
Software Requirements Specification

for

Passport Management System

Version 1.5

Prepared by Group-2

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Revision History

Name	Date	Reason For Changes	Version
Suvarti Sarkar	03/03/2018	Creation of the document including creating the sections and following the IEEE format for said document.	0.1
Soumik De	04/03/2018	Overall changes to the document(including following a fixed font format for the document, cleaning up parts of the document, rearranging the glossary, highlighting the TBD and mentioning them in the last section, rewriting assumptions, overhaul of section 4)	0.2
Rishov Nag	04/03/2018	Added Use Case Diagram Document.	0.3
Deborupa Roy	05/03/2018	Added detailed functional requirements, changed order. Fused some features from the previous version.	0.4
Suvarti Sarkar	05/03/2018	Added non functional requirements	0.5
Soumik De	05/03/2018	Non functional requirements segmented and some business rules added. Elevated to v1	1.0
Deborupa Roy	09/04/2018	UI Interfaces Added	1.1
Soumik De	09/04/2018	Some Functional and Non Functional requirements changed.	1.2
Suvarti Sarkar	10/04/2018	ERD Added	1.3
Rishov Nag	15/04/2018	DFD Added	1.4
Soumik De	14/06/2018	Sections and TBD's removed.	1.5

1. Introduction

1.1 Purpose

Passport Management System is application by which the passport employees can work more efficiently. It aims at providing a system for easy issuance of passport and to provide easy(but restricted) access to the said information.

1.2 Document Conventions

Section headings have a font size 18 and font Times New Roman(bold)
Sub Section headings have font size 14 and font Times New Roman(bold)
Paragraphs under any section have font size 12 and font Arial

The document is tried to be made gender neutral in keeping with workplace practices.

The priorities have been assigned to different system features with the highest priority being given to those by which the client can be shown a prototype of the product.

1.3 Intended Audience and Reading Suggestions

The readers of this file are requested to go through the attached files as mentioned in Appendix B to develop a high level understanding of the product.

1.4 Product Scope

The authority concerned with the issue of passport can use this system to keep track of the workload and process the application in a speedy manner. It also provides a system for easy retrieval of passport information. Moreover, it provides an easy way to supervise all the employees and their workload. It helps to keep track of transfer of data between the Passport Issuing Authority and the Local Police for verification of applicant's information and notify the printing authority to print the passport and ensure it's delivery to the applicant.

2. Overall Description

2.1 Product Perspective

This product acts as an interface between all levels of employees. This system tries to make the interface as simple as possible and at the same time not risking the security of the data stored in. This minimizes the time duration in which the applicant receives the passport.

2.2 Product Functions

- Upload required details to the system.
- Allot the duty to different members of the staff.
- Scheduling appointment.
- Security of the data.
- Pass the necessary data to police department for the verification of data.
- Notify the printing authority for printing and delivery of the passport.

2.3 User Classes and Characteristics

- **Low Level Staff**- First point of contact for the application process. Covers the first step of the application.
- **Information officer**- Focal point for retrieval of information regarding passport or for the status of the application. Also contacts the applicant for setting up the interview (if could not be contacted by email). Note: Contacting the applicant may be fully automated in future versions
- **Verification officer**- Verifies the uploaded documents and does the final cross checking before sending it off to be printed.
- **Interview officer**- Conducts the interview of the applicant and uploads applicant's biometrics to the system.
- **Police**- On receiving intimation from the PAS, verifies the address of the applicant and conducts background checks as required by the scenario.
- **Admin**- Can add staff information to the system and decides the role of the said staff.

2.4 Operating Environment

The software must be able to run on systems running Windows 7 and above. The systems are assumed to be modest with not much power for resource intensive tasks.

2.5 Design and Implementation Constraints

- Payment System cannot be integrated into the system as portal to be provided by the client.
- Verification system cannot be connected with the central database until portal is provided by the client.

2.6 User Documentation

The client has made no specific demands on the manuals that need to be delivered with the software. Nevertheless, the company expects atleast a manual showing the different user screens for each user of the system detailing the set of tasks he is expected to perform.

2.7 Assumptions and Dependencies

- Each staff has a definite set of tasks that he is expected to perform with the duties not overlapping.
- Each application is handled by particular employee at every level. Once he undertakes that case, it is assumed that he will finish that task before moving on to the next.
- Verification officer has access to a central database so that he can verify the documents provided with the originals. Otherwise he has access to some method for verifying the information provided by the applicant.
- Information officer is the only point of contact for anyone requiring information about any passport and application status. He/She is expected to be diligent so that passport information cannot fall into the wrong hands.

3. External Interface Requirements

3.1 User Interfaces

A Rough Draft has been prepared until now. They are present in the accompanying folder named “UI” with descriptions for each given below.

File Name	Description	Corresponding Requirement
1-LoginForm.jpg	First landing page. Shows Login Form.	
2-NewApplication.png	Landing Page shown to Low Level officer for starting an Application.	4.1
3-NewForm.png	Page Shown for a New Application.	4.1
4-UploadDoc.png	Page for Uploading Documents.	4.3
5-UpdateForm.png	Page Shown for an Updation Operation.	4.1
6-Payment.png	Page Shown for Payment.	4.2
7,10-VerificationOfficer.png	Landing Page Shown to Verification Officer	4.4,4.7
7ab-Verification.png	Page Shown for Document Verification	4.4
8a-InformationOfficer.png	Landing Page Shown to Information Officer	4.10
8b-ViewStatus.png	Page for Viewing Status	4.11
8c-CancelledApp.png	Page for Refunding Cancelled Applciation	4.10
9a-InterviewOfficer.png	Landing Page Shown to Interview Officer	4.5
9b-UploadBiometrics.png	Page for uploading Biometrics	4.5
9c-IntFeedbck.png	Page for providing Appointment Feedback	4.5
10b-FinVer.png	Page for Final Checking	4.7

4. System Features

System features are created based on the Use Cases as described in the document attached in Appendix B.

4.1 Application

4.1.1 Description and Priority

Application process for issue, renewal or update of passport is initiated by the low-level staff as per the applicant's requirement. This feature belongs under PAS.

Priority: High

4.1.2 Stimulus/Response Sequences

- ❖ Low level officer initiates a new application
- ❖ The type of application is displayed (issue passport, renew passport or update passport) and the low level staff selects the necessary option.
- ❖ The other necessary fields as per the application are displayed and are filled up by the low level staff.

4.1.3 Functional Requirements

- ❖ REQ 1 : Application number will be auto generated. See Section 5.5 for format.
- ❖ REQ 2 : Form fields will be shown. Exact fields shown in Section 3.1.
- ❖ REQ 3 : If existing application exists under said person, no new application will be created for them.
- ❖ REQ 4 : Applicant must have an Aadhar Card.
For New Passport, it has to be checked that no existing Passport under same Aadhar Number exists.
For any type of Application, Aadhar number serves as identifying feature so that Applicant cannot have more than one application open at one time.
- ❖ REQ 5 : Filled fields must be checked to maintain consistency.
- ❖ REQ 6 : Form will be completed only after the connected features are completed (4.2 and 4.3)

4.2 Payment

4.2.1 Description and Priority

Payment receipt is generated depending on type of application and the low-level actor registers the payment by the applicant. This feature belongs under PAS.

Priority: Medium

4.2.2 Stimulus/Response Sequences

- ❖ Low level staff will be shown the modes of payments.
- ❖ They select the relevant mode opted by the applicant.
- ❖ They are then redirected to the relevant portal.

4.2.3 Functional Requirements

- ❖ REQ 1 : Modes of payments are cash or card.
- ❖ REQ 2 : Payments for different types of application are set the same with provision for change.
- ❖ REQ 3 : If card portals don't work, cash should be accepted.
- ❖ REQ 4 : Payment status must be reflected in the database.
- ❖ REQ 5 : Applicant Contact details are entered in this stage only.

4.3 Uploading Document

4.3.1 Description and Priority

Required documents are provided by the applicant which is then scanned and uploaded into the system by the low-level actor. This feature belongs under PAS.

Priority: Medium

4.3.2 Stimulus/Response Sequences

- ❖ Low level staff is provided with the required list of documents.
- ❖ They check the ones given by applicant.
- ❖ They are then redirected to the upload file page.

4.3.3 Functional Requirements

- ❖ REQ 1 : Documents must be of picture file format.

- ❖ REQ 2 : Any document uploaded to the system should also be following a naming convention connecting it to it's application number.
- ❖ REQ 3 : Low level officer should be informed once the document has been successfully uploaded.
- ❖ REQ 4 : The Documents to be accepted are as follows: Aadhar, Birth Certificate and Marriage Certificate(if the spouse field is filled up)

4.4 Verification of Documents

4.4.1 Description and Priority

Uploaded documents are verified by the Verification officer. This feature belongs under PAS.

Priority: High

4.4.2 Stimulus/Response Sequences

- ❖ Verification officer is shown a list documents submitted under selected application.
- ❖ He marks the necessary fields as verified which have been correctly checked.
- ❖ Step ends when all the provided documents have been verified.

4.4.3 Functional Requirements

- ❖ REQ 1 : Verification officer should check if documents are satisfying each required condition.
- ❖ REQ 2 : If provided document doesn't meet REQ 1, the applicant is informed. This provision is given to the applicant once before they cancel the application.

4.5 Appointment

4.5.1 Description and Priority

Interview of the applicant is conducted by the Interview officer. The Interview officer asks the necessary questions and collects the applicant's biometrics and uploads them into the system. This feature belongs under PAS.

Priority: High

4.5.2 Stimulus/Response Sequences

- ❖ Interview officer is provided with applicant's details.

- ❖ They ask the applicants necessary questions.
- ❖ They collect the applicants' biometrics and uploads into the system.

4.5.3 Functional Requirements

- ❖ REQ 1 : If the applicant does not turn up, Interview officer cancels the appointment which leads to rescheduling. This is allowed upto a maximum of 2 times.
- ❖ REQ 2 : Applicant is asked if the provided information is correct.
- ❖ REQ 3 : Applicant's biometrics are collected and uploaded into the system.
- ❖ REQ 4 : If Applicant does not pass the interview then comment box is provided to mention the reason.

4.6 Address Verification

4.6.1 Description and Priority

Address verification of the applicant is performed by the local law enforcement body, here denoted by the Police actor. This feature belongs under PAS.

Priority: High

4.6.2 Stimulus/Response Sequences

- ❖ Details are sent to the concerned police station.
- ❖ After verification the results are reflected into the system.

4.6.3 Functional Requirements

- ❖ REQ 1 : Police is informed of the passport address to be verified in his area.
- ❖ REQ 2 : Police is provided with the necessary details he needs to perform the check.
- ❖ REQ 3 : If address is not verified then comment box is provided to mention the reason.

4.7 Final Checking

4.7.1 Description and Priority

Verification officer checks the complete passport details finally before sending it off to Use Case 4.8. This feature belongs under PAS.

Priority: High

4.7.2 Stimulus/Response Sequences

- ❖ The status of each stage is checked to see if they have been completed.
- ❖ They check all the details before sending it for printing.

4.7.3 Functional Requirements

- ❖ REQ 1 : Verification officer is shown the applicant's passport details.
- ❖ REQ 2 : They check the details for final time and sends it for printing.
- ❖ REQ 3 : If they think a problem exists, they look at detailed records of previous stages. If problem can't be solved in house, the application is cancelled/ put on hold.

4.8 Print Passport and Post

4.8.1 Description and Priority

The passports to be printed are assigned to the Printer actor. After printing the passports, the Printer actor sends it to the applicants' registered address by post. This feature belongs under PAS.

Priority: High

4.8.2 Stimulus/Response Sequences

- ❖ Details of the passport are sent to the printing authority.
- ❖ The passport is printed.
- ❖ The printed passport is sent to applicant's registered address via registered post.

4.8.3 Functional Requirements

- ❖ REQ 1 : Passport details are sent to the printing authority.
- ❖ REQ 2 : After printing the passport, it is sent via registered post and status is uploaded to the system.
- ❖ REQ 3 : Once post has been delivered, the passport authority is notified and the application is closed.

4.9 Schedule Appointment

4.9.1 Description and Priority

The applicant is informed of his appointment time and date. This feature belongs under PAS.

Priority: Medium

4.9.2 Stimulus/Response Sequences

- ❖ Information Officer is informed of applicants to schedule appointment with.
- ❖ After scheduling said appointment date, it is reflected into the system..

4.9.3 Functional Requirements

- ❖ REQ 1 : Information Officer contacts the applicant and fixes an appointment.
- ❖ REQ 2 : They provide the applicant with available dates and time slots.
- ❖ REQ 3 : The finalised slot should be reflected back into the system.
- ❖ REQ 4 : They decide how to contact the applicant (via email/call).

4.10 View Details

4.10.1 Description and Priority

Requested details are accessed by the Information Officer. This feature belongs under PIRS.

Priority: Medium

4.10.2 Stimulus/Response Sequences

- ❖ Applicant/ Authorised person contacts information officer.
- ❖ They find out what information is needed.
- ❖ After fetching the information, it is given to the enquiree.

4.10.3 Functional Requirements

- ❖ REQ 1 : The Information Officer should provide the steps required for applying for an application to anyone who asks.
- ❖ REQ 2 : The associated costs and the documents required should be informed to the enquiree.

- ❖ REQ 3 : This information can also be provided as a brochure format for easy informing.

4.11 View Status

4.11.1 Description and Priority

Current status of the said application is shown to the Information Officer. This feature belongs under PIRS.

Priority: Medium

4.11.2 Stimulus/Response Sequences

- ❖ Applicant contacts information officer to enquire about his application status.
- ❖ After fetching the current status, it is provided to the applicant.

4.11.3 Functional Requirements

- ❖ REQ 1 : The current status of the application number provided shall be shown to the information officer.
- ❖ REQ 2 : If no application of said number exists, no details shall be shown.

4.12 View Information

4.12.1 Description and Priority

Passport details of the required passport are shown to the Information Officer. This function belongs under PIRS.

Priority: Medium

4.12.2 Stimulus/Response Sequences

- ❖ Information officer receives a request to view passport details.
- ❖ A ticket is issued to register who requires the passport details and why.
- ❖ Passport details are shown to the information officer.

4.12.3 Functional Requirements

- ❖ REQ 1 : The information officer should allow only authorized persons to access the passport information.
- ❖ REQ 2 : A ticket shall always be issued for each access to passport information.

- ❖ REQ 3 : They are allowed to print passport details only after verifying the identity of the requesting authority.

4.13 Staff Management

4.13.1 Description and Priority

To manage staff details by the Admin actor which include creating new user, assigning post, user id and password.

Priority: Medium

4.13.2 Stimulus/Response Sequences

- ❖ Admin chooses to add new staff to the system.
- ❖ They will assign the actor class of the said staff.
- ❖ A new staff will be added to the centre.

4.13.3 Functional Requirements

- ❖ REQ 1 : Client lists this as a secondary feature. Effort should be made only to concentrate on supporting the PIRS and PAS through this.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

- ❖ The system should be able to support more than one staff for each type of actor.
- ❖ It should be able to provide a database for storing the application details for atleast the past 6 months for the volume of applications handled by one centre.

5.2 Safety Requirements

- ❖ No part of the system should be open to unauthorized access.

5.3 Security Requirements

- ❖ Each staff should be shown only those parts of the system that is required for him to perform his duties according to the actor class he belongs to.
- ❖ Access to the system and data is restricted only to the actors mentioned in the UCD as in Appendix B.
- ❖ Passport or Application details cannot be directly modified by the staff once it has been created.

5.4 Business Rules

- ❖ Police is given 14 days to verify the address.
- ❖ An application record should have a type which decides what type of Application (New, Renewal and Update) it is. Here 'New' Application starts with 'N', Application for Renewal starts with 'R' and Application for Update starts with 'U'. The centre from where the application has been created should also be inherent from this number.
- ❖ Applicants are allowed to create an application in the centre that corresponds to their permanent address. This ensures that an applicant can't open a application at different centres at the same time.
- ❖ Appointment dates are to be decided trying to keep the appointments evenly distributed between the working days. This ensures that the staff is not overburdened on one particular date.
- ❖ The passport office that we are dealing with can issue only one kind of passport.
- ❖ On renewal/update, the old passport details are changed and new passports are issued with the same passport number.
- ❖ Each applicant is uniquely identified by their Aadhar number to prevent duplication of applications at the same time.
- ❖ Each applicant is assumed to provide contact info in form of either Phone number/email address.

6. Other Requirements

- ❖ A Logo should be present in the header section of each page.
- ❖ The staffs are provided with a log on screen where on entering their user id and password they are redirected to a screen specific to that actor class that they belong to.
- ❖ Whenever a staff logs in they are shown the list of the tasks that they can accept.
- ❖ Once they have accepted a certain task, they are not shown any other tasks that they can accept until they finish the current task.
- ❖ Document sizes of the files uploaded in Section 4.3 should be between 10KB and 150KB.

Appendix A: Glossary

Abbreviations:

ERD: Entity Relationship Diagram

PAS: Passport Application System

PIRS: Passport Information Retrieval System

TBD: To Be Decided

UCD: Use Case Diagram

Appendix B: Analysis Models

Use Case Diagram Document is present in the same folder named as the following:
“Group 2-Use Case Diagram”

Entity Relation Diagram is present in the same folder named as the following: “erd”
The ERD is undergoing changes as required.

Data Flow Diagram(with dotted lines representing the control flow) is present in a folder named “DFD”. All the DFD’s are explained in there.

Appendix C: To Be Determined List

<i>No</i>	<i>Section</i>
<i>1</i>	<i>Page Numbers to be checked after each revision.</i>
<i>2</i>	<i>3.1 User Interfaces to be updated to reflect final product</i>