Project Problem Description

Project Objective:

Designing a AI bases passenger boarding kiosk. The kiosk is automated and functions without human assistance.

The kiosk supports the following:

- Passenger can scan his ID.
- Passenger can his boarding pass.
- There is an automated verification of ID-information and boarding-pass-information against the flight manifest.
- If name, date of birth and boarding-pass information match against the flight manifest, the passenger is allowed to pass. The boarding kiosk generates a welcome message for the passenger summarizing his flight's information.
- If at least one of the validation fails the passenger is pointed to the service desk, for human support.
- (additonally the kiosk scans for prohibeted items in the carry on luggage. This check is not used for passenger verfication in this first PoC)

Input Data Sources:

- Flight Manifest List for all passengers
- Passenger ID card
- Passenger Boarding Pass

The Solution Strategy:

- Azure Document Intel Service is used to extract information from ID and boarding pass.
- For boarding pass a custom model is trained with all relevant labels
- For ID the pre-trained Azure-ID-model is used
- Extracted information will be stored in json-files per passenger. There will be one file with extracted ID-information and one file with extracted boarding pass information per passenger.
- Those files are read in and checked against the information in the flight manifest.

- If one or more checks fail the passenger is pointed to the service desk for human assistance otherwise the passenger is admitted and the welcome message with his flight’s information is generated.
- (Azure Custom Vision Service is used the identify lighters in carry on luggage.)