

Passport authentication

Introduction:-

- Purpose:- It is designed to securely verify the identity of individuals using a passport as a primary identification document. The system ^{ensures} that passports presented are genuine & minimizing the risk of fraud.
- Scope

The system will be used by government agencies, immigration departments, & airports to authenticate passports efficiently. The system will focus on reading passport data, validating it with centralized databases.

→ Overview:-

The PAS will

→ Scan & extract passport information using OCR & MRZ data

→ Validate the extracted data against an authoritative database or passport chip for verification.

→ General Description:- Users: Border control officers, immigration officers, bank officials & airport security personnel.

→ Modules:- Passport scanning, data extraction, logging

→ Functional Requirements:-

→ Passport scanning

→ Data Extraction

→ Database validation

→ Facial Recognition

→ Alert System.

→ Interface Requirements:-

- UI:- A simple, user-friendly interface for operator to quickly scan & authenticate passports.
- API
- Admin Interface.

→ Performance Requirements:-

- Response Time:- The system should authenticate 3-5 seconds.
- Capacity:- should handle concurrent processing of at least 50 passport authentication per second.

→ Design Constraints:-

- Compliance:- Must comply with International Standard such as ICAO Doc 9303 for machine readable travel documents & security standards.
- Scalability:- The system should be able to handle increasing no of passport & user loads.

→ Non-Functional Attributes:-

- Security:- Use encryption for all data transmitted b/w passport reader & server.
- Reliability:- High reliability is required.
- Maintainability
- Usability.

Preliminary Scheduler

- Planning & Requirement Gathering : 2 weeks
- Design & Prototyping : 3-4 weeks
- Development : 8-10w
- Testing & Quality Assurance : 3w
- Deployment : 2w
- Total Estimated Duration : 18-20w

Budget:-

- Development Team Costs :- \$80,000
- Hardware Costs : \$10,000
- SW Licenses : \$5,000
- Maintenance costs : \$15,000

Total Preliminary Budget Estimate : \$105,000

Aug 21/10/24

Passport Authentication System :-

1 Verification process

Application

ATID

Aname

ADate

Status

SubmitApplication()

Track Status()

UpdateApplication()

Initial Application

Initial fee paid

required Document

check Document()

Pay Fee()

Renewal Application

old Passport no

renewal Fee Paid

check old Passport()

renew Passport()

Cost Passport Application

Cost PP Application

Police Report Submitted

report lost PP()

apply for replacement()

Applicant Application

applicant ID

Application ID

Submission Date

get Application Details()

update Submission Date()

Applicant

ATID

name

DOB

Phone no

apply for PP()

update Details()

Paid for

undugon

verified application

Passport

PNo

IssueDate

expiryDate

is valid()

getPassportDetails()

Verification

VIP

OfficerID

VDate

Status

performVerification()

updateStatus()

Conducted By

Officer

or ID

name

department

assigned application

assignApplication()

completeVerification()

Fee

FID

amount

ApplicationID

Paid

payFee()

getFeedback()

Work with Embassy

Employment

Embassy

CID

Location

Contact no

Passport Delivery

processDelivery()

contactEmbassy()

Sealed
PassportEmbassy
Office