The University of the West Indies

Cave Hill Campus

Faculty of Science and Technology

Department of Computer Science, Mathematics and Physics
SWEN1005: Mobile Web Programming
Assignment One

Photo Gallery App using HTML, CSS and JavaScript

INSTRUCTIONS

For this assignment, you are to create a simple responsive photo gallery mobile web application for your phone. The app will consist of two screens.

Screen 1

This screen is a thumbnail array. It shows 24 images at a time in a 4x6 array (four thumbnails horizontally). The thumbnails are all the same dimensions and should be sized to fit the 24 images easily on whichever mobile device it is being displayed on.   **[20 marks]**

Basic Behaviour: When the user swipes right or left–or taps the right or left side of the screen–he or she should see the next 24 thumbnails (swipe/tap right), or the previous 24 thumbnails (swipe/tap left).   **[10 marks]**

Tapping once on an image will bring it up on Screen 2, whose behaviour is described in the Screen 2 section.   **[5 marks]**

Advanced Behaviour: Pinching and zooming the screen will enlarge or shrink the thumbnails respectively.   **[10 marks]**

This will change the array to two thumbnails wide at its largest and six thumbnails wide at the smallest scale respectively. The number of images displayed vertically will adjust based on the screen space available.   **[5 marks]**

Screen 2

This screen displays the image that was tapped in Screen 1 at a scale that allows the user to see the whole image. **[25 marks]**

Basic Behaviour: Double tapping the image will increase the scale by two, effectively zooming in on the image. Double tapping on an enlarged image returns it to the default scale. **[5 marks]**

Swiping up will slightly reduce the image size so that three lines of simple image information can be displayed below image. The information that must be displayed is the image name, the image size in MB, and the image resolution in pixels. **[5 marks]**

Advanced Behaviour: Pinching and zooming the image will slowly decrease/increase the image scale. **[10 marks]**

Pinching an image that is at it default scale will return the user to Screen 1. The user can zoom the image to the highest scale permitted by the device. **[5 marks]**

Graphical User Interface

Use HTML, CSS3 and JavaScript to create the application. The interface design should be:
- Clear
- Concise
- Familiar
- Responsive
- Consistent
- Attractive
- Efficient
- Forgiving

Take full advantage of what HTML, CSS and JavaScript offer when creating your interface. Feel free to use W3 Schools, MDN or other trusted web sites for assistance; however, reusing a template/code is plagiarism (review The University's policy on plagiarism **HERE**).

Submission

1. Your deadline for submission is **Friday March 3, 2023**, on the eLearning system.
2. Upload a zip folder called **Assignment_One** containing the files for the app including the images used by the app. Ensure that the zipped file is under the file size limit allowed by the eLearning system.