CMPS 121 - Assignment 2

Spring 2019

Submission deadline: May 10, 2019, at 11:59 pm

In this assignment, you are to write an application that allows the user to download images from the internet and display them in a scrollable list. In order to have a scrollable list, you may use ScrollView, RecyclerView, ListView, or GridView. On the main activity, you will see **4** buttons:

- Downloading an image and store it in the database (**DOWNLOAD**):
  You will be taken to another screen where you have two EditTexts, one for entering a URL for an image to be downloaded and the other is for the title of the image. You need to store this image along with its title permanently in your database. Your primary key for your table should start from 1 and increases every time you are downloading a new image. Once the download is complete, you should return automatically to the main page. Show a toast message on the screen if the download was successful or an error toast if there is no internet connectivity. This might be a good resource to find out how you can store images in a database.

- Delete an image from the database (**DELETE**):
  You will be taken to another screen where you have the option of providing ID (primary key) or the title of the image you are about to delete. Then by clicking the "OK" button, if **any** of the provided information matches one of the images in your database the image should be removed from your database permanently. Show an error toast message on the screen if the title **AND** the ID do not exist in the database.

- View all images in the database (**VIEW**):
  You will be taken to another screen where you see a scrollable list of all images and their titles. To implement a scrollable list, you can use any of the resources provided in the first paragraph.

- View images in a certain range (**RANGE**):
  You will be taken to another screen where you will be asked about two numbers specifying the range of IDs you want to display. Then by clicking the "DISPLAY" button, you will be shown a scrollable list of all images along with their titles in the range specified by the user. Show an error toast on the screen if the range is not valid.

Grading:

1. Views:
   a. Main, Download, Delete, View, ViewRange activities (15 points)
   b. Scrollable display (with the correct format - image & title) after View or ViewRange (15 points)
2. Functionality:
   a. Navigation to Download, Delete, View, ViewRange activities from the main activity (10 points)
   b. Returning to main activity after download or delete and displaying toast messages (10 points)
   c. Navigation to list of images after View or ViewRange activities (5 points)
3. Storage and internet connection:
   a. Correct functionality of
      i. Inserting to the database (10 pints)
      ii. Retrieving all images in the database (10 points)
      iii. Selecting a range of images in the database (10 points)
      iv. Deleting items from the database (10 points)
   b. Correct checking for internet connection and corresponding toast messages (5 points)