

Description:

You were hired by the California police to implement a cloud solution that automates catching traffic violators and notifying them via text messaging or email. You were given the following information:

- California cities installed cameras at intersections.
- When a camera detects a traffic violation, it takes a picture of the front or rear of the offending vehicle.
- The picture is sent to an image processing software that extracts the license plate from the picture.
- The clean license plate picture is uploaded to an AWS S3 bucket (Figure 1).

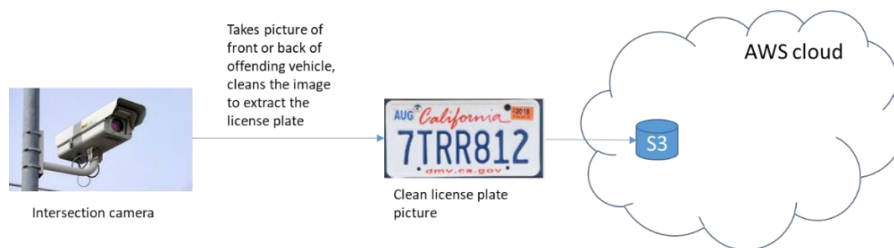


Figure 1: Camera and Image processing software output a clean picture of a license plate, which is then uploaded to an S3 bucket.

- You have access to the California Department of Motor Vehicles (DMV) database: an XML file that matches license plates to vehicles information and owners (see the **Implementation Hints** section on page 2).

Complete the solution such that when a license plate picture arrives to S3, the corresponding vehicle owner is sent a text message or email. If a license plate is not found in the database then the code should skip such vehicle and do nothing.

The text message (or email) should have the following format:

Your [Color] [CarMake] [CarModel] (license plate [LicensePlate]) was involved in a traffic violation. A ticket will be mailed to your address.

For example, if the vehicle is a blue Ford Escort with license plate 7TTR812, then the text message should be:

Your blue Ford Escort (license plate 7TTR812) was involved in a traffic violation. A ticket will be mailed to your address.