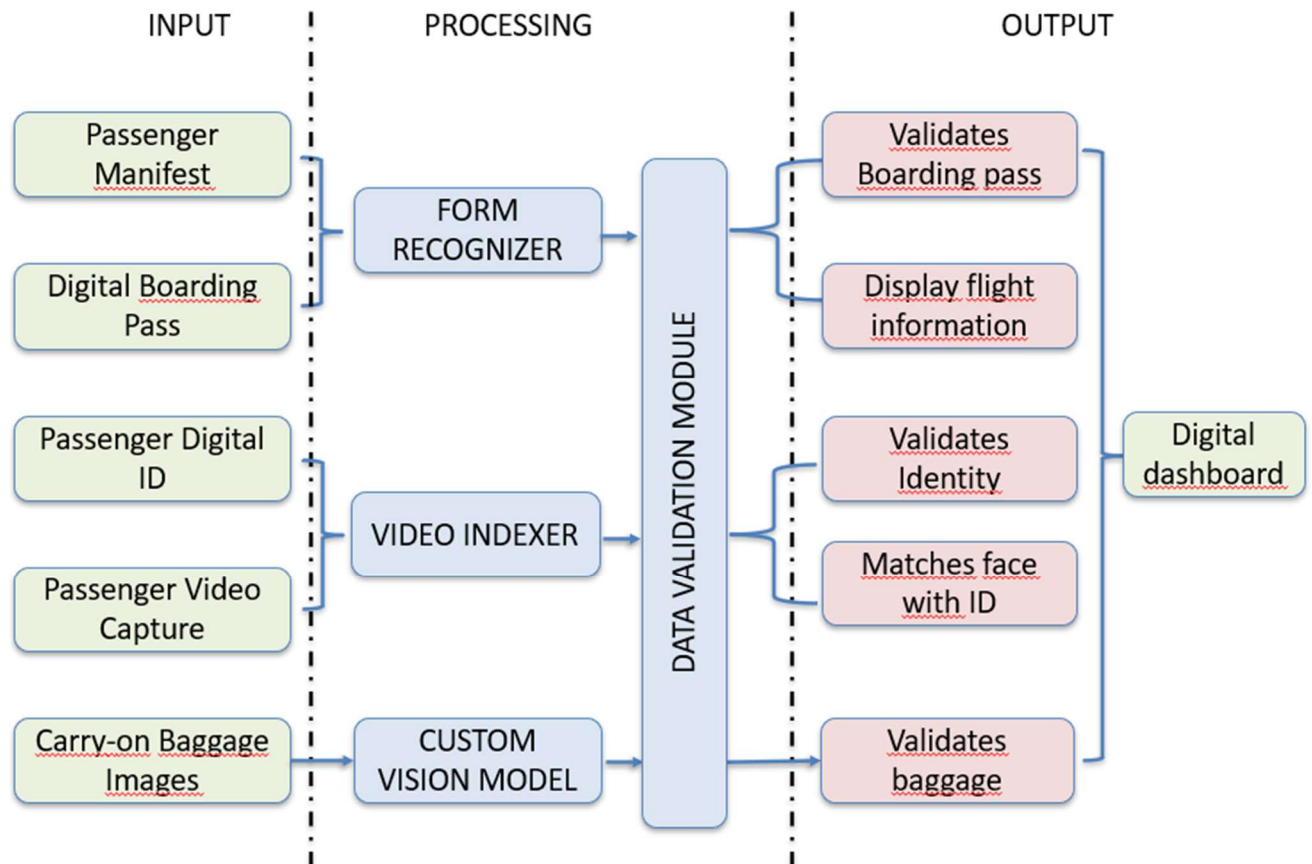# Project Data Flow Diagram

Project Data Flow Diagram Explanation

The data flow diagram represents the components and interactions involved in the automated boarding kiosk system:

Inputs:

- Passenger Manifest

- Digital Boarding Pass

- Passenger Digital ID

- Passenger Video Capture

- Carry-on Baggage Images

Processing Components:

1. **Form Recognizer:** Extracts passenger data from boarding passes and IDs.

2. **Video Indexer:** Performs facial recognition by comparing live video to ID images.

3. **Custom Vision Model:** Analyzes carry-on images for prohibited items (lighter detection).

4. **Data Validation Module:** Confirms consistency between extracted data, passenger manifest, and facial recognition results.

Outputs:

- Boarding Authorization Message ("Board the plane" or "Please see an airline representative")

Data Flow:

- Passenger Manifest and boarding pass/ID data feed into the Form Recognizer.

- Video capture and ID photo are processed by the Video Indexer.

- Carry-on images are analyzed by the Custom Vision model.

- Outputs from these components flow into the Data Validation Module.

- Finally, the validation module produces a clear passenger authorization message.