

Automated Passenger Boarding Kiosk – Data Flow Diagram

Boarding pass

Passenger Name		Carrier	Flight No.	Class	Passenger Name	
Keerthana Manoharan		UA	234	B	Keerthana Manoharan	
From: San Francisco		Date		Baggage	Seat	Passenger Name
To: Chicago		April 20, 2022		YES	7B	Keerthana Manoharan
GATE		Boarding Time				
G1		10:00 AM PST				

Flight Validation						
Carrier	Flight No	Class	Seat No	Origin	Destination	Gate
						Date
						Boarding Time

Name Validation	
First Name	Last Name

Flight Manifest Table	
-----------------------	--

Digital ID



DoB Validation	
DoB	

Identity Validation	
Face Pic (ID)	Face thumbnails (Live kiosk)

Sentiment & Emotion	
Face thumbnails (Live kiosk)	

Passenger standing at Kiosk

3-Way Person Name Validation

The first and last name extracted from the boarding pass and ID card must match with the name on the flight manifest table

DoB Validation

DoB extracted from the ID card match with the flight manifest table

Boarding Pass Validation

Various flight-specific information extracted from the boarding pass is matched with the flight manifest table. The information includes flight number, seat number, class, origin, destination, flight date, and flight time

Person Identity Validation

Face extracted from the ID and that from the video should match, and the match result should be 65% or higher

Luggage Validation

The carry-on loose items in the passenger's pocket contain a lighter in it or not

Note: For luggage validation, you can leave all values as FALSE in the manifest table, since we don't have a way to match luggage validation with passengers.