

Software Requirements Specification

Problem Statement: To collect software requirements and create software requirement specification.

SOFTWARE REQUIREMENTS: Ms Word.

1. Introduction

1.1 Purpose Basic Description of the Problem

Purpose of the SRS is to give the detailed documentation of the services, hardware and software requirements and users of the Online Hall Ticket Generation System.

1.2 Scope:

The purpose of this specification is to document requirements for a system to manage online generation of hall ticket. The specification identifies what such a system is required to do. The specification is written in a format conforming to the IEEE Standard 830- 1984. Subject to approval, the specification will complete the Requirements phase and will be followed by detailed design, implementation, and testing.

1.3 Definition, Acronyms, and Abbreviations:

GUI - Graphical User Interface

OHG – Online Hall ticket Generator

SPD – Student Personal Details

1.1 References

1. IEEE Std 830-1998: IEEE Recommended Practice for Software Requirements Specification
2. J. Peters, and W. Pedrycz, Software Engineering – An Engineering Approach. New York, NY: Wiley, 2000.
3. D. P. Gilliam, T. L. Wolfe, J. S. Sherif, and M. Bishop, "Software Security Checklist for the Software Life Cycle," in Proc. WETICE'03, 2003, pp. 243-248.

4. A. D. Rubin, "Security Considerations for Remote Electronic Voting," CACM, vol. 45, pp. 39-44, Dec. 2002.

1.4 Overview:

The project aims to bring in a centralized system that will ensure the activities in the context of an examination that can be effectively managed. This system allows students to enroll themselves into the system by registering their names or by their sharing details. This is done by providing their personal and all the necessary details like Name, examination, mobile number, signature, picture etc. The provided details are then entered into the system to create their hall tickets. After creating the Hall ticket, the system provides the students the facility of viewing or can download.

2. General Description

2.1 Product Perspective:

The Online Hall Ticket Generation System is maintained by the examination branch of the college.

2.2 Product Function:

This software is useful in many ways. With this the students do not have to wait in a long queue near the examination branch. This eases the process of generating and collecting Hall tickets.

2.3 User Characteristics:

There are three different types of users for OHG:

Type 1. The Principal, who is most familiar with the problem domain. He holds some knowledge of basic computer operations and applications such as Microsoft Word, Excel, and PowerPoint. He has some education in computer science, which allows him to adapt to new systems quickly. The Principal is the only person who will have the authority.

Type 2. Administrative Clerks, who handle data entry for the SMS system. They have data entry training from college. Administrative Clerks are familiar with basic computer operations. They take student information and enter into the database.

Type 3. Students, who use this whole system but cannot modify any information.

Based on the above categorizations, in order to meet user's needs the following precautions should be taken:

- the interface should be designed with the computer novice in mind.

- data entry masks should recognize and correct improperly entered data.

- for deleting or revising a record the system should ask the users for confirmation

- error messages should be provided.

the interface should be easy to understand.

2.4 General constraints

The following constraints will limit the developer's options for designing the system:

the budget for this project is twenty lakhs.

implementation is required within 10 weeks.

3. Specific requirements:

3.1 Functional Requirements

R 1. Data Management Subsystem

The Data management subsystem requirements are concerned with the management of user information. They specify how User information can be managed and manipulated.

R 1.1 The OHG shall allow the user type 1 or 2 to approve the user information to the system.

R 1.1.1 The OHG approves through college details.

R 1.2 The OHTG shall allow the user type 1 or 2 to remove user information from the system.

R 1.3 The OHTG shall allow the user type 1 or 2 to update other users information.

R 1.3.1 The OHTG shall allow the user type 1 or 2 to update user information (name, address, roll number, email, date of birth, ...).

R 1.4 The OHTG shall allow all user types to retrieve User information by Roll number, name, branch etc

R 1.5 The OHTG shall manage the different exam fees and related information.

R 1.6 The OHTG should manage the payments method.

R 2. Student Enrolment Subsystem:

The student management subsystem requirements are concerned with the management of student information.

R 2.1 The OHTG shall allow the user type 1 and 2 to update student personal information.

R 2.2 The OHTG shall store all student history information from starting to end of the school studies.

R 2.3 The OHTG shall allow all user types to retrieve student personal information by student ID.

R 2.4 The OHTG shall allow users of type 3 to download the hall ticket once they have made the payment.

3.2 Performance Requirements

R3 The OHTG shall respond to the user's retrieving information quickly. The waiting time for any retrieve operation must be under 2 seconds.

R4 The OHTG shall make all the payments quickly.

R5 The OHTG shall allow the users to download their hall ticket within no time.

3.3 Non-Functional requirements

R 6 Security

The security requirements are concerned with security and privacy issues. All student information is required by law to be kept private.

R 6.1 The OHTG shall support different user access privileges.

R 6.2 The OHTG shall protect student information.

R7. Maintainability

The maintainability requirements are concerned with the maintenance issues of the system.

R 7.1 The maintenance time of OHTG shall be done regularly.

R 7.2 System down time for maintenance should be less than 6 hours per quarter of a year.

R7. Scalability

The scalability requirements are concerned with the scalable issues of the system.

R 7.1 The SMS shall be able to scale up to support more workstations. System performance shall not degrade if up to twenty percent (20%) more workstations are added

3.4 Design Constraints:

The general constraints for developers are:

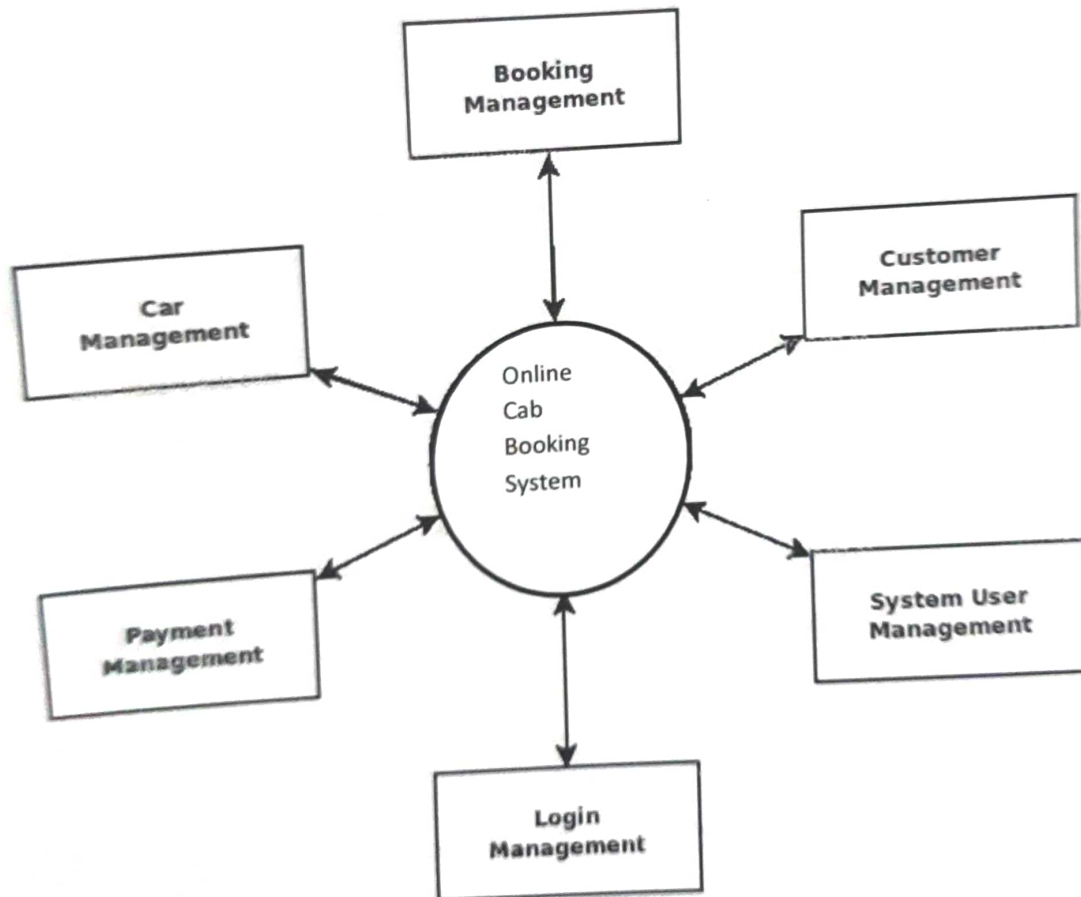
R8 They should keep the user interface simple so that everyone finds it easy to use.

R9 They should display all the available options.

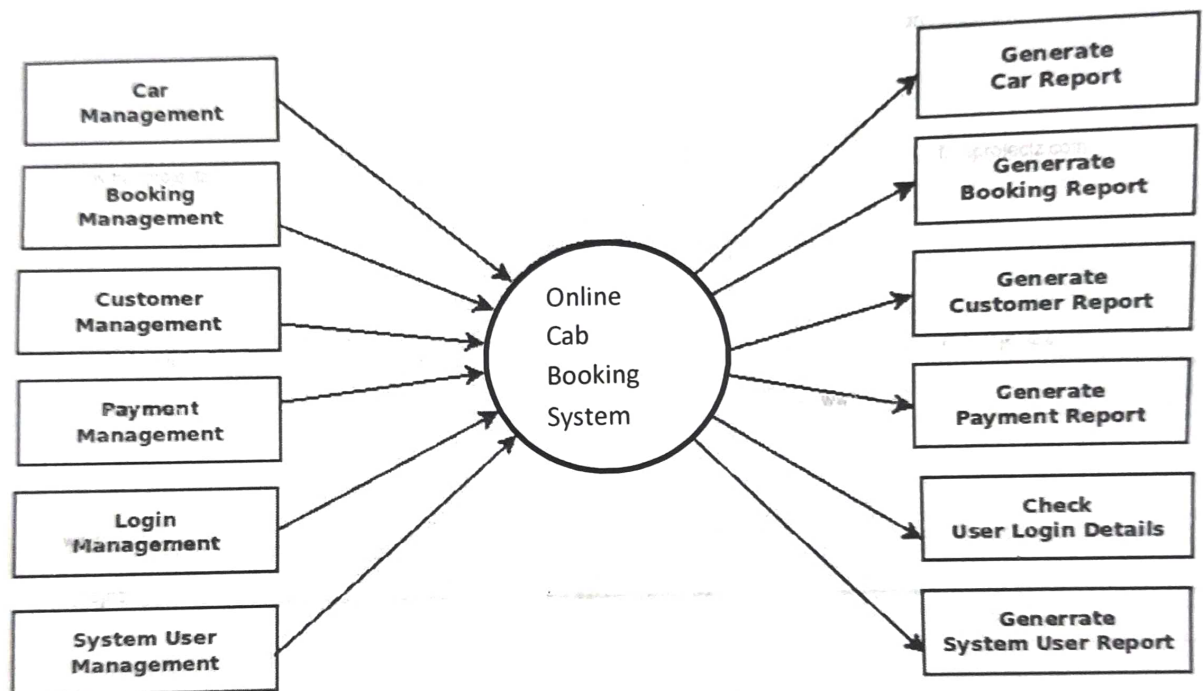
R10 They must allow the user to register for the main as well as supplementary if they have any backlogs.

R11 After registering, the user should be able to view or download their hall ticket.

Level 0 (Context Level IDFD)



Level 1((HighLevelDiagram)



Level 2(Unified level Diagram)