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Q5) Passport Automation System:

Problem statement: Design and implement an SRS document for passport automation system which renews, updates and verifies documents online.

SRS document

1. Introduction

1.1 Purpose of Document:

This document defines the requirements for the passport Automation system (PAS). It outlines features, performance expectations and the required constraints to automate application tracking and processing for citizens and authorities.

1.2 Scope of Document:

The PAS will allow citizens to apply for new passports, renewals, and updates online. It will support verification of documents, appointment scheduling, payment processing, and status tracking.

1.3 Overview:

The system will:

- Enable citizens to submit passport applications
- Allow scheduling of verification / biometric appointments
- Provide gateway for application fees.
- Track application progress and notify users
- Allow authorities to review, approve or reject applications

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2. General Description :

The PAS acts as interface between applicants and the government passport department. It streamlines manual operations and reduces paperwork.

Users include.

- Applicants : Submit application, pay fees, view status
- Passport officers : Verify documents, conduct background checks.
- Admin : Manage system, monitor reports, and enforce rules.

3 Functional Requirements :

FR1 : User registration and login with authentication
FR2 : Online application form submission and document upload
FR3 : Appointment scheduling for biometric and police verification
FR4 : Payment gateways for fees
FR5 : Status checking via SMS / Email
FR6 : Passport office's dashboard for verification and approval
FR7 : Generate report.

4. Interface Requirements :

- User interface : Web portal and mobile app for applicants, dashboard for officers.
- External interface : Integration with police database / national ID system and payment gateway
API interface : REST APIs for secure data exchange.

5. Performance Requirements :

- System should support upto 10,000 concurrent users
- Response time ≤ 5 seconds for application submission and status queries
- Database should handle millions of application records

6 Design Constraint:

- Must comply with government IT and security policies
- Sensitive data must be encrypted
- Biometric data storage must follow legal privacy regulations
- Accessible via desktop and mobile devices.

7. Non functional Attributes:

Security: Multi-factor authentication, encrypted communication
Reliability: 99.9% uptime, redundant backup
Usability: Intuitive forms and appointment booking
Scalability: Handle increasing applicants each years

8. Preliminary Schedule and Budget

Schedule:

Requirement analysis - 2 weeks
System Design - 3 weeks
Development - 8 weeks
Testing - 4 weeks
Deployment & Training - 2 weeks
Total = ~19 weeks

Budget:

Development Costs: ₹ 25,00,000
Infrastructure - ₹ 10,00,000
Testing & Maintenance - ₹ 7,00,000
Training & support ₹ 3,00,000
Total = ₹ 75,00,000