Assignment 2 – Develop a media recording app

Total: 5 marks
Due date: 11.59 pm 24th September 2023
Submission:
1. **Submit all project files as one zipped file.**
2. **A one-page document explaining the cloud synchronisation strategies.**
3. **Record a demo of your project and upload to canvas. Your tutor may ask you to demonstrate your app on pre-scheduled time if necessary.**

Camera and Location are two of the most frequently used sensors on an Android device. In this assignment, you are required to write an app that enables the user to take a video or photo and then upload it to Google's Firebase cloud server for backup. The main feature of the app should include the following;

1) Your app should be able to capture photos and videos leveraging built-in camera support. Once a photo or video is captured, the media should be saved locally. [1 mark]

2) At the time of taking a photo or a video, the location of the device should be recorded and linked with the photo or video. [0.5 mark]

3) Your app should be able to back up the media (photos and videos) to Google's Firebase platform cloud server without any user interaction. [1.5 mark]

- Device bandwidth and energy consumption of the app should be considered in designing the synchronisation process. **One-page document** explaining, (i) the developed strategies for both automated and user driven synchronisation and, (ii) how bandwidth and energy saving are achieved, should be submitted. [1 mark]

4) Photos and videos should be grouped city wise at the cloud server. [0.25 mark]

5) Demonstration

- Demonstrate that the app can be built and run successfully on emulator. This should be the app version submitted to the Canvas. [0.5 marks]
- Compliant with the official Android Java code style guidelines (https://source.android.com/setup/contribute/code-style), use proper indentation, stick within the 100 characters length for each line of code, no trailing whitespaces and no unused imports. [0.25 mark]