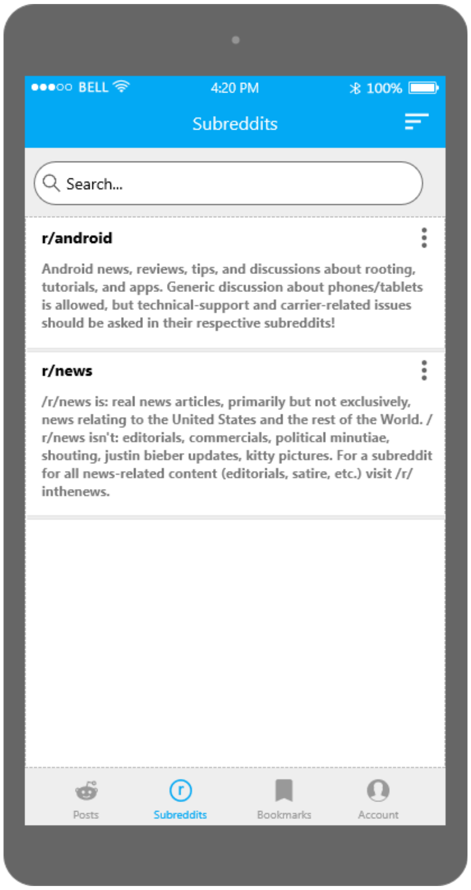
r/news • reddit_user_008 • 8d

4.25k 1.05k

Reddit Posts screen where user can:

- view posts from followed subreddits
- search for subreddits to follow and add their posts to the feed
- bookmark posts for offline viewing
- show less often of a subreddit
- unfollow a subreddit
- open subreddit in browser
- open reddit post in browser

Screen 3



r/android

Android news, reviews, tips, and discussions about rooting, tutorials, and apps. Generic discussion about phones/tablets is allowed, but technical-support and carrier-related issues should be asked in their respective subreddits!

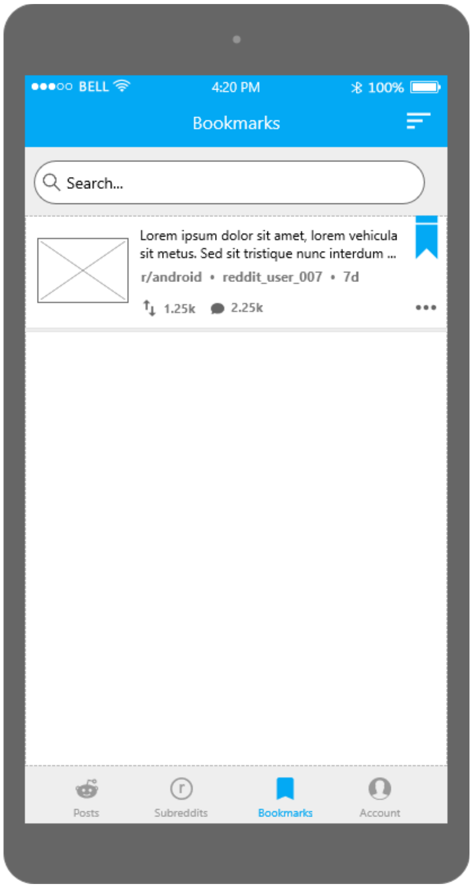
r/news

/r/news is: real news articles, primarily but not exclusively, news relating to the United States and the rest of the World. / r/news isn't: editorials, commercials, political minutiae, shouting, justin bieber updates, kitty pictures. For a subreddit for all news-related content (editorials, satire, etc.) visit /r/ inthenews.

Subreddits screen where user can:

- search for subreddits to un/follow
- view followed subreddits
- show less/more often of a subreddit
- open subreddit in browser

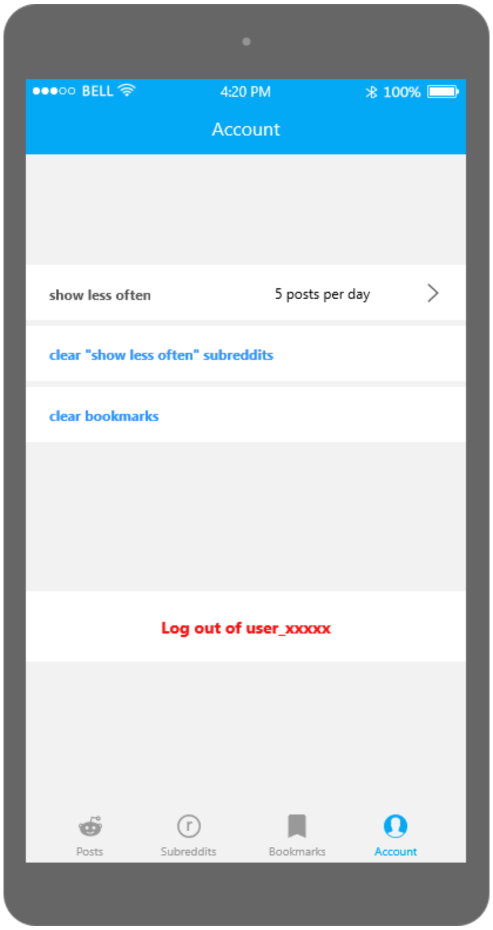
Screen 4



Lorem ipsum dolor sit amet, lorem vehicula sit metus. Sed sit tristique nunc interdum ...

Bookmarks screen where user can view and search through bookmarked posts in offline mode

Screen 5

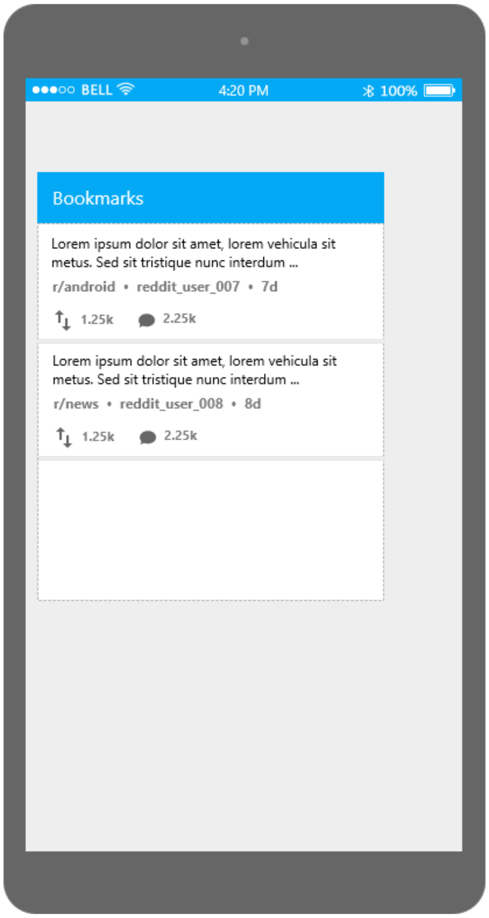


show less often 5 posts per day

Settings screen where user can:

- logout of reddit account
- specify the number of posts per day to show when “show less often” is enabled
- clear bookmarks

Screen 6



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1.25k 2.25k

AppWidget screen which displays bookmarked reddit posts

Key Considerations

How will your app handle data persistence?

App will use room database to save bookmarked reddit posts for offline viewing. Images/Videos will not have offline support.

Describe any edge or corner cases in the UX.

I can’t think of one corner case in particular; but should I complete the described features above and have time to implement an activity to show the details of a reddit post inside the app; displaying nested comments and different media types is likely to present corner cases.

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

- **Picasso** (**v**2.71828) will be used for image loading and caching
- **Retrofit** (**v**2.4.0) will be used for downloading reddit posts.
- **Room** (**v**2.2.2) will be used to save bookmarked reddit posts for offline viewing
- **Butterknife** (**v**10.2.0) will be used for binding views and other resources without the need for using methods like findViewById.
- **Material Components for Android** (**v**1.0.0) to materialize the app.
- **Google Service Plugin (v**4.3.3**)** to process google-service.json for Firebase Crashlytics
- **Firebase Analytics (v**17.2.1**)** to monitor app use and user engagement
- **Firebase Crashlytics (v**2.10.1**)** to monitor app crashes

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

- Firebase Crashlytics will be used to monitor app crashes.
- Firebase Analytics will be used to monitor app use and user engagement.

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

- Create project and share it with Github
- Configure gradle and libraries

Task 2: Implement UI for Each Activity and Fragment

- Build UI for LoginActivity
- Build UI for MainActivity
- Build UI for RedditPostsFragment
- Build UI for SubredditsFragment
- Build UI for BookmarksFragment
- Build UI for SettingsFragment

Task 3: Setting up Reddit Api

- Register app for Reddit Api service
- Manage user login to acquire access token for reddit api querying
- Create RetrofitClient to access reddit posts via api

Task 4: Implementing MVVM architecture

- Create data models for reddit posts and subreddits
- Create Room db for bookmarked reddit posts
- Create ViewModel to manage data access from database and network

Task 5: Integrate Firebase Crashlytics

- Create firebase project for app
- Configure libraries and add google-services.json file
- Enable Crash Reporting

Task 6: Polish UI and refactor code before release

Add as many tasks as you need to complete your app.

Submission Instructions

- After you've completed all the sections, download this document as a PDF [File → Download as PDF]
  - Make sure the PDF is named "**Capstone_Stage1.pdf**"
- Submit the PDF as a zip or in a GitHub project repo using the project submission portal

If using GitHub:

- Create a new GitHub repo for the capstone. Name it "**Capstone Project**"
- Add this document to your repo. Make sure it's named "**Capstone_Stage1.pdf**"