Software Requirement Specification

TOPIC

TRANSPORT MANAGEMENT SYSTEM

SUBMITTED BY:

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Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

The purpose of this "Software Requirement Document" is to give in-depth description of the requirements for the "Transport Web Application". It will illustrate the purpose and complete declaration for the development of system. It will also explain system constraints, interface and interactions with other external applications. This document is primarily intended to be proposed to a customer for its approval and a reference for developing the first version of the system for the development team.

1.2 Document Conventions

The document was being prepared using Microsoft Word 2022, font-type of "Times New Roman" and font size used in this document is 13pt. The bold property is used to set the headings of the document. Every topic, image and data table are numbered and referred to the in the main text

Standard IEEE template is used to organize the appearance of the document and its flow.

1.3 Intended Audience and Reading Suggestions

The main target of this document would be client and users i.e. consultant, receptionist, etc. Project manager, Supervisor, and coders with objective of examine the information of Transport Web Application. This SRS document will be helpful in related to project requirements and proposed solutions. This document will draw the actual picture of what system is going to be built to both project wing and client. Using ER, User Case diagrams and GUI's which are in a form where everyone can understand. How the interfaces finally appear

1.4 Product Scope

Currently, Mirani transport is using manual system to handle the transport process. Every operation was being done manually. As system is file-based, as management face difficulties to save records. It causes an issue for organizing information and processing operations.

As Transport Web Application will be covering all basic processes that will resolve the issues that are being faced by management. This Transport Web Application will move around Admin, Driver and students along containing information related to business. It would helpful to reach your services info to your clients with the management of records of business operations.

Our goal is to make a client satisfied system by full filling the client requirements and improving the current manual system with client needs.

1.5 References

[2]Lauesen, S, (2003), *Task Descriptions as Functional Requirements*, IEEE Computer Society,

Available:http://www.itu.dk/~slauesen/Papers/IEEEtasks.pdf

2. Overall Description

2.1 Product Perspective

Mirani Transport follows manual system. All operations done manually in written form, which exist issues related to efficiency and reliability.Due to this manual system, customer are unable to reach out them. This manual system creates many issues in accessing of required information related to services and managing present data. This manual system also required storage facilities.

This automated Web application which will be developed to resolve the issues by improving reliability, efficiency and performance. There will be database to store patient and employee records. This system will facilitate the convenient management of activities of the hospital.

2.2 Product Functions

2.1.1: Students Records:
1. Add Students
2. Update students info.
3. Delete And Search students.
4. Assign student ID

2.1.2: Driver Records:
1. Update or add Driver

2.1.3: Finance:
1. Update daily expenses
2. View payments
3. Expenses manage
4. Enter Payments

5. Fees alert

2.1.3: Complains:
1. Send complain to admin

2.1.4: Routes:
1. Add routes
2. Manage routes

2.3 User Classes and Characteristics

- **Admin**

  Admin has the executive control over the system.he/she can

  1. CRUD students
  2. View fees update
  3. Reply to complains
  4. Monitor or crud expenses

- **Driver**

  Driver can

  1. Enter fee amount

- **Student**

1. Student can complain

2.4 Operating Environment

Software requirements

- Windows XP or above operating system
- XP

Hardware Requirements

- Core duo processor
- 2GB Ram (4GB advisable)

2.5 Design and Implementation Constraints

- System is wirelessly networked with an encryption
- System is only accessible within the hospital premises only.
- Database is password protected.
- Should use less RAM and processing power.
- Each user should have individual ID and password.
- Only admin can access the whole system.
- Should consume less internet.
- Failure rate must be less than 01 time/10 years.

2.6 Project Documentation

Software Life Cycle Phase	Documentation	Intended Activities
Requirement Gathering, Analysis and Specification	● Project charter ● Project proposal ● Software Requirement and Specification (SRS) which includes ✓ Entity relational diagram ✓ Data flow diagrams ✓ Use case diagrams ✓ Use case scenarios	Includes the customer expected software features, constraints, interfaces and other attributes. Moreover the objectives and the benefits gained through the system are clearly specified
Software Design	● Software Design Description(SDD)	Describes the logical basis of design decisions taken and how it will pave way in acquiring the requirements of the customer through the software

Implementation	● Technical Documentation	Contains information regarding the implementations of the system using the programming concepts
Software Testing	● Software Test Documentation(STD)	Includes information degrading testing procedures to validate and verify the software results. Main types of testing techniques are unit testing, integration testing, system testing and acceptance testing
Maintenance	● User Documentation	Includes manuals for the end users according to their position of access levels

2.7 User Documentation

As a part of the system itself a user documentation is provided to the customers which gives or include

- ✓ overview of the system
- ✓ full description about the product
- ✓ complete orderly followed steps to install the software
- ✓ email addresses to contact us in need.
- ✓ Tasks are listed alphabetically often using cross referenced indexes.
- ✓ section of solution to troubles
- ✓ Step by step guide sectionally divided for each type of user.

2.8 Assumptions and Dependencies

- ✓ Each user must have a valid user id and password
- ✓ User id and password provided by registered email only.
- ✓ Server must be running for the system to function

- ✓ Users must log in to the system to access any record.
- ✓ Only the Administrator have the executive control of system.
- ✓

3. External Interface Requirements

3.2 Hardware Interfaces

- **Laptop/Desktop PC:**
  Simple Core duo Processor with 2 Gb ram
- **Display Unit (LED/LCD):**

➢ Display is for to display the product.

- **Wi-Fi router**

➢ Wi-Fi router is used to for internetwork operations inside of a hospital and simply data transmission from pc's to sever.

3.3 Software Interfaces

- **Developing end**
  - ✓ Visual studio code

- **Client End**

✓ OS – Windows 10- Very user friendly and common OS **(minimum windows 7)**
✓ Chrome –**97.0.4692.99**

Other Nonfunctional Requirements

5.1 Performance Requirements

- Capacity-The system must support 1000 people at a time
- User interface- User interface screen will response within 5 seconds.

5.2 Safety Requirements

If there is extensive damage to a wide portion of the database due to catastrophic failure, such as a disk crash, the recovery method restores a past copy of the database that was backed up to archival storage and reconstructs a more current state by reapplying or redoing the operations of committed transactions from the backed up log, up to the time of failure.

5.3 Security Requirements

All the administrative and data entry operators have unique logins so system can understand who is login in to system right now no intruders allowed except system

administrative nobody cannot change record and valuable data.

5.4 Software Quality Attributes

- AVAILABILITY: The system shall be available all the time.
- CORRECTNESS: A bug free software which fulfill the correct need/requirements of the client.
- MAINTAINABILITY: The ability to maintain ,modify information and update fix problems of the system
- USABILITY: software can be used again and again without distortion.
- ACCESSIBILITY: Administrator and many other users can access the system but the access level is controlled for each user according to their work scope.
- ACCURACY: The reliability on the information/output. Can depend/be sure of the outcome.
- STABILITY: The system outcome/output won't change time to time. Same output will be given always for a given input.

5.5 Business Rules

- Want take the responsibility of failures due to hardware malfunctioning.
- Warranty period of maintaining the software would be one year.

- Additional payments will be analysed and charged for further maintenance
- If any error occur due to a user's improper use. Warranty will not be allocated to it. No money back returns for the software.
- Trust bond placement should be done before designing and coding. An advance or an Agreement.