

Software Requirements Specification For Passport Automation System

**Project Prepared For :
Software Engineering**

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1. INTRODUCTION:

1.1 Purpose :

The entire process of 'Issue of Passport' if done manually, would take several months for the passport to reach the applicant. Considering the fact that the number of applicants for passport is increasing every year, an Automated System is essential to meet the demand. So this system uses several programming and database techniques to elucidate the work involved in this process. As this is a matter of National Security, the system has been carefully verified and validated in order to satisfy it.

1.2 Document Conventions :

ACRONYM USED	FULL FORM
PAS	Passport Automation System
Administrator	Refers to the super user who is the Central Authority
Applicant	One who wishes to obtain the Passport.
DB	Database
DDB	Database Distribution
SRS	Software Requirements
HTML	Hypertext Markup Language

1.3 Intended Audience and Reading Suggestions :

The Passport Automation system is intended at helping the user to address issues from multi-disciplinary angles related to Passport Application services. The major benefits of this software are:

1. It is a unique software which helps to organize event without any paperwork.
2. It aims at improving the efficiency in the Issuing of Passport and reduces the complexities involved in it to the maximum possible extent.
3. This system tries to make the interface as simple as possible and also promises data security simultaneously. This minimizes the time duration in which the user receives the passport.

1.4 Product Scope :

The System provides an online interface to the user where they can fill in their personal details. The concerned authorities can use this system to reduce his workload and process the application in a speedy manner. It Provides a communication platform between the applicant and the administrator. Transfer of data between the Passport Issuing Authority and the Local Police for verification of applicant's information.

1.5 References :

1. Prof.Mrs.Bhagyashree Alhat Smart Passport System
Pushkar Aswale Bhagyashree Borade Siddharth Bhojwani Niraj Gojamgunde
“Smart Passport System”
IJSRD - International Journal for Scientific Research & Development | Vol. 4, Issue 01, 2016 | ISSN
2. Kendall & Kendall
Systems Analysis and Design
3. James A. Senn
Analysis and Design of Information Systems
4. Michael Blaha, James Rumbaugh
Object-Oriented Modeling and Design with UML
5. Grady Booch, James Rumbaugh, Ivar Jacobson
The Unified Modeling Language - User Guide

2. OVERALL DESCRIPTION:

2.1 Product Perspective :

The PAS acts as an interface between the 'applicant' and the 'administrator'. This system tries to make the interface as simple as possible and at the same time ensuring data security. This minimizes the complexities and also the time taken by user to finally get the passport.

2.2 Product Functions :

Some major product functionalities of the system are as follows:

1. Secure Registration of information by the Applicants.
2. Message box for Passport Application Status Display by the Administrator.
3. Administrator can generate reports from the information and is the only authorized personnel to add the eligible application information to the database.
4. User can check status of applied passport.

2.3 Operating Environment :

1. Better performance will lead to better operating environment.

2. It will be needing a concrete database that will be its foundation.
3. And an active participation for maintaining the database.

2.4 Assumptions and Dependencies :

1. The Applicants and Administrator must have basic knowledge of computers and English Language.
2. The applicants may be required to scan the documents while submitting.
3. The server is directly connected to the client systems. The client systems have access to the database in the server.

3. EXTERNAL INTERFACE REQUIREMENTS:

3.1 User Characteristics :

Login	Log into the system.
Applicant	They are the people who desires to obtain the passport and submit the information to the database.
Administrator	He has the certain privileges to add the passport status and to approve the issue of passport. He may contain a group of persons under him to validate and verify the documents and give suggestion whether or not to approve the dispatch of passport.
Police	He is the person who upon receiving intimation from the PAS, perform a personal verification of the applicant and see if he has any criminal case against him before or at present. He has been vetoed with the power to decline an application by suggesting it to the Administrator if he finds any discrepancy with the applicant. He communicates via this PAS.

3.2 Hardware Interfaces Minimum Requirements:

1. **Minimum Requirements:** Processor RAM Disk Space
2. **Recommended Requirements:** Processor RAM Disk Space
3. It supports xp and more than xp.

3.3 Software Interfaces :

1. Client on the internet
2. Web browser
3. Operating system(any)

4. Java IDE
5. Database Management Software

3.4 Communications Interfaces :

This will be a stand-alone system as it is going to replace the out-dated system and make functional improvements . Provision for communicating with the admin will be included and alerting employees in case of changes will also be a substantial part of the system.

4. SYSTEM FEATURES:

Secure Registration of information by the Applicants.Message box for Passport Application Status Display by the Administrator. Administrator can generate reports from the information and is the only authorized personnel to add the eligible application information to the database.

4.1 Filling Details :

4.1.1 Description and Priority :

The user needs to fill their details properly as verification is based on that.It has the highest priority in the system.

4.1.2 Stimulus/Response Sequences :

1. The user enters all the details in the form.
2. If all fields all filled then system returns the success message that details are entered

4.2 Economic Feasibility:

1. The project is economically feasible as it can run on any operating system be it Windows or Mac OS.
2. There will be an initial cost for buying the system with free of cost updates.
3. The users should be able to connect to internet through PC and this would be one of the costs incurred on the project.

4.3 Technical Feasibility:

To develop this application, an internet connection, a database server, a web server and software are required. The current project is technically feasible as the management system can be successfully deployed using various softwares available in market.

4.4 Easy To Use:

The application is behaviourally feasible since it requires very less technical guidance, all the modules are user friendly and execute in a manner they were designed to.

5. SYSTEM REQUIREMENTS:

5.1 Functional Requirements:

- 1. Creating An Account :** An user should be allowed to create account and should be able to recover the account via email/phone number.
- 2. Apply For Passport :** The system should provide facility of applying for passport to the users. For that user must give following inputs personal details (name, age, address etc) and there will be list of documents from user. They can choose what supporting document will be provided for verification.
- 3. Scheduling Appointment :** Once the user is done with providing details, the system must schedule an appointment (date and time) and display it on the page along with a confirm button.
- 4. Payment :** Payment can be done by credit/debit card or using netbanking.
- 5. Police Verification :** Once all supporting documents of the user are validated, the police verifies the user address and checks for any criminal records or any ongoing/past judicial enquiry against the user. Once all the details are verified by the police, passport is issued.
- 6. Tracking Status :** User can check the status of the applied passport.
- 7. Applying for Visa :** Once the applicant is issued with his/her passport, he/she can further apply for VISA.
- 8. Browsing For The Nearest Embassy :** If user wishes to apply for visa, he/she will be guided with the nearest embassy.
- 9. Scheduling Visa Interview :** Once the user applies for VISA, the system must schedule an appointment (date and time) for the interview and display it on the page along with a confirm button.

5.2 Non-Functional Requirements:

A. OPERATIONAL:

- The system should be compatible with all the browser
- The system should be able to use proper payment gateway
- The system should be able to handle multiple request.
- No two users must be scheduled with same time slot

B. PERFORMANCE:

- The system should perform without any lag of screen.
- Multiple devices should be able to connect to it.

C. SECURITY:

- Only devices with that particular passcode should be able to connect to it.
- System should protect and hide the applicant data

D. USABILITY:

- System should display proper directions in its navigation feature.

E. RELIABILITY:

- Proper measures must be taken to prevent crashes.
- In case of an error in pairing to a particular device, proper error message should be displayed and error report should be submitted to the server for further software improvements.

5.2.1 Performance Requirements:

Performance requirements define acceptable response times for system functionality.

1. The response time of the system should be less. The applicant under the criminal act are not allowed to issue passport .
2. Sometimes the workload will be high, that is in certain period the application will be high and sometime it will be less, then it should be managed properly by employing more staffs to process the system.
3. Administrator warrants that this system shall be capable of supporting atleast 1000 customers per day.

5.2.2 Safety Requirements :

Care must be taken to make sure that the data of the various parameters and entries in the database is sure. In case of damage or system failure, provisions must be made to retrieve data. Backup must be taken at regular intervals.

5.2.3 Security Requirements :

Every user is provided with unique ID with their password. Every user is authenticated before accessing their account. If authentication doesn't provided then illegal usage of passport will occur.

5.2.4 Software Quality Attributes :

1. The system is highly reliable.
2. The system is also adaptable under any conditions.

6. OTHER REQUIREMENTS:

The latest version of the database will be required and all the changes should be made concurrently to make accurate schedules. Also we need to timely modify our system as per the changing requirements.

Appendix A: Glossary

ACRONYM USED	FULL FORM
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Appendix B: Analysis Models

Will include the ER diagram and data flow charts.

Appendix C: To Be Determined List

Algorithm to be used and some extra functions.

7. USE CASE :



8. USE CASE DESCRIPTION :

Use Case Name	Passport Automation System
Description	The use case use form,validation,appointment,verification,status,delivery. In online form we get user's application and later we validate using validation use case then the applicant will get appointment for enquiry they will verify the details and in delivery use case they will issue the passport.
Actors	Applicant,Local Police,Admin,Staff
Precondition	Applicant should have a valid identity and address proof.
Post Condition	Applicant should be informed once the passport is issued.
Trigger	Applicant visiting the website for registration.
Frequency of use	Applicant will visit the website either as a new applicant or for renewal for expiring passport.
Flow of events	<ol style="list-style-type: none">1. Applicant logs in with the username and password.2. The Applicant enters his/her details and submit the required documents for applying for the Passport3. The System Administrator validates all the documents submitted by the applicant and schedules an appointment for police verification.4. The police receive intimation, perform a personal verification of the applicant and check for any criminal record against him/her.5. After receiving police verification status, the passport issuing action is taken accordingly.