Mobile Application Development

Capstone project "TubeLess"

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Inhoud

Think

My idea is called "TubeLess". An app which allows you to add RSS feeds of your favourite YouTube channels so you can follow their latest videos without a YouTube account.

This idea came from a recent project where I got into the use of RSS feeds to follow, for example; tech posts, GitHub commits and YouTube channels. It was so simple to setup and required no account anywhere. You simply grab the URL of the feed and it will show the latest posts and keeps track of the ones you already read. In the case of videos on YouTube channels, the URL of the video within the feed can be used to directly stream it to your favourite video player, no browser nor account required.

Now you might be wondering what's the point of this when you could just use your browser. First of all, it is distraction free. There is no temptation to view related videos on YouTube and get sidetracked. It's also fast as it only needs a URL with an XML file which is obtained and parsed in no time. Lastly, you don't need a YouTube/Google account anymore to follow your favourite channels. All you have to do is add the URL of the channel feed to your configuration and it will be obtained.

So my idea is to build this into an app with the same features. I will describe these in the next chapter.

Make

First of all I want to build a home screen which shows the videos of all your followed/added channels in one overview. Starting from the top, the first component will be a top bar with a button to open a side menu. The side menu will be a sheet according to the material design components, that will show a list of all the channels that are followed. These are listed in a RecyclerView with a line separator. Pressing on a channel in this menu will show the latest videos from that channel.

On the home screen itself the latest videos are on top and it will also be listed similarly to the menu, but I will use card components to show the videos with a thumbnail image. This way, it will feel familiar to the YouTube app. On the lower right will be a floating action button with a plus sign that will be used to redirect to a screen to add a new channel.

This screen will contain a text field to put in a channel name. Under this field will be a button to save the channel, after which there will be a search process. This process consists of finding a channel ID with the given name and then using this ID to obtain the URL. If this fails, a snackbar will be shown to the user to try it again.

Having added this channel, the menu and video overview will be updated with the new information obtained from this feed. To parse this information, I will need to implement an XML parser, which is going to be a new skill to learn outside the scope of the competency level. The URLs themselves will be saved in a room database, as was learned in the course.

The last feature is to be able to click on a video in the overview and play it within the app. This will open a separate screen which will obtain the video URL from the parsed XML data and play it embedded within the app.

Design

Below is a link to an interactive mockup made in Balsamiq. This gives a general idea of how I intend to design and build the app and what components I will use.

https://balsamiq.cloud/s23hbfl/pogjecl/r2278?f=N4IgUiBcAMA0IDkpxAYWfAMhkAhHAsjgFpQCM8A0lANoC6AvkA%3D%3D