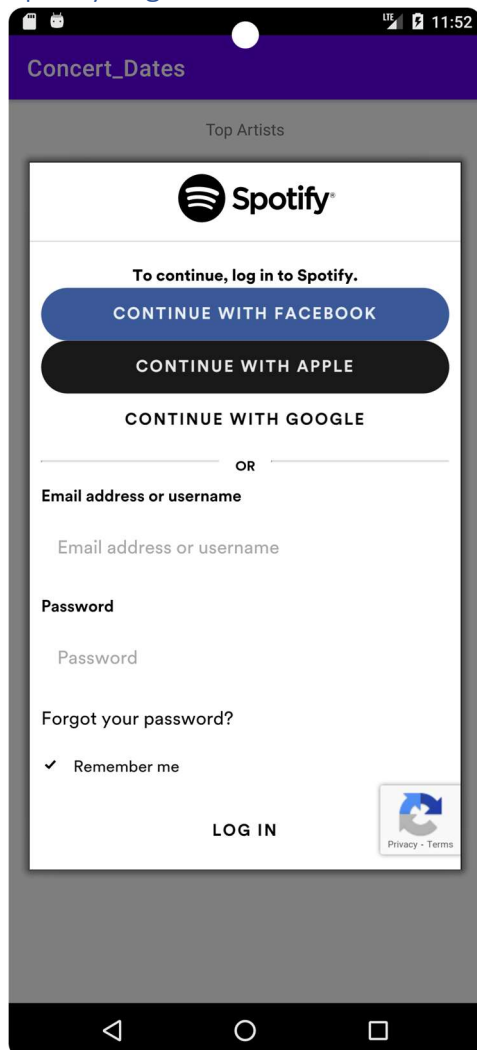# COSC 3P97 Concert Dates Application

Outline

       This Application is used to get information about Concerts by looking at your Spotify top 20 artists. The top 20 artists are decided by the Spotify algorithm based on how often you play a specific artist.
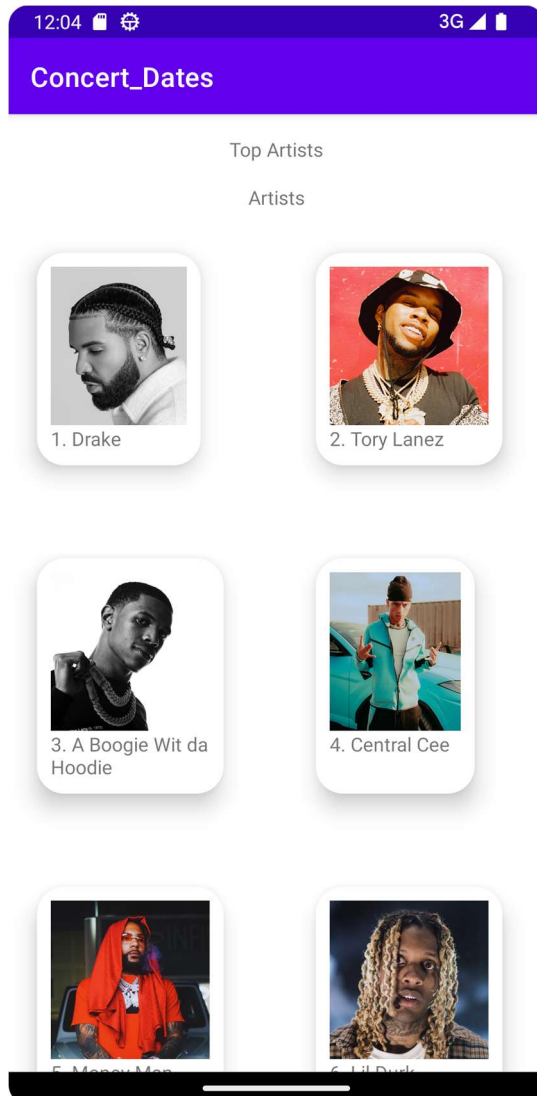
Application views

Spotify Login Views

       The Spotify login view is provided by the Spotify package and pops up when the application does not have the token needed to make requests and if the user has not provided the permissions needed to make the requests.
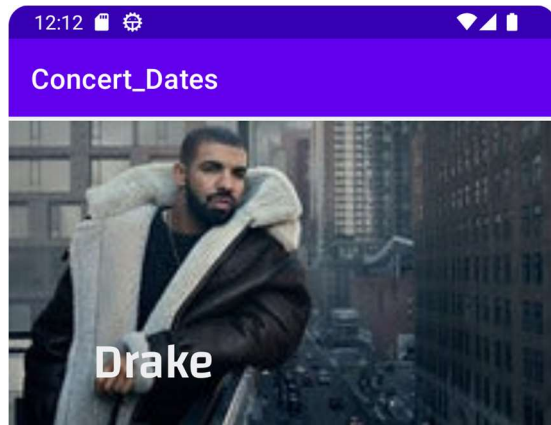
COSC 3P97 Concert Dates Application

Top Artists Page

The top artists page shows the top 20 artists retrieved from Spotify. The artists are in order of descending ranking. Each view here is clickable and will try to bring up the artists events. Clicking the view runs the Ticket Master API, one way to lower the amount of calls is to cache the ticket master artist ID on the first request this would lower the request calls by 50% on each subsequent click.
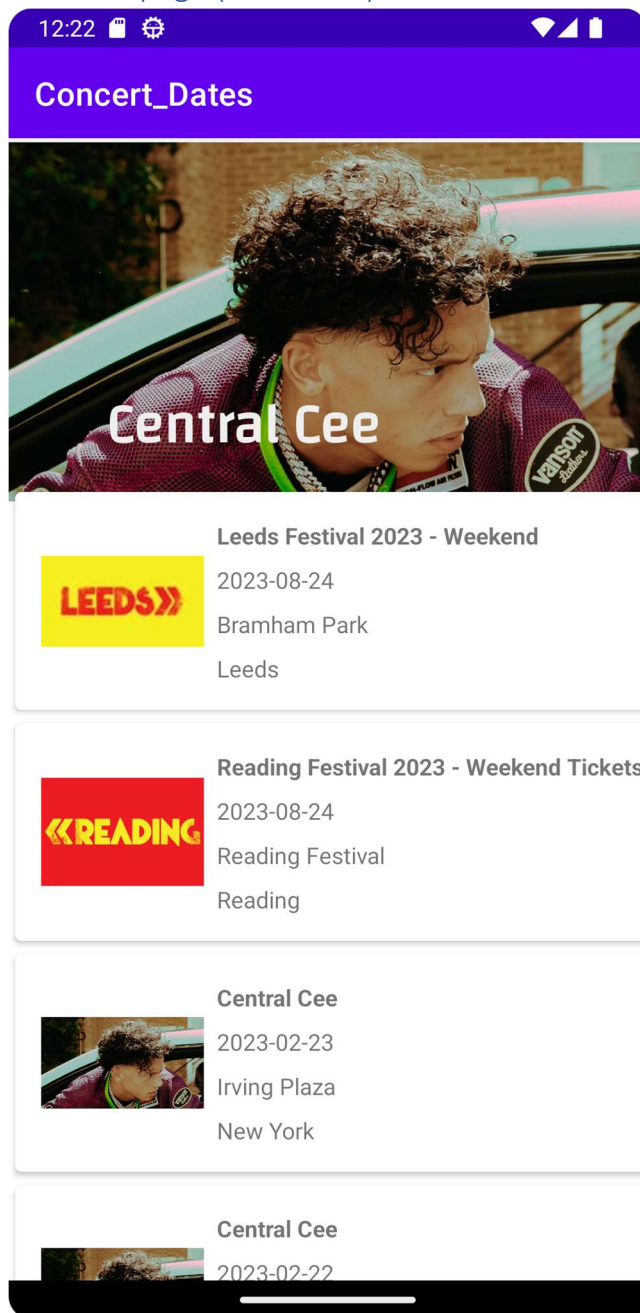
COSC 3P97 Concert Dates Application

No Concerts Available

This view shows when there are no available concerts with ticket master, this does not necessarily mean there are no concerts at all. Just no events with ticket master.
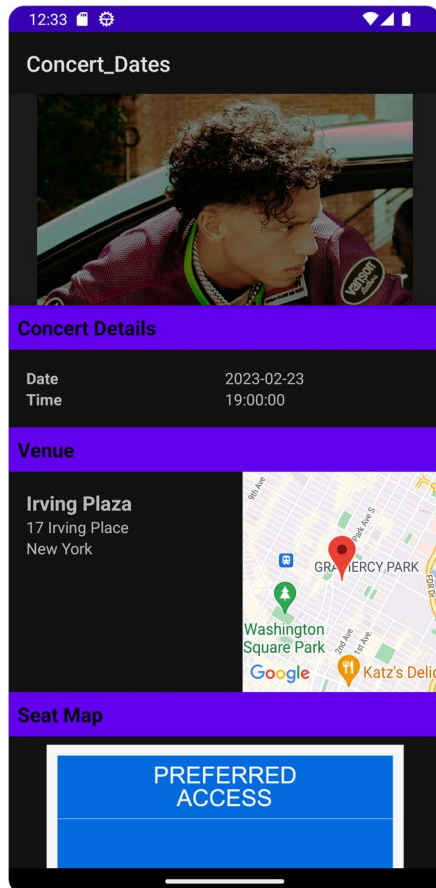
COSC 3P97 Concert Dates Application

The concerts page will show a list of events to attend along with the date of the event, these events are clickable to get more information about the concert. This information is retrieved by making a request to ticket master to find the artist ID by the artist name, once the ID is acquired we also get the artist image from ticket master (different than the one we got form Spotify) we set the banner to this image. The events are retrieved from ticket master using the devices COARSE location and querying using the LatLng. Android Emulator location is always set to San Jose California and

COSC 3P97 Concert Dates Application

doesn't use an actual real location so the events showed are based on that location.

Concert page

Dark mode example of this view. This view does not need to make another API call but instead uses the information from the last API call which is passed on through intent.putExtra(). As you can see hear the google map API is used by passing the LatLng of the venue obtained from Ticket Master into google maps to get the location of the event. Below is a Seat Map to see how the concert is set up.

Third Party APIs

Spotify API

COSC 3P97 Concert Dates Application

API provided by Spotify that requires permission from the user to retrieve data. Immediately it is implemented on the first use to check for the token and a login option will pop up. We use this API to get the top 20 artists.

Google Location Services

API provided by Google which allows us to get the location of the device. This API uses FusedLocationClientServices to get the current location of the device. In the emulator this will be San Jose California. A check and request for location permissions must be added before using the getLocation method or else you will receive nothing from the API.

Google Maps API

This API was used to show the location of the concerts. LatLng is sent to the maps object to show the location of the concert.

Sources

I used a few projects for inspiration, for example I used the Spotify Login Example to set up my mainActivity. I used a RecyclerView tutorial to help me create my list of cards. I sued a Concert Dates project to learn how to use the Maps API and make searches to Ticketmaster.

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