GitHub Username: mostafayahia

Thank You

Description

The purpose of this app is watching embedded youtube videos for the songs from “**Thank You Allah**” English album for **Maher Zain** singer. The embedded youtube videos enable the user to turn the captions on and this will be helpful for Non Native English Speakers.

The videos for the album will be fetched from youtube api:
https://www.googleapis.com/youtube/v3/playlistItems?part=snippet&maxResults=50&playlistId=PLoagsPg26SY7YdytkX5rJhX3aFmbvaZRM&key=API_KEY

App will be written solely in the Java Programming Language.

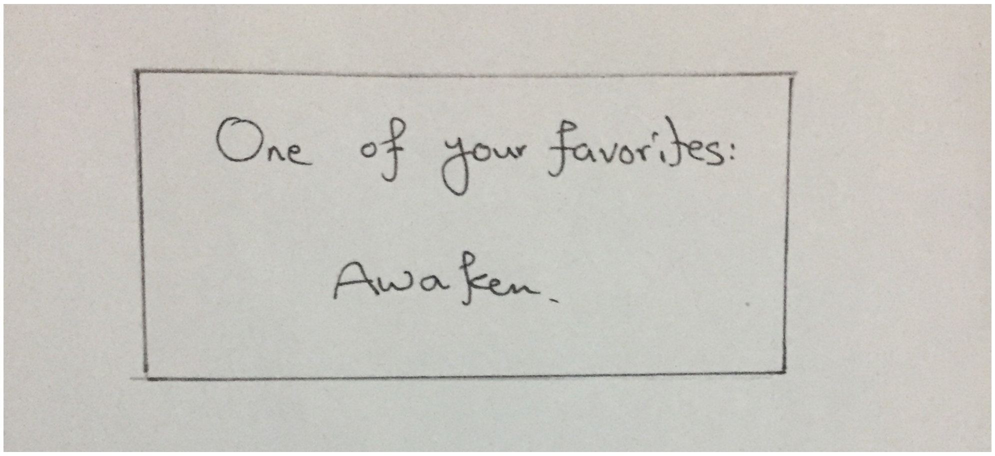
Intended User

The app should target the users who like “**Thank You Allah**” album for **Maher Zain** including Non Native English Speakers.

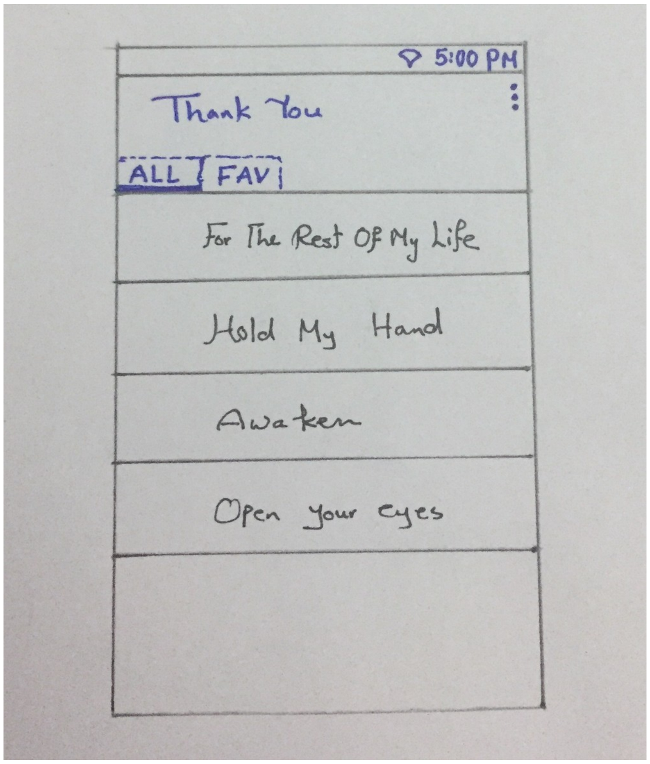
Features

- Display embedded youtube videos for songs.
- The user can add any song to his favorites.
- After the video reaches to its end, It plays the next video in the list automatically.
- User can share the youtube link for the current watching video.

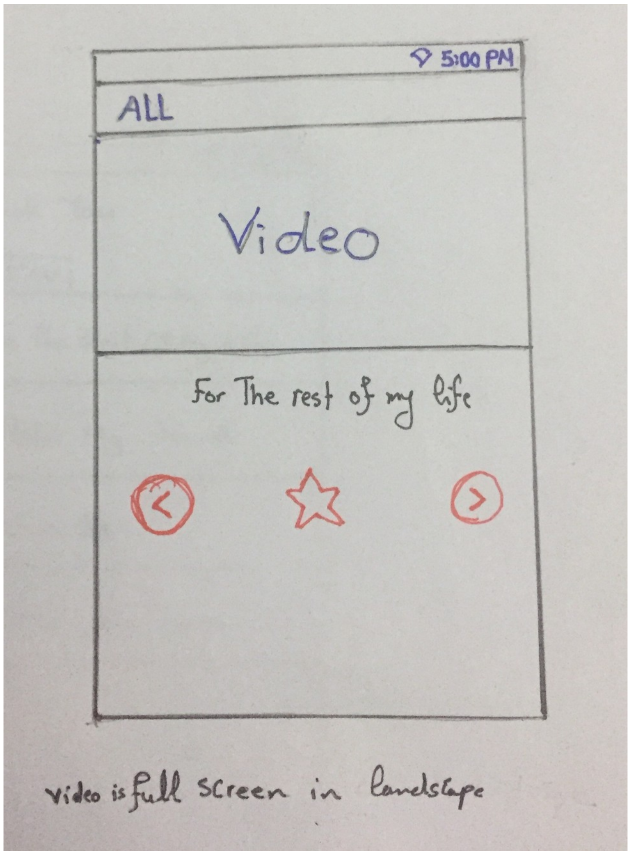
User Interface Mocks



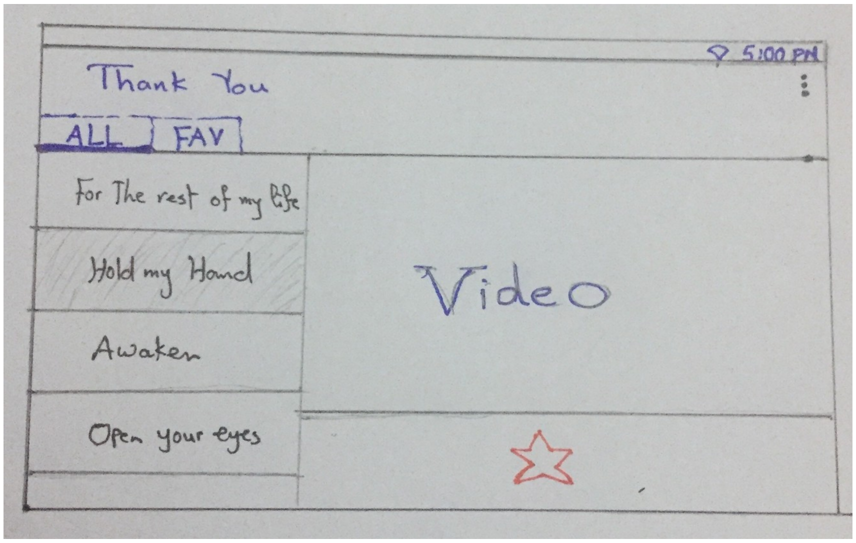
widget



phone_main_activity



phone_detail_activity



tablet

Key Considerations

How will your app handle data persistence?

I’ll build a Content Provider to store the favorite songs of the user locally using SQLite database but when the user chooses to display **All** songs related to the album, I’ll use AsyncTask to retrieve theses songs using youtube api:
https://www.googleapis.com/youtube/v3/playlistItems?part=snippet&maxResults=50&playlistId=PLoagsPg26SY7YdytkX5rJhX3aFmbvaZRM&key=API_KEY

Describe any edge or corner cases in the UX.

In case of phone mobile, If the user is in the detail activity and rotate the screen, he/she will get full screen video. The video will be stopped and the resources will be released if the video is no longer visible

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

YouTubeAndroidPlayerApi-1.2.2 (you can get it from https://developers.google.com/youtube/):
used to display embedded youtube videos in the app.
Picasso-2.5.2:
used to display videos’ thumbnails in the RecyclerView.
Android-support-design-26.1.0:
used for FloatingActionButton, AppBarLayout, etc.
Android-support-recyclerview-v7-26.1.0:
used to enable us to use RecyclerView for low api levels of android devices.
Play-services-ads:15.0.1:
used to display ads in the app.
Play-services-analytics:15.0.2:
used to get analytics about screens in the app.
Timber-4.7.0:
used to make logging with easier way (without creating tag constant for each class).

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

Google Analytics : used to track Screen Views, Avg session duration and new sessions.
Google Mobile Ads: used to display ads at the bottom of MainActivity so we need to make necessary changes in Manifest xml file, layout and the Java code itself.

Required Tasks

Task 1: Project Setup

A - we need to add **YouTubeAndroidPlayerApi.jar** library (you can get it from https://developers.google.com/youtube/) in the app/libs directory, then add the following dependency in the build.gradle file (exists in the app level directory):
implementation files('libs/YouTubeAndroidPlayerApi.jar')

B **-** we also need to add the following dependencies for Google Analytics and Google Mobile Ads:
implementation com.google.android.gms:play-services-ads:15.0.1
implementation com.google.android.gms:play-services-analytics:15.0.2

Task 2: Implement UI for Each Activity and Fragment

- Build UI for MainActivity (that has app bar and tabs for navigation between all songs and favorites).
- Build UI for SongListFragment.
- Build UI for SongDetailFragment.
- Buid UI for SongDetailActivity.
- Build UI for App widget (which will display one of favorite songs).

Task 3: Implement SongListFragement

- Implement SongAdapter class.
- This fragment will contain only RecyclerView to display the thumbnails of the videos.

Task 4: Implement MainActivity

- Using AsycTask to retrieve videos' data from youtube api and create array of parcelables.
- Attach SongListFragment and using the array of parcelables to display thumbnails of the videos.

Task 5: Implement SongDetailFragment

- Use youtube android player api to display video.

Task 6: Implement SongDetailActivity

- Attach SongDetailFragment to it.
- Make click handler for previous and next song actions.
- Making the video in full screen in landscape mode.

Task 7: Make data persistence for favorites

- Implement FavoritesContract.
- Implement FavoritesDbHelper.
- Implement FavoritesContentProvider.
- Make sure insertion and deletion from favorites work well with SongDetailFragment.

Task 8: Make Modifications in case of tablet

- Hide Previous and Next song actions from SongDetailFragment.
- Make a little colored bar underneath the thumbnail of the current watching video to indicate that this video is currently selected.
- Add DetailSongFragment to the MainActivity.

Task 9: Implement Widget for the app

- Create service to update the widget with one of the favorite songs of the user according to the fired action.
- Create widget provider which is responsible for setting correct values for the views of the home screen widget.
- In case of there is no favorite songs for the user, The widget display the last watched song.

Task 10: Implement Google Analytics service

- Create global_tacker xml file.
- Modify the Java code to allow tracking the screens

Task 11: Implement Google Ads service

- Make necessary changes in the manifest file.
- Make necessary changes in the code to display the ads at the bottom of the MainActivity.