Problem Definition and Solution Strategy

Problem

In this project, we're going to build an automated passenger boarding kiosk using AI services from Microsoft Azure to improve the pre-flight boarding procedures.

Data sources

- 30 seconds video
- 5 Boarding pass
    - First name
    - Last name
    - Seat
    - Flight number
    - Origin
    - Destination
- 5 Driving license ID card
    - First name
    - Last name
    - Date of birth
    - Face picture
    - Sex
- Lighter images
    - Public lighter images
    - Test Carry-on images

Solution

Extract text within the boarding pass and driving license using Form Recognizer.

Extract human face within the driving license and video using Face API. For the video, we need to use Video Analyzer before.

Build a model to detect lighter in carry-on baggage using Custom Vision.

Model metrics and evaluation:

- For model evaluation different metrics such as recall, and precision will be calculated for models.
- For DOB and name validation: extracted information from driving license and boarding pass
- For person validation: picture extracted from 30 seconds video and driving license
- For carry-on baggage validation: extracted picture from carry-on baggage