28/8/25

Date 1/1
Page 19

PASSPORT AUTOMATION SYSTEM

1. Develop a problem statement

The manual passport application and verification process is time-consuming and prone to errors. An automated Passport Automation System is essential to provide faster, more transparent and efficient passport services.

2. Develop a IEEE Standard SRS Document

Software Requirement Specification

1. Introduction

1.1 Purpose

The purpose of this document is to define the requirements of the Passport Automation System, outlining project objectives, scope and deliverables.

1.2 Scope

The document describes the working of the Passport along with time and cost estimates.

1.3 Overview

The Passport Automation System streamlines the passport application, verification and issuance process, reducing manual intervention and improving efficiency.

2. General Description

The system will cater to applicants, government staff, and administrators by enabling online applications, scheduling appointments, document verification and passport issuance.

Date / /
Page 20

3. Functional Requirements

3.1 Application Management

The system allows users to fill and submit passport applications online, provide tracking status for applications.

3.2 Document Verification

The system should enable secure upload and verification of required documents. The system should also integrate with government databases for identity checks.

3.3 Appointment Scheduling

The system should allow users to schedule/reschedule passport appointments, and must notify applicants of confirmed appointments.

3.4 Passport Issuance

The system should generate and print machine-readable passports, maintain applicant history and records.

4. Interface Requirements

4.1 User Interface

The system should provide an easy-to-use interface for applicants and staff, and must be accessible via web and mobile devices.

4.2 Integration Interfaces

The system shall ensure integration with government ID databases, and with payment gateways for application fees.

5. Performance Requirements

5.1 Response Time

The system shall make applications and

verification responses within 2 seconds.

5.2 Scalability
The system should be able to handle 10,000 concurrent applications during peak hours.

5.3 Data Integrity
The system should ensure accuracy and consistency of applicant records.

6. Design Constraints

6.1 Hardware Limitations
The system must work with standard government servers and biometric devices.

6.2 Software Dependencies
The system must be implemented using relational databases, and have implementation using Java / Spring Boot.

7. Non Functional Attributes

7.1 Security
The system shall implement strong encryption for applicant data.

7.2 Reliability
The system shall ensure uptime during working hours with backup systems.

7.3 Scalability
The system shall expand to support more passport centers.

7.4 Portability
The system must ensure web and mobile support for accessibility.

7.5 Usability
The system must present a simple interface for non-technical users.

7.6 Reliability
The system must implement modular design for future e-governance integration.

7.7 Compatibility
The system must support major browsers.

7.8 Data Integrity
The system must be supportive of consistent management of applicant records.

8 Preliminary Schedule and Budget
The Passport Automation System is estimated to take 7 months with a budget of $150,000 including development, integration, testing and deployment.