

SOFTWARE REQUIREMENTS SPECIFICATION For University Transportation Portal

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Revision History

Name	Date	Reason	Version

1. Introduction

1.1 Purpose

The Purpose is to specify all the software requirements for the Transportation Portal.

1.2 Document Conventions

Db	Database
ER	Entity Relationship

1.3 Intended Audience and Reading Suggestions

This product is restricted within the college premises. This has been implemented under the guidance of college professors. This product helps both management and students.

1.4 Product Scope

This Product consists of two compartments namely cady, university bus. Both Cady and University bus will have 3 interfaces passenger, driver, manager.

2. Overall Description

2.1 Product Perspective

This product is mainly to help the students and staff in our university to know the location of cady's, buses and also availability of city buses. We can take information from the drivers of cady's and buses and show use it to inform the passengers.

2.2 Product Functions

The product should be able to catch the live location and also to estimate the arrival time.

2.3 User Classes and Characteristics

The product should have 3 user classes, passenger, driver, manager. Passenger can only view the information of live location and estimated time. Driver can only update the information about his vehicle. Manager can access the information about route, driver, cady.

2.4 Operating Environment

The website will be operate in any Operating Environment – Mac, Windows, Linux etc

With a requirement of a web browser for smooth operation of website.

2.5 Design and Implementation Constraints

This product has to be launched by the time software engineering lab course ends, so you hardly have 15 days time left. This product should be effectively feasible even for the use of huge number of users at a time.

2.6 User Documentation

Along with the software product, a user manual would be written to help people understand the working methodology and usage of the developed prototype system. It would be written for nontechnical individuals and the level of content or terminology would differ considerably from, for example, a System Administration Guide, which is more detailed and complex. The user manual would follow common user documentation styles capturing purpose and scope of the product along with key system features and operations; step-by-step instructions for using the system including conventions, messaging structures, quick references, tips for errors and malfunctions; pointers to reference documents; and glossary of terms.

3 External Interface Requirements

3.1 User Interfaces

When any user opens the website he should be able to signup if he is a first time user, if he is not then he should be able to login using his credentials, password should be encrypted in the database. The driving staff should be given predefined email-id and should allowed to change their password, when the user enters his credentials the login page should be able to differentiate passenger, drivers, manager and open the home page accordingly. So the product should have these 3 user interfaces.

3.2 Hardware Interfaces

Since the application must run over the internet, all the hardware shall require to connect internet will be hardware internet for the system. As for e.g, Modem, WAM – LAN, Ethernet Cross-Cable.

3.3 Software Interfaces

Software Used	Description
Windows Operating System	We have choosen Windows operating system for it's best support and user frendliness
Xampp	We prefer Xampp database.
PHPMysqladmin	To make this product we choose php my admin software for the backend purpose.

4 System Features

4.1 System Feature 1

4.1.1 Description and Priority

The system needs high priority when data is to be updated. Any driver should never be allotted to more than one vehicle.

4.1.2 Stimulus/Response Sequence

Updation of data by drivers should be of quick response.

4.1.3 Functional Requirements

Number of Modules

After careful analysis the system has been identified to have the following modules:

1. Administrator Module:

This module provides administrator related functionality. Administrator manages all information and has access rights to add, delete, edit and view the data related to places, travels, routes, bookings etc.

2. Transportation Module:

This module provides the details of various transportation available. A user can select the appropriate transport depending on accessibility.

3. Routes Module:

This module provides information related to various routes connecting sources and destinations. For each route, information such as source, destination, fare, reservation details, pick up points etc are provided. Only administrator can add, delete, edit and manage the data. Users can only view the information.

4. Testimonial Module:

Users of this application can post their opinions, complaints and suggestions regarding this portal and services to the administrator.

Accordingly, the administrator can take various steps to act on the complaints and suggestions.

5 Other Non-functional Requirements

5.1 Performance Requirements

1. User's query should be answered immediately.
2. Data updation should be instant.

5.2 Safety Requirements

All system data should be backed up every 24 hours and the backup copies stored in another server stored in different building or location for disaster recovery.

5.3 Security Requirements

All actions of the users are personalised and secured with authentication like password and using OAuth for gmail and some other OAuth providers.

5.4 Software Quality Attributes

The quality of the software is maintained with constant interaction with the users, so that all requirements are fulfilled and website is constantly added with new features based on the demand.

Database Tests, unit and integration tests along with UI tests are required.

5.5 Business Rules

Business rules are designed based on the institute guidelines and the product will be used based on predefined protocol.

6 Other Requirements

No other requirements needed.

6.1 Appendix A: Glossary

1. Db- Database
2. SMTP- Simple Mail Transfer Protocol
3. WAN- Wide Area Network