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Reader for Reddit

Description

'Reader for Reddit' keeps you up-to-date with a collection of your favourite subreddits. Select up to 15 favourite subreddits to track, and 'Reader for Reddit' will update and store posts for you to browse through the day, including when offline.

The app widget shows the most and least active of your selected subreddits, allowing you to stay up-to-date with all your selected subreddits.

Intended User

Intended users are casual reddit readers, who occasionally read over a couple favourite subreddits. Intended users would spend maybe 5 to 10 minutes at a time reading over a few posts in their selected subreddits while waiting for a bus, train, or in downtime between other tasks.

Features

App features:

- Store user-configurable list of up to 5 favourite subreddits
- Periodically poll reddit for top posts on subreddit list
- Display card for all subreddits on main screen with basic info
 - Subreddit name
 - Current highest rated post -> title, poster, score, image thumbnail
- View activity with top 5 posts in selected subreddit, with more detail per post
- View activity with full info for selected post, and comments
- App periodically polls reddit for updated info on selected subreddit

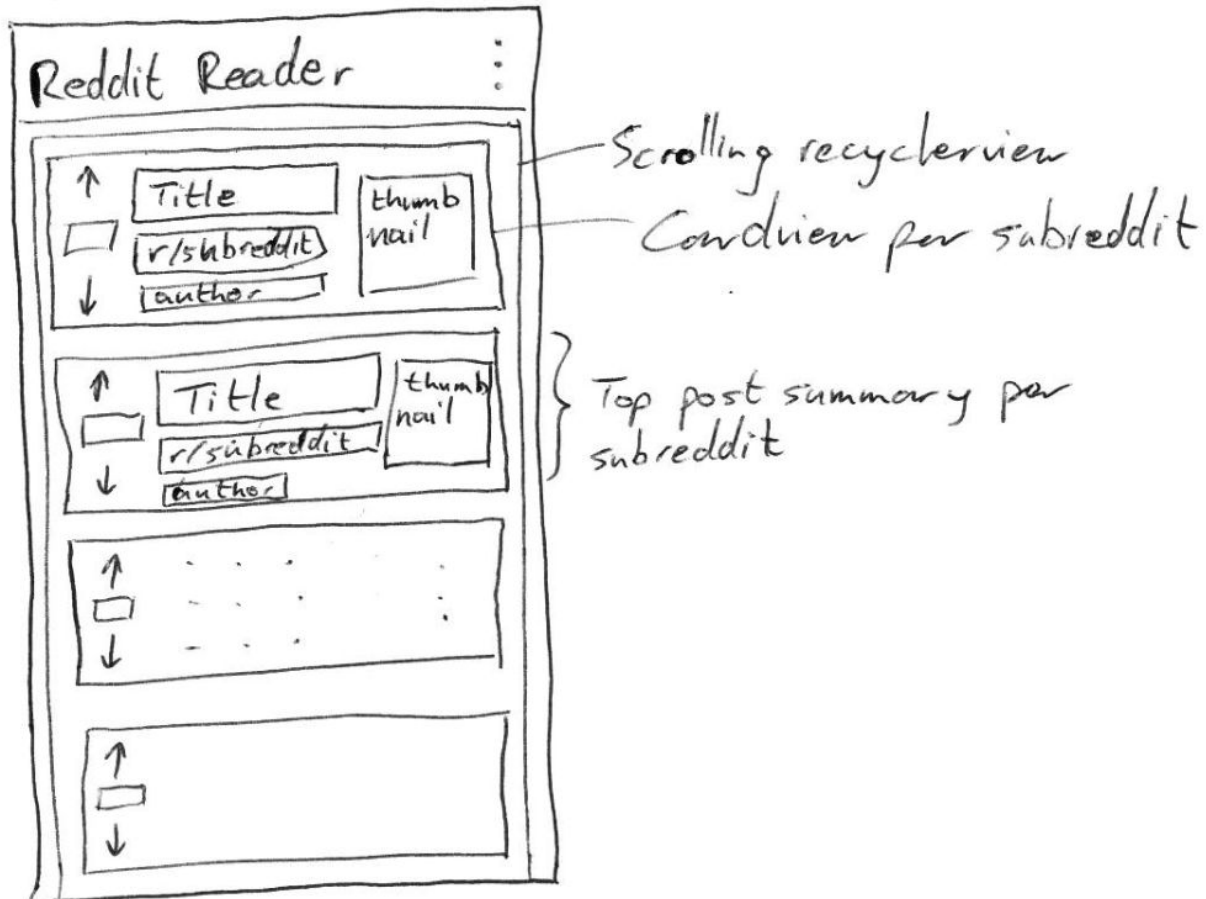
Widget features:

- Displays two most viewed subreddits, and 2 least viewed subreddits (from within the app), and top rated post for each subreddit.

User Interface Mocks

Screen 1 - Front page / Overview

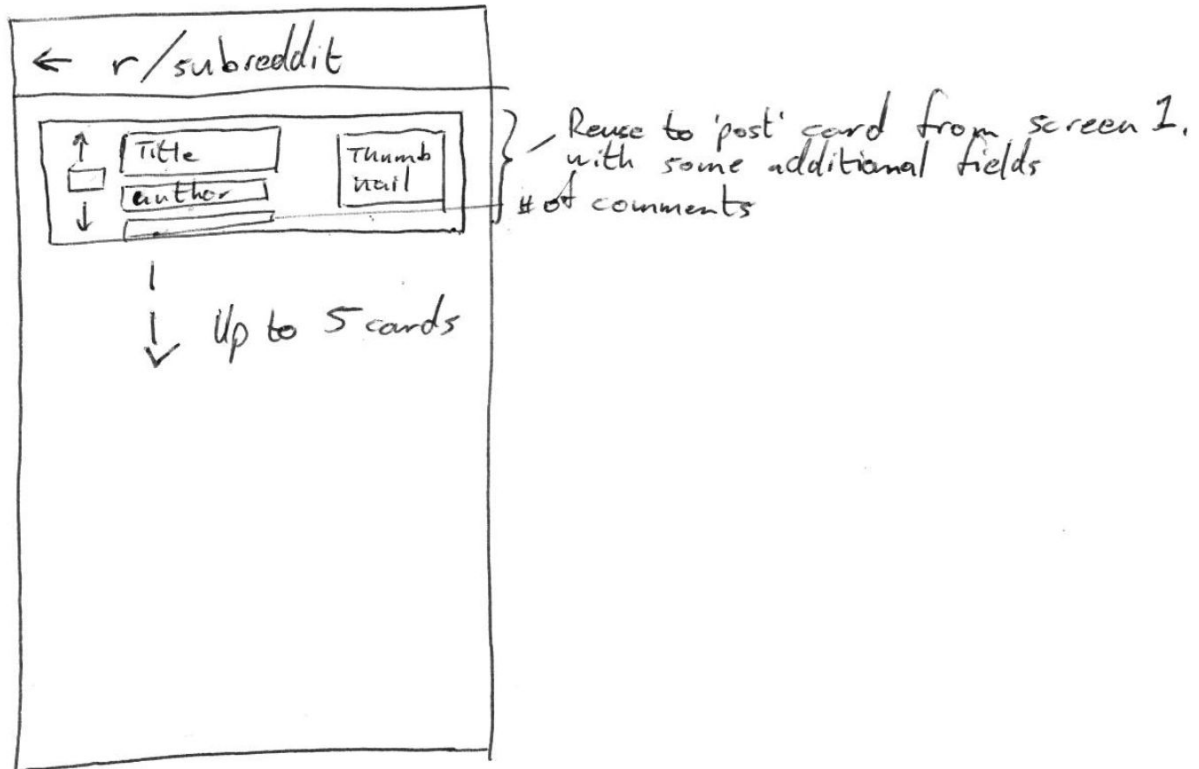
① Screen 1 → "Front page"



The first screen on entering the app - top post from selected subreddits are displayed as cards in a scrolling recyclerView. Pertinent information about each post is displayed.

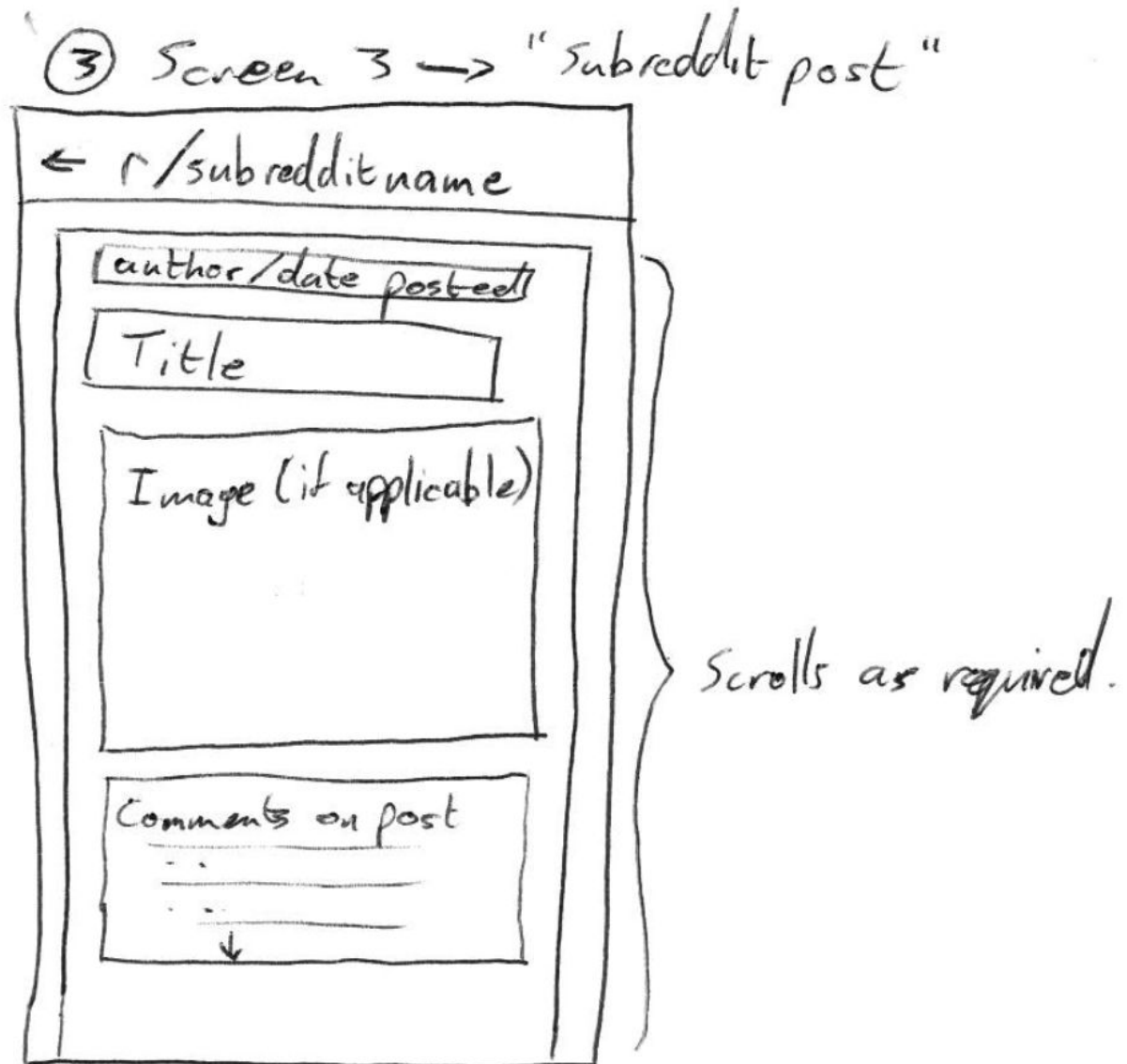
Screen 2 - Selected subreddit page

② Screen 2 → "Subreddit page"



If a user taps on any subreddit card in screen 1, the subreddit is loaded with additional posts, in a similar card-based format. Only a few cards displayed, with possibility to scroll up/down list. Return to screen 1 when selecting Back button.

Screen 3 - Selected subreddit post



If a user clicks on a specific post in the subreddit view, the post is displayed in much greater detail, with the comments available to read as well. Returns to screen 2 when Back selected.

Screen 4 - User selects subreddits

④ Screen 4 → "Select Subreddits"

← Select Subreddits

Search bar (magnifying glass icon)

r/sub 1 ⊗

r/sub 2 ⊗

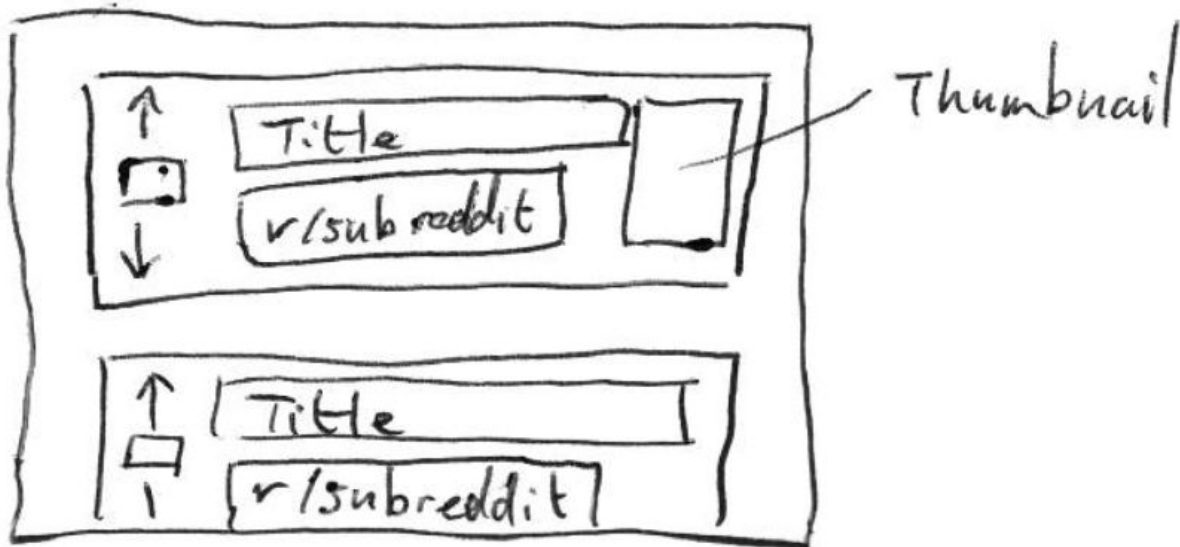
⋮

r/sub-n ⊗

Accessed from the main screen, the user is able to select subreddits for the app, using the text input search bar. The current selection of subreddits are displayed, and it is possible to remove a subreddit from the list.

Screen 5 - Widget Layout

⑤ Widget



The widget will display a pared-down view of the cards in the main screen. The list of cards can be scrolled up/down.

Key Considerations

How will your app handle data persistence?

The Room persistence library will be used to persist top posts from selected subreddits from polling until viewed by user.

Selected subreddits will be stored in SharedPreferences

Describe any edge or corner cases in the UX.

Changes in orientation should be seamless

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

Java reddit API wrapper (<https://github.com/mattbdean/JRAW>) - Library provides a wrapper for the Reddit API, offering a simple and convenient tool for authenticating and accessing/presenting data.

Room - persistence library wrapping sqlite, providing persistence with an interface I'm far more comfortable using (DAO interface). Store subreddit data from each periodic polling until the point it is used, including when offline

Picasso - load and cache images on demand. Images will only be fetched at display-time, to minimise data charges from polling

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

Describe which Services you will use and how.

From my understanding of the Reddit terms of use, monetization requires permission from Reddit (including from ads), so not going to implement that.

Next Steps: Required Tasks

Task 1: Project Setup

- Create new project in Android Studio
- Configure basic libraries required to get an app running.

Task 2: Implement basic data structures, reddit API query

- Get initial authentication and subreddit query working (with hardcoded credentials, subreddits)
- Implement required domain objects and Room methods to store retrieved subreddit info.
- Implement classes and methods to query to required information from Room
- Iterate reddit API query to reduce number of network calls made, potentially to the point of only a single query being made each time
(<https://mattbdean.gitbooks.io/jraw/pagination.html>)

Task 3: Implement UI for Main Activity, UI for a selected subreddit post

- Build UI for MainActivity
 - Activity and fragment
 - CardView with info for each subreddit selected
 - Images for headline posts loaded via picasso, stored on device
- Build UI for viewing a selected subreddit
 - Activity and fragment

- Returns to MainActivity
 - There's a lot of information on this page to display, so ensure it conveys info without getting 'too busy'
- Build UI for viewing a selected post in subreddit
 - Activity and fragment
 - Returns to 'Selected subreddit'
 - Outsource things like playing video/audio to youtube / media player / browser via broadcast intent

Task 4: User preferences - select the subreddits to follow

- Build UI for selecting subreddits user wants to follow.
 - Accessible through options in MainActivity
 - Returns to MainActivity, triggering a poll if new subreddits added
 - Selected subreddits stored in sharedPreferences

Task 4: Error cases

- Handle issues like no network connection
- Rotation from portrait to landscape and back
- No subreddit by specified name exists

Task 5: Tablet layout

- Implement master-detail layout for tablet devices (in landscape only)

Task 6: Implement widget

- Implement widget to display title(s) of subreddit posts

Submission Instructions

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- Add this document to your repo. Make sure it's named “**Capstone_Stage1.pdf**”