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App for Reddit

Description

Keep in touch with your favorite subreddits. Select subreddits to follow and the app will serve you a randomly picked recent post. Swipe to see another post or tap it to interact with it (e.g. play video/open image/leave comment).
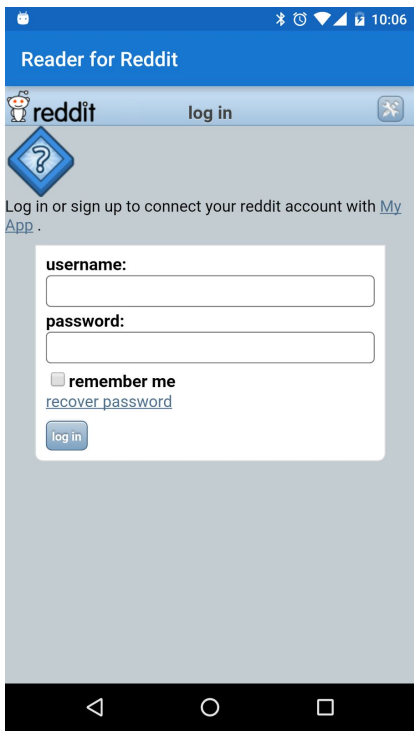
Intended User

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.
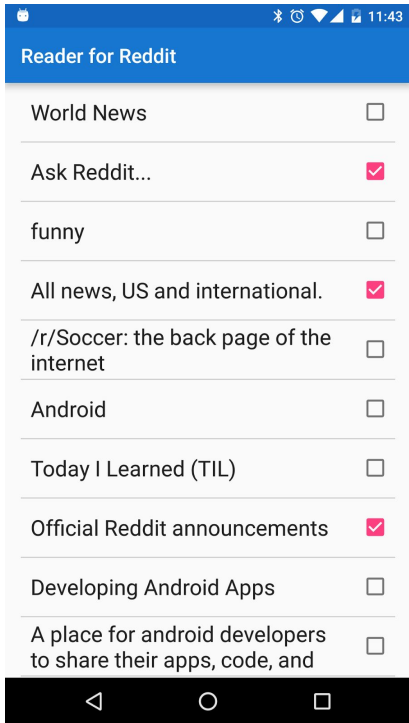
Features

- Connects to Reddit
- Saves user information and preferences
- Allows user to interact with Reddit content (e.g. upvote a post, submit comment, etc.)
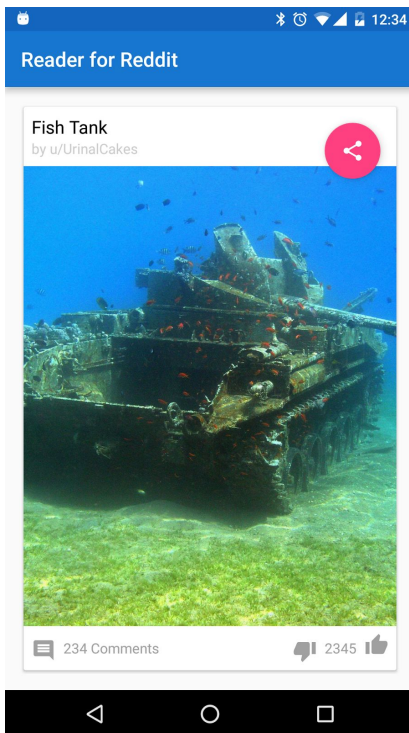- Provides home screen widget

User Interface Mocks

Reddit Login

	The Reddit Login screen will allow user to enter their Reddit user/password in order to authorize the app to use Reddit APIs

Subreddits List

Reader for Reddit ⏱ ⚡ 11:43 World News ☐ Ask Reddit... ☑ funny ☐ All news, US and international. ☑ /r/Soccer: the back page of the internet ☐ Android ☐ Today I Learned (TIL) ☐ Official Reddit announcements ☑ Developing Android Apps ☐ A place for android developers to share their apps, code, and ◁ ○ ☐	The Subreddits List screen will allow user to select which subreddits should be monitored by the app

Reddit Post

|	
Reader for Reddit ⏱ ⚡ 12:34 Fish Tank by u/UrinalCakes ↗ [image] 💬 234 Comments 👎 2345 👍	The Reddit Post screen will present a random post (from the subscribed subreddits). User will be able to perform the following activities: 1. Swipe to dismiss the post (to see another one) 2. Tap comments to go to Comments List screen 3. Upvote/Downvote the post by tapping thumbs up/down icons 4. Share the post

Widget
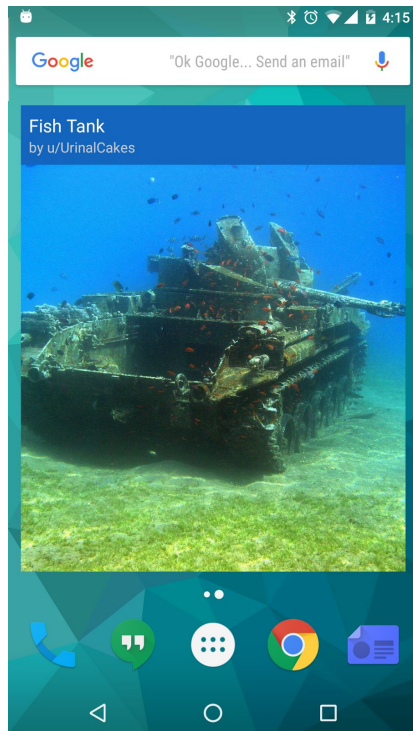
The app will provide a widget which will present a random post (from the subscribed subreddits). Tapping on the widget will launch the app

Comments
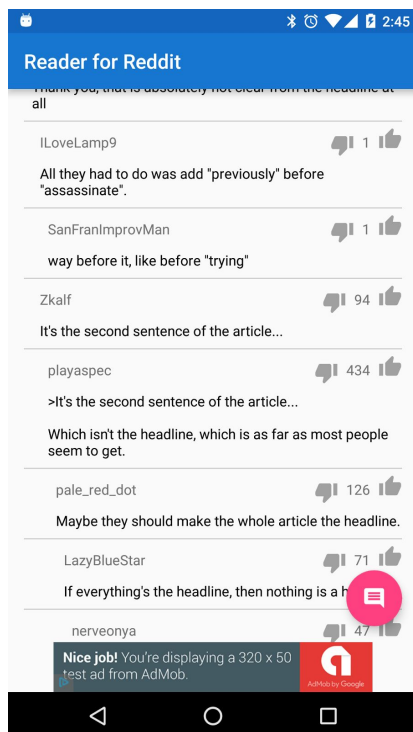
The Comments screen will present a list of comments for selected post and allow user to:
1. Submit a new comment
2. Reply on a comment
3. Upvote/Downvote a comment

Reddit Posts List (tablet only)
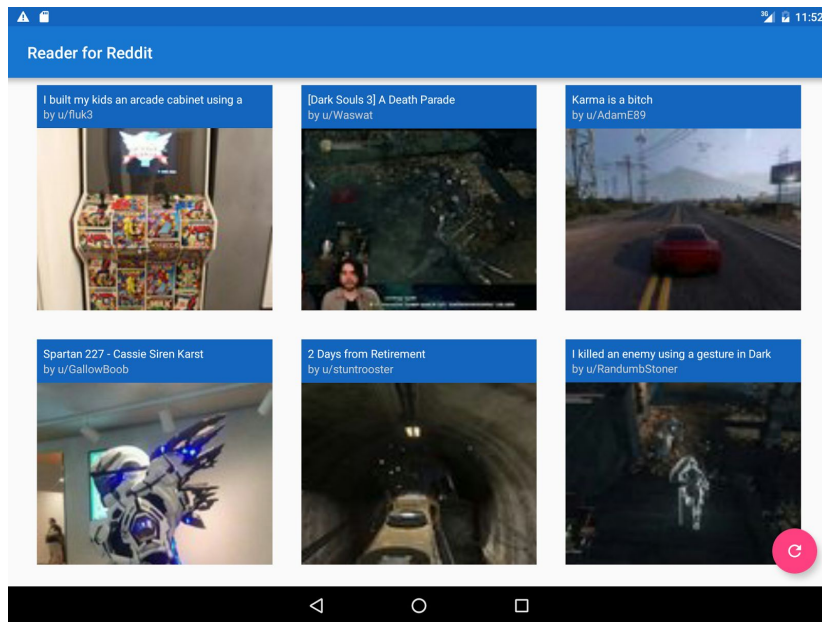
When launched on tablets, the app will present a list of random posts and allow user to select one of them. User will also be able to load a different set of posts

Reddit Posts List - Post Selected (tablet only)

User will be able to interact with selected post similar to Reddit Post screen

Key Considerations
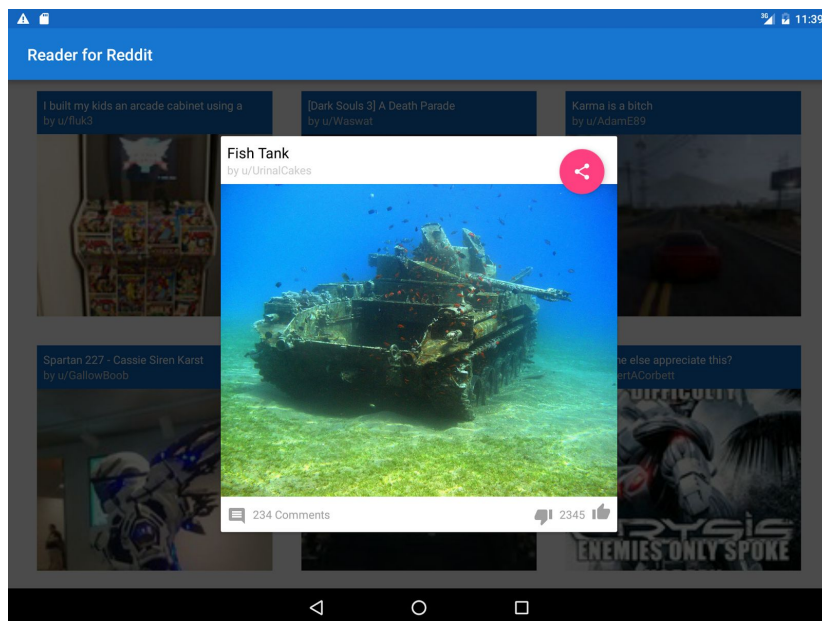
How will your app handle data persistence?

User related info (e.g. reddit user name, Oauth token, etc.) will be stored in shared preferences
Monitored subreddits and posts will be stored in a content provider

Describe any corner cases in the UX.

1. Until user has not performed Reddit login application will not be able to present any reddit posts. This "state" must also be handled by the widget (user may add it to the home screen before the app is launched for the first time)
2. Application (and widget) can only present posts if user selected any subreddits to follow. This condition needs to be addressed appropriately

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

1. JRAW (https://github.com/thatJavaNerd/JRAW) to connect to Reddit APIs.
2. Picasso to handle image loading
3. Various Android Design libraries to build the UI
4. Google Play Services (ads) to serve ads
5. Google Analytics to collect usage metrics

Next Steps: Required Tasks

This is the section where you can take the main features of your app (declared above) and decompose them into tangible technical tasks that you can complete incrementally until you have a finished app.

Task 1: Project Setup

1. Start a new project targeting phones and tablets
2. Add latest versions of required libraries to build.gradle
3. Add signing config. Follow instruction in http://developer.android.com/tools/publishing/app-signing.html#sign-auto
4. Modify release build to use newly created signing config

Task 2: Reddit login

The JRAW library provides an example how to authenticate user. This can be used as blueprint for our login activity. Upon successful login, need to store the authentication token for future use.

Task 3: Subreddits List

1. Create loader that retrieves list of subreddits that user is subscribed to
2. Setup list view to present the subreddits list and allow user to select which subreddits to monitor.
3. Implement content provider to store selected subreddits
4. Store user selections in the content provider

Task 4: Sync Adaptor

1. Implement content provider to store list of posts
2. Implement sync adaptor to populate the content provider.
3. Iterate over list of subreddits (from the content provider), retrieve latest post and store them in the content provider
4. Implement clean-up of older posts to keep only the relevant posts in the content provider

Task 5: Main Activity

1. Auto-launch of Reddit Login (when shared preferences are empty).
2. Add token refresh task (to ensure app can continue accessing Reddit APIs) and auto-launch Reddit Login if token cannot be refreshed.
3. Create a loader to select random post from the content provider and retrieve the post content using Reddit API
4. Add post presentation using data from the loader.
5. Add handling of swipe gesture and replace post with a new one.
6. Create async tasks for user actions (e.g. upvote) and wire UI controls to tasks
7. Identify whether post contains video content and either play the video "inline" or launch browser
8. Add sharing function
9. Add menu item to manually launch Subreddits List activity

Task 6: Main Activity (tablet)

1. Modify loader that selects a random post to return list of random posts
2. Implement tablet layout.
3. Create refresh task and wire it to the UI

Task 7: Comments

1. Add launch of Comments activity from Main activity
2. Create Comments activity and present comments
3. Add "swipe to refresh" functionality
4. Implement parsing of comment content and identify "special" content such as hyperlinks. Present "special" content accordingly
5. Create async tasks for user actions (e.g. submit new comment) and wire UI controls to tasks

Task 8: Widget

1. Create widget provider
2. Implement widget as per UI mockups with dummy data
3. Implement widget service and update the widget UI with data
4. Modify main activity to receive post ID and show the corresponding post
5. Modify tablet version of the main activity to ensure the received post ID is included in the list and automatically selected
6. Update widget to pass the post ID as intent extra when launching the app