

5) Passport automation system

* problem statement:

To develop a automated system that streamlines passport application processing, reduces manual errors & accelerate issuance while ensuring data security & compliance

GRS document Introduction

* purpose of the document:

To specify detailed requirements & system design for the passport automation system to ensure all stakeholder needs are met & guide the development process

* scope of the document:

covers passport application submission, document verification, appointment scheduling, biometric data capture, status tracking & passport issuance

* Overview:

The system automates the entire passport lifecycle from application intake to delivery, providing interfaces for applicants, verification officers & administrators

* General description:

- Enables online application submission with document upload
- Supports biometric data collection
- Automated appointment booking & notification system
- verification workflow with approval/rejection processing

- Status tracking & alert notifications for applicants
- Report generation for administrative use

* Functional requirements

- User registration & secure login
- Application form filling with validation & document upload
- scheduling & managing biometric/verification appointments
- verification & approval/rejection of applications by officers
- Issuance & dispatch tracking of passports
- Notification system for status updates via email/sms
- Administrative reporting on applications & processing times

* Interface requirements

- Responsive web interface accessible on desktops & mobiles
- secure document upload functionality
- Integration with biometric hardware
- APIs for government databases & postal services
- Secure https communication for all data transfers

* Performance requirements

- Support at least 500 concurrent users during peak times
- Process & verify applications within 95 hours on average
- Real time status updates & notifications
- System uptime of 99.9% excluding maintenance

* Design Constraints

- must comply with government security & privacy regulations
- Use encrypted storage for sensitive applicant data
- support integration with national ID database
- System should be modular for future updates
- Hardware compatibility for biometric devices

* Non functional requirements

- high security & confidentiality of personal data
- User friendly interfaces with multi language support
- Scalable architecture to handle growing application volumes
- Reliable backup & disaster recovery processes
- maintainability with clear documentation

* Preliminary schedule & budget

- Requirement analysis - 3 weeks
 - system design - 4 weeks
 - development - 12 weeks
 - Testing - 4 weeks
 - deployment - 2 weeks
 - Budget estimation = 35-40 lakhs
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