Lab-3: StarGazer

Due on: Apr-17 (Wed)

Objective: Design and implement a networked application that fetches data from two different sources, and combines them in a synchronized manner for presentation to the user.

Problem Description:

In this assignment, you will implement an app called "**StarGazer**". When you start your application, it will display a collection of image thumbnails from NASA's most recently posted images. When you click an image, it will download the image and show the full resolution version. Refer to the PhotoGallery application discussed in class.

You will need to explore the available APIs from NASA at https://api.nasa.gov/index.html. You may need to sign up for an API key although there is a demo-key available with limited access. Plan early since these tasks may take time.

The second feature of the app is as follows.

While the image is shown in full resolution, **play a music track**, to create the sound effect associated with the image. You may use any site for getting the short sound clips. You have two choices – (a) download a set of sound clips, and randomly associate a clip to the image displayed; (b) download the sound clip when a thumbnail is clicked, and play the sound when the image is displayed. The sound clip plays in loop only when the full resolution image is in display, not while viewing the thumbnails. Once the user goes back to the gallery view, then the sound should stop.

Here is SoundCloud website's API. You may use any other website that provides free API to download sound clips.
https://www.programmableweb.com/api/nasa-space-sounds

Grading Criteria: You will test your application for the following criteria

i.	Initial view of the picture thumbnails and scrolling	[10 pts]
ii.	Show the full res picture	[10 pts]
iii.	Play music while picture displayed	[5 pts]
iv.	Music stops when back to thumbnail view	[5 pts]

        Total   **[30 pts]**

Extra Credit: [max. 20 pts]

- Implement the UI using swipe:
    - Left/right swipe moves to next/prev image while viewing full resolution image [10 pts]
    - Top/bottom swipe gives a **like/dislike** to an image. After going back to thumbnail view, the like/dislike is shown. [10 pts]

Submission Instructions:

- Use the Github Classroom to upload your implementation. Any other form of submission will not be accepted.