SCHOOL OF INFOCOMM

Automated Car-Plate Recognition System (ACRS)

Partner Organisation: *Republic Polytechnic*

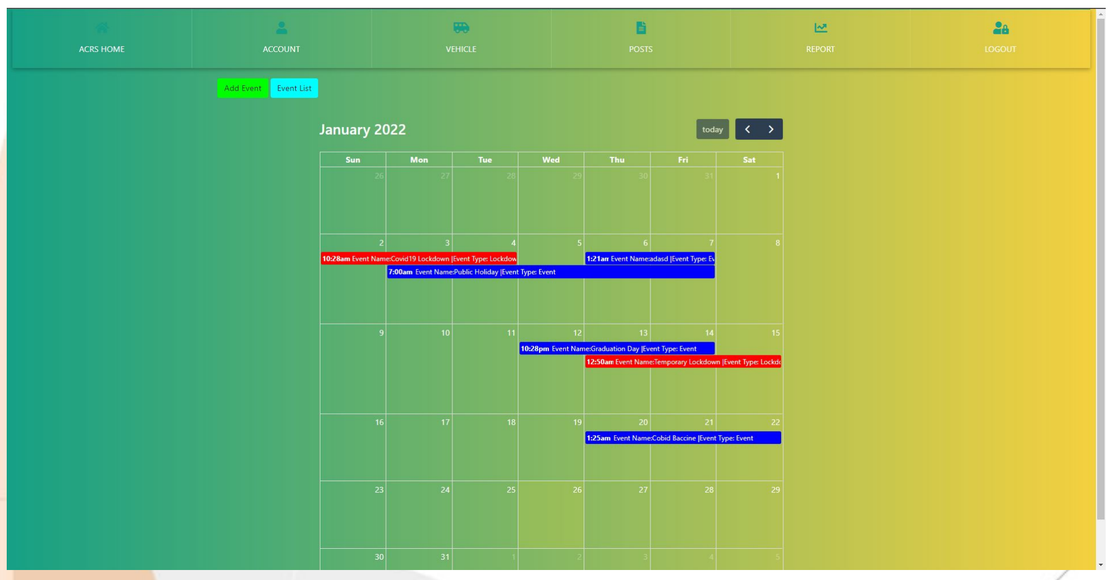
Project Overview

Problem: In the event of a school lock-down, all vehicle access to Republic Polytechnic (RP) will be restricted to RP staff registered vehicles. There will only be a single-point-of-entry into RP and OES will need to verify the existence of the vehicle record before it can enter RP. The total number of vehicles registered with RP is more than 500 and the only means of checking is through manual check.

Requirements: To develop a mobile application that identify the license plate number from an image taken from mobile phone that will match against the list of approved vehicles for entry access.

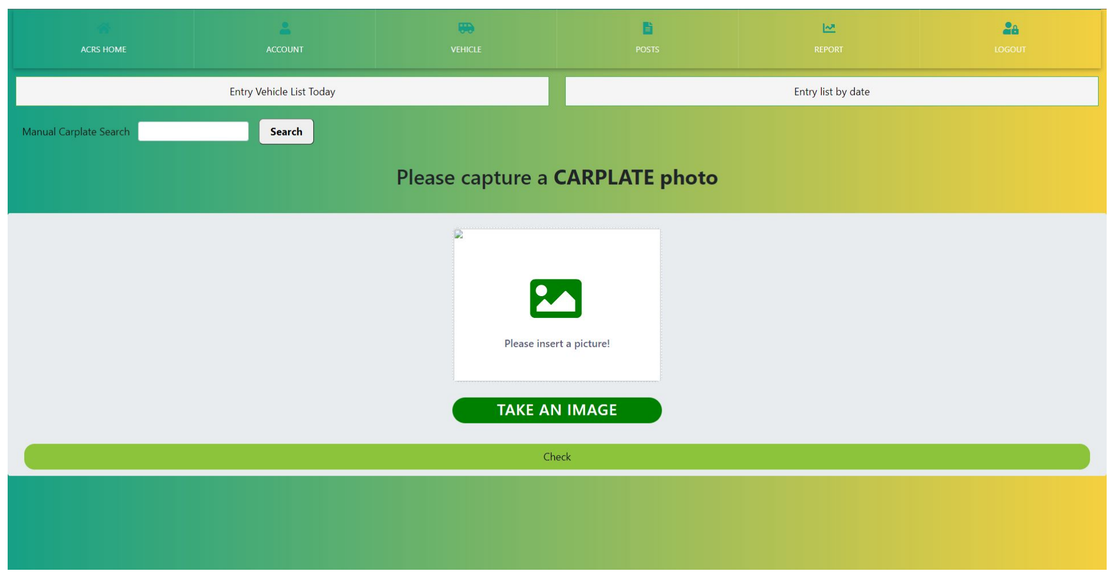
Solution: Created a mobile friendly web application of an Automated Recognition System that is equipped with license plate recognition capability and other admin useful features.

Technologies: ACRS is created using Python Flask via a web based application, PythonAnywhere, where SQLAlchemy codes is used to create the database structure and to execute SQL commands in the system. "Plate Recognizer" API is implemented which allow users to capture images to detect the car-plate numbers. ACRS can be accessed through both a mobile phone and a computer.



Calendar function & Homepage

Dashboard of reports page (Admin)



Vehicle screening page

Team Members:
Daniel Soong, Elly Haniz,
Muhammad Izharfan, Nurul Natasha
Ms Shannen Ang (Supervisor)

REPUBLIC POLYTECHNIC
DISCOVER. TRANSFORM. ACHIEVE