Capstone Stage 1 - Design and Planning

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Reddit roulette

Description

There are lots of Reddit apps, and I didn't want to make a clone of them. Sometimes you might just want to read something interesting, and don't care what. This app is for that. You will let it know your interests, and it will present you with some random posts connected to them. You can read or skip them.

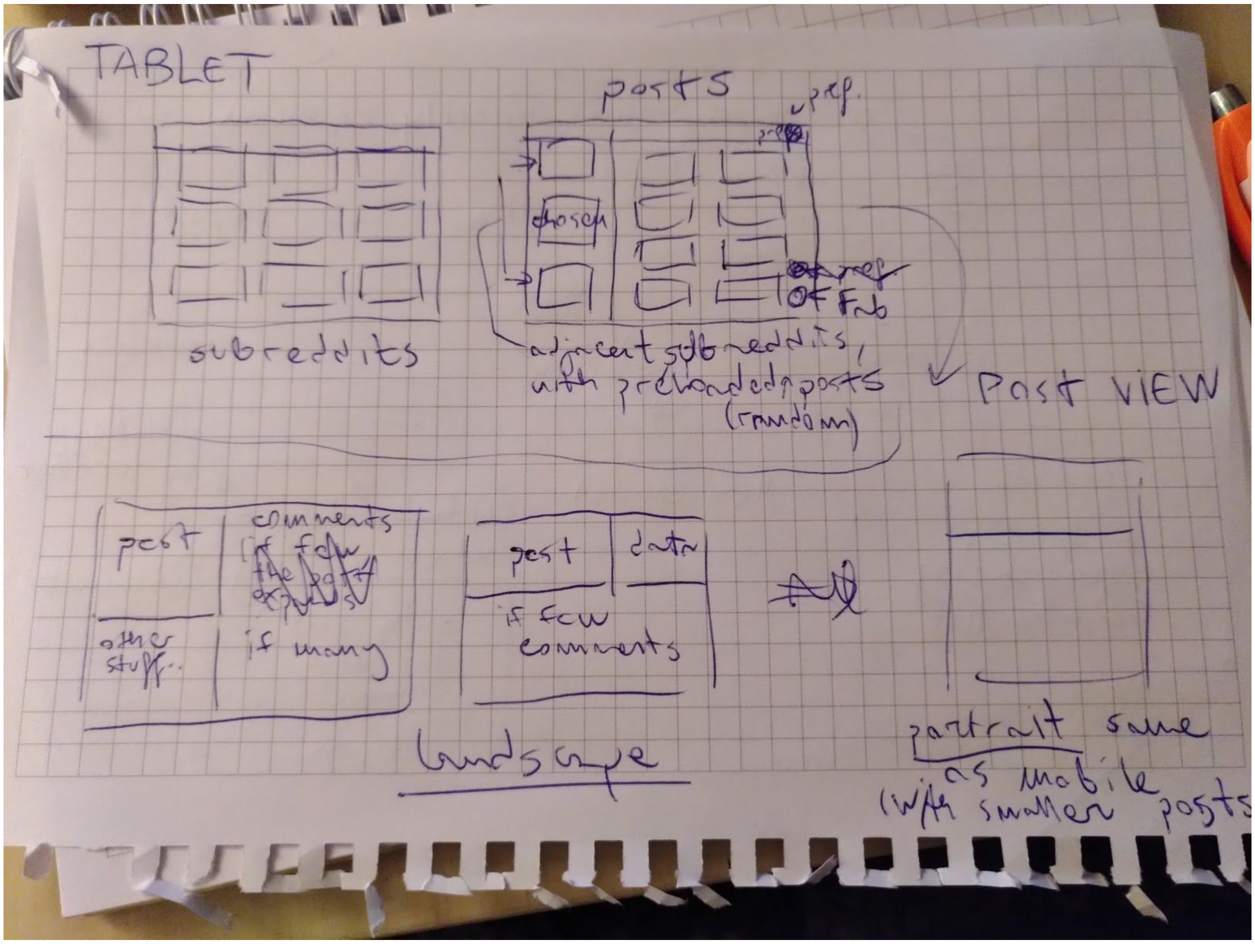
Intended User

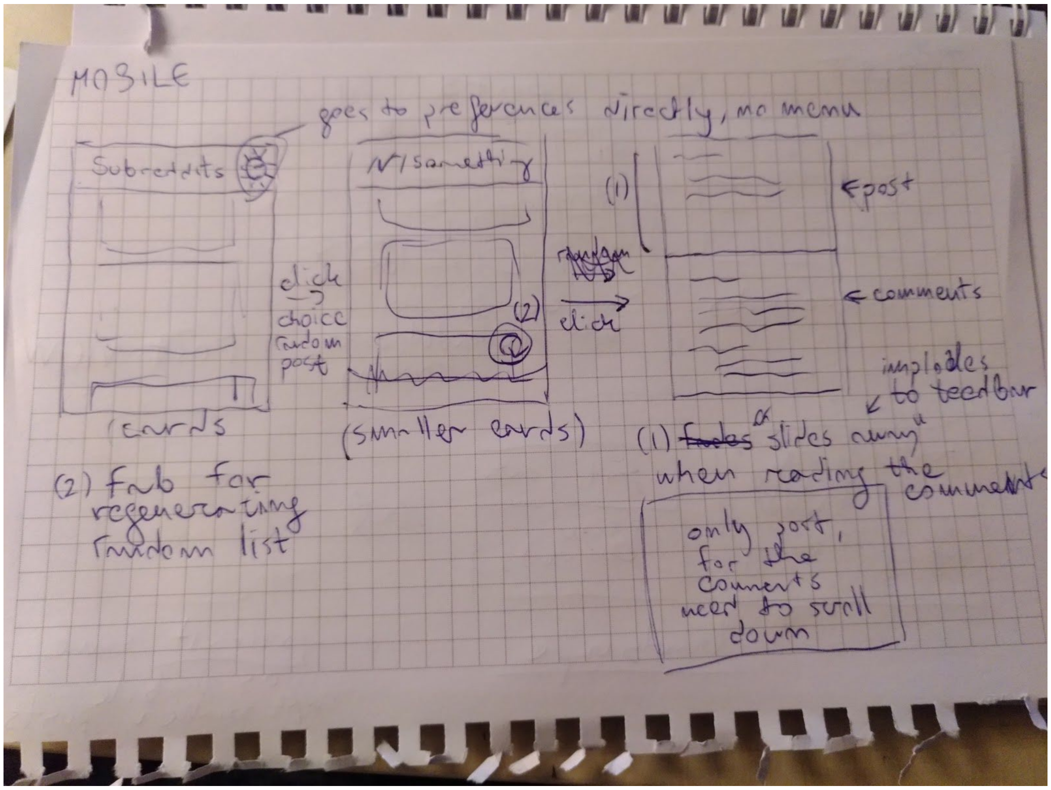
People interested in reading reddit posts, but with a broader range of interests than just a couple of subreddits.

Features

- Select subreddits
- Go through (random) posts from that subreddit
- Select interests/keywords
- Login to the account
- handle favorites
- Material design
- Dark/Light themes
- Reddit-like interface
- Offline posts reading
- Readonly app
- Widget with selected subreddits
- Free (with Ads) and paid (without ads) flavors

User Interface Mocks





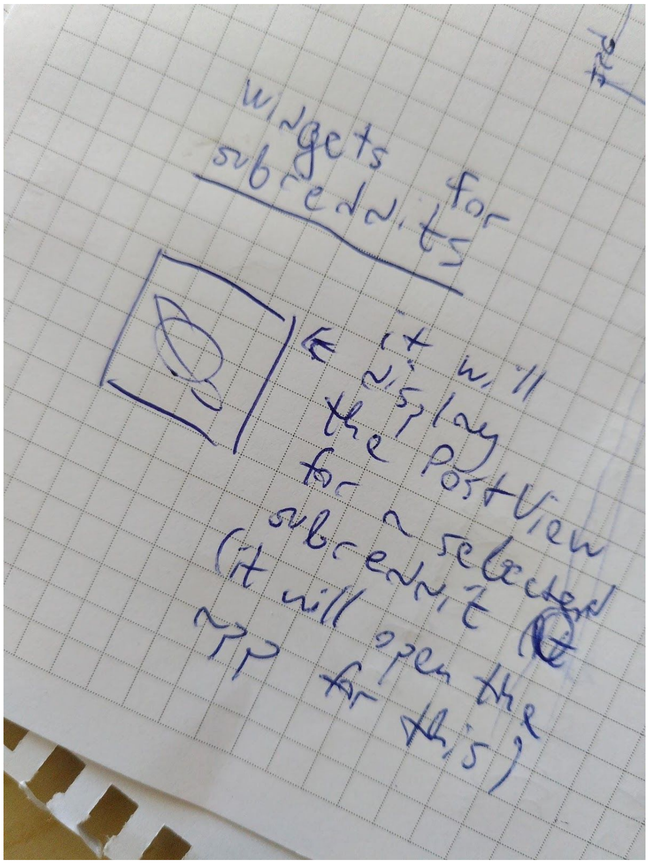
goes to preferences directly, no menu

(2) Fab for regenerating random list

(1) ~~fades~~ or "slides away" when reading the comments

implodes to toolbar

only post, for the comments need to scroll down



widgets for subreddits

← it will display the PostView for a selected subreddit (it will open the ??? for this)

The widget will be a simple square with the subreddit logo, that will redirect to the view with the posts generated for that subreddit.

Key Considerations

How will your app handle data persistence?

Favorite subreddits in the sharedpreferences, while saved (cached) posts into a db.

Describe any edge or corner cases in the UX.

Comments under the posts might be complicated to implement - I probably will set a depth maximum. One surface will have a comment + some subcomments, with a “load more” part. Also, there might be some problems with the tablet landscape format, with keeping the post to the left and the comment to the rights. I might just add more details under the post.

A JobService will check whether new comments were posted every 5 minutes (or with time configurable in the preferences), another JobService will preload in the case of the PostViews on a table (when there are two hidden tabs).
All the network requests will use AsyncTasks

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

Reasoning	Library name	Version
Lifecycle/UI	Jetpack (AppCompat, RecyclerView..)	1.1
Thumbnails loading/caching	Picasso	2.71828
Network requests	Okhttp	4.4
SQLite DB persistence	Room (+ Annotation library)	1.1
field/method binding in the UI	Butterknife	10.2
Json handling	Gson	2.8
Test running	JUnit	5
UI testing	Espresso	3.2.0
Functional testing	Robolectric	4.3

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

Firebase Analytics (https://firebase.google.com/docs/analytics) and Crashlytics (https://firebase.google.com/docs/crashlytics) will be implemented.

Next Steps: Required Tasks

Task 1: Project Setup

- Configure libraries and build
- Configure for free and paid versions (with-ad and ad-free)
- Plan the models to include
- Setup data collections

Task 2: Implement Layouts

- First, fragment layouts.
- Second, trying to individuate pieces of the layout that can be reused
- Setup adapters for recyclerviews
- Attach all together into activities

Task 3: Implement UI for Each Activity and Fragment

- MainFragment - subreddits view (and related activity)
- SubredditFragment - posts view (and related activity)
- Make it one Activity for tablets
- Write tests
- PostFragment (and related activity)
- CommentFragment (and related activity)
- Make it one activity for tablets
- Write tests
- PreferenceActivity for selecting more precise interests or change subreddits
- Write tests

Task 4: Implement logic for random selection

- Handle interests and create the the algorithm to generate the post selection

Task 5: Add flavors and ads and polishing

- Improve eventual performance holes
- Add ads in the free version
- Remove imports/deprecations.
- Move strings to the values folder

Technical requirements

- App keeps all strings in a strings.xml file and enables RTL layout switching on all layouts.
- The Java programming language will be used to implement the whole app and eventual connected libraries.
- App includes support for accessibility. That includes content descriptions, navigation using a D-pad