Basic Instructions:
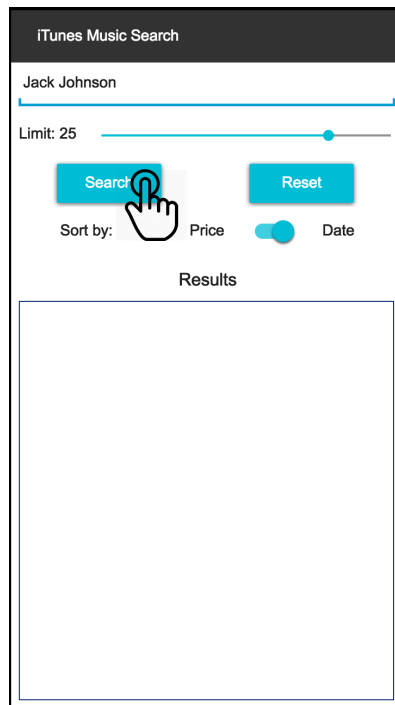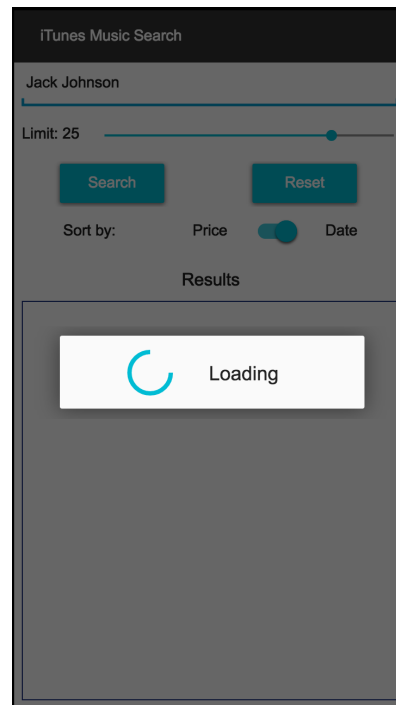
1. In every file submitted you MUST place the following comments:
   a. Assignment #.
   b. Full name of of the student.
2. This is an individual assignment.
3. Your assignment will be graded for functional requirements and efficiency of your submitted solution. You will lose points if your code is not efficient, does unnecessary processing or blocks the UI thread.
4. Please download the support files provided with this assignment and use them when implementing your project.
5. Submission details:
   a. Export your Android project and create a zip file which includes all the project folder and any required libraries.
   b. The file name is very important and should follow the following format: **800#_InClass07.zip**. You should submit the assignment through Canvas: Submit the zip file.
6. Failure to follow the above instructions will result in point deductions.
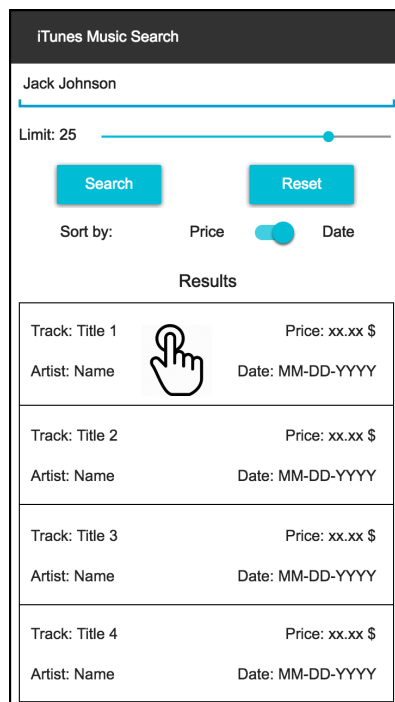
In Class 07 (100 points)

In this assignment, you will be developing the same Music Search Application using iTunes API. You can search any music related Key Word (track title, artist name, etc.) and display. You will be developing the app using ListView/RecyclerView.
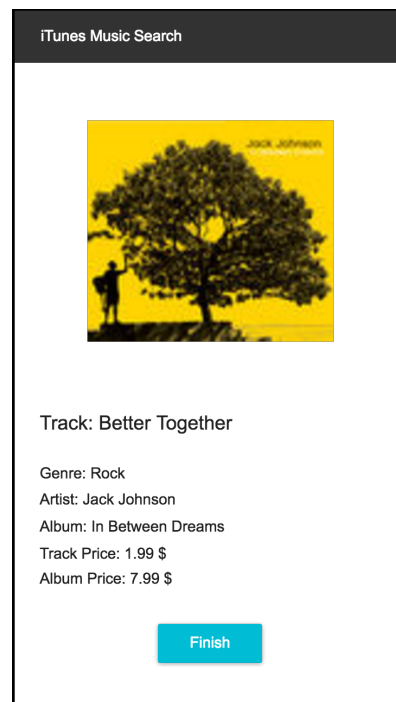

(a) Main Activity

(b) Parsing Data

(c) Display using ListView

(d) Display Activity

Figure: App wireframes

the search results. Your application should be able to view the details of the selected music track. You will be using JSON parsing to retrieve the music tracks, ListView/ RecyclerView to display the list, and a different activity to show the details of the selected music track. The assignment consists of two screens:

1. Main screen.
2. Display Details screen.

JSON API: We will be using iTunes search API to develop the app. Please read the following for the API details:

API URL	https://itunes.apple.com/search?term=<Search Keyword/s>&limit=<# of Results>
term	Keyword/s you put in the search bar. If you put two or more keywords in the search bar like in our example, you should modify the URL to https://itunes.apple.com/ search?**term=jack+johnson**&limit=25
limit	It should be taken from the SeekBar. The minimum value should be 10, and maximum value should be 30.
Track name	use **trackName** from JSON
Genre	use **primaryGenreName** from JSON
Artist	use **artistName** from JSON
Album	use **collectionName** from JSON
Track Price	use **trackPrice** from JSON
Album Price	use **collectionPrice** from JSON

Main screen: please follow the instructions in the following:
1. The app should have a search bar on the top.
2. There should be a SeekBar to set the limit right below the search bar. The minimum should be made 10 and the maximum should be made 30. When the user moves the Seekbar, the value should be changed accordingly.
3. There should be two buttons right below the SeekBar: Search, and Reset.
4. Putting Keyword/s in the search bar and clicking on Search button should start parsing. It should display a Progress Dialog (Spinning) while parsing the data.
5. Clicking on the Reset button should clear up search texts, and move the SeekBar to the minimum.
6. There should be a switch button to sort the results. There should be two options: Price, and Date. The default should be set to Date. Turning it On or Off should change between the options.
7. There should be a list of results below the sorting switch. It should be created using **ListView/RecyclerView.**
8. Each item in the list should display the Track Title, Track Price, Artist Name, Date (in MM-DD-YYYY format).
9. Clicking on any item should take the user to a new Display activity.

Display details activity: Please follow the instructions below:
1. On the top, it should display the Track Image (the resolution should be 100x100). You need to display the image of right size using the URL retrieved from the API.
2. Below you should display the Track Name (text size should be a bit larger), the Genre, the Artist's name, the Album name, the Track Price, and the Album Price.
3. Clicking on Finish button should take you back to the main activity.

NOTE: If you implement the list using a RecyclerView, you will get a 10 points bonus.