Software Requirements Specification (SRS)

On (BarBar shop)

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Software Engineering Design Capstone Project
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Introduction:

This document describes what the Barber Booking System will do and how it will be expected to perform. It also describes the functionality the system needs to fulfill the stakeholders needs. The followings are the section that will cover in this document:

i. Intended Audiences and Intended Use's
ii. Fact-Findings Techniques
iii. Summary of Findings
iv. Business Rules/Logics
v. Modules/Functions

They use this document for:

- Planning and handling the project
- Develop a good site for use.
- Keep the system in good condition and up to date.
- Make sure the work to be done is organized and accurate.
- Understand the flow of the system.
- To get idea how the system will be developing.
- Identify the patterns of the system.
- Provide critical information to teams for keeps everyone on the same page.
- To ensure requirements are fulfilled.
- Help to make decisions about product lifecycle

Chapter 1

Software Requirement Specification

1. Software Requirement Specification:

The complete requirement specification based on the elicitation process is described in this section.

1.1 Functional Requirements:

Functional requirement refers to a mandatory function which is mandatory to the system. It must be able to perform for a web and also all kinds of software systems. All kinds of application systems have some functional requirements. Now, we are showing functional requirements associated with the project.

Functional Requirements (Admin):

FR.A - 01	**Admin Dashboard**
Description	In this module admin can see an overview of this system. Also admin can visit others modules from the dashboard.
Stakeholder	Admin

FR .A- 02	**View barbar list**
Description	In this module admin can view order list which come from customer.
Stakeholder	Admin

FR.A - 03	**Add Barbar**
Description	Using this option admin can add barbar on his site for sale.
Stakeholder	Admin

FR.A - 04	**Manage Barbar & Shop**
Description	In this option admin can manage barbar & shop such admin
Stakeholder	Admin

FR.A - 05	**Check booklist**
Description	Using this feature, the admin can check the booking list.
Stakeholder	Admin

FR.A - 06	**Modify and Update**
Description	This is the one of the important modules , admin can update or modify the system , such as can modify/update people , shop & hair style such as available or not etc.
Stakeholder	Admin.

Functional Requirements (User):

FR.U - 01	**User dashboard**
Description	User can update profile & change password. In this module admin can see an overview of this system. Also admin can visit others modules from the dashboard.
Stakeholder	User

FR .U- 02	**Book Barbar Shop**
Description	From the site, the user can book a barbar with suitable shop of his choice. And using this module user can do that.
Stakeholder	User

FR .A- 03	**View booking list**
Description	In this module admin can view order list which come from customer.
Stakeholder	Admin

FR.U - 04	**Check booklists**
Description	Users have to book a barbar shop to buy choiceable haircut. And in this option user can check his booking list.
Stakeholder	User

FR.U - 05	**Feedback**
Description	In the feedback option the user can give feedback as his wish.
Stakeholder	User

FR.U - 06	**View barbar shop**
Description	Customer can view shop details, services, reviews & ratings, select date & time & book.
Stakeholder	User

Functional Requirements (Barbar):

FR.U - 01	**Barbar dashboard**
Description	Barbar can update profile & change password. In this module admin can see an overview of this system. Also admin can visit others modules from the dashboard.
Stakeholder	Barbar

FR.U - 02	**Check booklists**
Description	Barbar have to check a user choiceable haircut. And in this option user can check his booking list.
Stakeholder	Barbar

FR.U - 03	**Feedback**
Description	In the feedback option the Barbar can give feedback as his wish.
Stakeholder	Barbar

1.2 Performance Requirements:

To maintain performance of a software system it is very important. To ensure performance, as a developer we need to manage and maintain some steps. Now, I try to discuss perspective by going to enhance the performance of this system project.

1.2.1 Speed and Latency Requirements:

For the software development process it is very important for speed and latency must be ensured while retrieving data from the cloud server.

PR-01	The Landing page will respond within a second
Description	While the user's browsing the system the landing page will show within a second. It also depends on the user's internet connection.
Stakeholders	Admin, User

1.2.2 Precision and Accuracy Requirements:

Result of a software system to be to the end user must be needed to be accurate. Wrong information might ruin the whole business process.

1.2.3 Capacity Requirements:

We must develop a system which is capable of handling users, providing accurate information, handling databases.

PR-02	Initially the system will store huge barbar & user information
Description	The information admin and user will be stored in database.
Stakeholders	Admin, User.

1.3 Dependability Requirements:

The term dependability is measured based on four dimensions. Such as:

- Availability
- Reliability
- Safety
- Security

When we want to say our system is dependable and safe then we can fulfill the four above dimensions. We also want to say that there is no way to make any kind of mistakes in our system. Besides that, it is also very important to limit the damage which might be caused by system failure.

1.3.1 Reliability and Availability:

Now, I will mention requirements which are related to reliability and availability.

DR-01	The system must be available 24x7
Description	The system must be available 24 hours in a day The system must be updated regularly The system must update barbar, user, shop information and shop performance when needed .
Stakeholders	Admin, User

1.3.2 Robustness and Fault Tolerance Requirements:

To ensure robustness and fault-tolerance facilities to the end users, it is urgent to ensure 0% crush. Moreover, it must show accurate results.

DR-02	The system handles over access and system errors
Description	Sometimes multiple users can over access this system. The system can handle multiple user access
Stakeholders	Admin

1.3.3 Safety Critical Requirements:

There is client information and accounts information are safety critical requirements in our software.

1.4 Maintainability and Supportability:

It is very important to provide after service support to the end users.

1.4.1 Maintenance Requirements:

MS-01	The system helps to update any information in any time
Description	The admin can enable to change or update any information in any situation
Stakeholders	Admin

1.4.2 Supportability Requirements:

Supportability requirements may have related to some extent. Like:

- Testability
- Extensibility
- Adaptability
- Maintainability
- Compatibility
- Configurability
- Serviceability
- Install ability

Our application meets all of the above requirements related to supportability.

1.4.3 Adaptability Requirements:

There are no specific adaptability requirements.

1.5 Security Requirements:

Software security is very much important for making software. Requirements of software security are very important. As an accounts and clients information maintenance system all kinds of data is sensitive and authentic. Enforces the security of an application system of the software security. We write some security related requirements is given below:

- Signing multiple users in one platform.
- Get accesses according to logged in users.
- Set points to the drivers without having any issue.
- Signing out as an admin & accounts officer.
- Handling encrypted passwords.

1.5.1 Access Requirements:

Our software application system accessing, there remains some authentication and authorization techniques. Every module of this application system will provide the techniques. Now, I will provide an explanation below

SR-01	The system provides security strategies.
Description	The system is designed in a way that allows all features to access a mechanism that provides security services.
Stakeholders	Admin, Barbar, User

1.5.2 Integrity Requirements:

To protect credentials of users from being stolen, all passwords are stored in encrypted form. The Requirements significantly reduces the value of stolen user credentials, it's not easy to decrypt the password.

1.5.3 Privacy Requirements:

The system provides a protection of the database in the server. However, the system will have to increment this level of protection because of the personal data mode available on the system & the larger share of people that will be having access to it through the system's registration. The user's privacy will be granted by the limited access that the login process is going to give to the database.

SR-02	All data will be protected
Description	The main requirement in the context is the generation of barbar and user information.
Stakeholders	Admin, User

2.6 Usability and Human Integrity Requirements:

When anyone or any company can develop any system, they can try to make the system user friendly and easy to use for the end users.

2.6.1 Ease of Use Requirements:

Our application is easy to use and also easily understandable

UH-01	The system must be usable for information and performance with all associate stakeholders
Description	The system indicates the several possibilities of performance and information of User..
Stakeholders	Admin, User

1.6.2 Understand-ability and Politeness Requirements:

This section describes more requirements of online examinations system to add more features in future:-

UH-02	The features of Barbar Booking Services
Description	The system is more efficient, ease of use, more added features .The system is understand-ability for both users. The system will not use any term that is not specified in this system
Stakeholders	Admin

1.6.3 Accessibility Requirements:

There are no access requirements beside those that have been outlined in the below:

To get access to this system or a specific module the system must provide a central authentication mechanism. In order to prevent anyone from being stolen, all users' passwords must be encrypted in a hash process.

1.6.4 User Documentation:

Every documentation has two types. One is internal documentation which is generally written by the application engineers. This document is prepared to make the development life cycle easier for the system engineers or system analysts.

UH-03	The system developer documentation
Description	To develop this project we have specified requirements for user documentation. The teams are involved to this project documentation
Stakeholders	Admin

1.7 Look and Feel Requirements:

Look and feel requirements mainly refers to how the system will look like and how the user interface or graphical user interface of our system will display to the user.

1.7.1 Appearance Requirements:

Admin & teachers must know which input fields are required and which are not. For that reason, we will use labels for all input fields. Input fields might be text type, radio, checkbox, spinner etc.

LF-01	Labels of mandatory fields must be bold
Description	Labels of mandatory fields must be bold to identify them as being mandatory.
Stakeholders	Admin, User

1.7.2 Style Requirements:

We will provide a web based user interface. This requirement does not only define the necessity to use a css but although the requirements regarding the css content as well as css framework like node js.

LF-02	The look and feel must be controllable using a style sheet.
Description	The styling of the elements of the web based user interface will be defined using css, JS.
Stakeholders	Admin, User

1.8 Operational and Environmental Requirements:

These requirements focus on how the users will operate the system, including interfaces and interoperability with other systems. The requirements establish how well and under what conditions the system must perform.

1.8.1 Expected Physical Requirements:

There are no specific expected physical requirements

1.8.2 Requirement for Interfacing with Adjacent System:

There is no specific interfacing with adjacent system requirements

1.8.3 Release Requirements:

There are no specific release requirements but in the project schedule section it was described briefly.

1.9 Legal Requirements:

Legal requirements mainly mention the terms and conditions for privacy and policy of any organizations. The terms and condition of our application is that, no third party software without cloud is allowed to engage to use our data for their business purpose

1.9.1 Compliance Requirements:

There are no specific compliance requirements for our system.

1.9.2 Standard Requirements:

There are no specific standards requirements for our system.

Chapter- 2

Use Case

2.1. USE CASE

Use case diagrams mainly mention the user and system access level clearly. There are three actors in our system. Each actor plays different roles. And those are already indicated to this use case diagram. This diagram will clarify our system in brief.

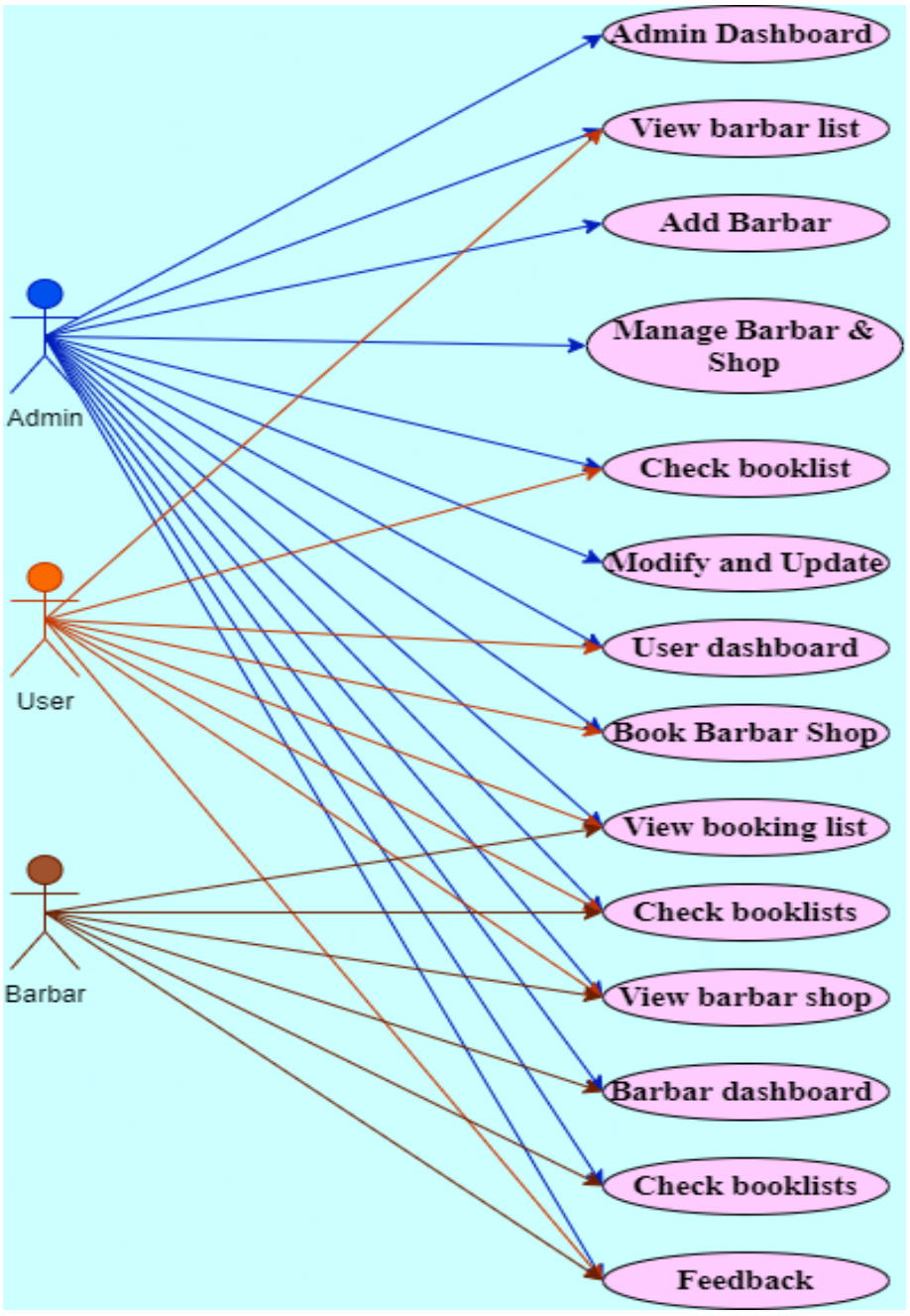

Figure 2.1 Use case diagram

Chapter 3:

Entity Relationship Diagram

3.1 Entity Relationship Diagram (Definition)

An entity relationship diagram (ERD) shows the relationships of entity sets stored in a database. An entity in this context is an object, a component of data. An entity set is a collection of similar entities. These entities can have attributes that define its properties.

By defining the entities, their attributes, and showing the relationships between them, an ER diagram illustrates the logical structure of databases.

ER diagrams are used to sketch out the design of a database.

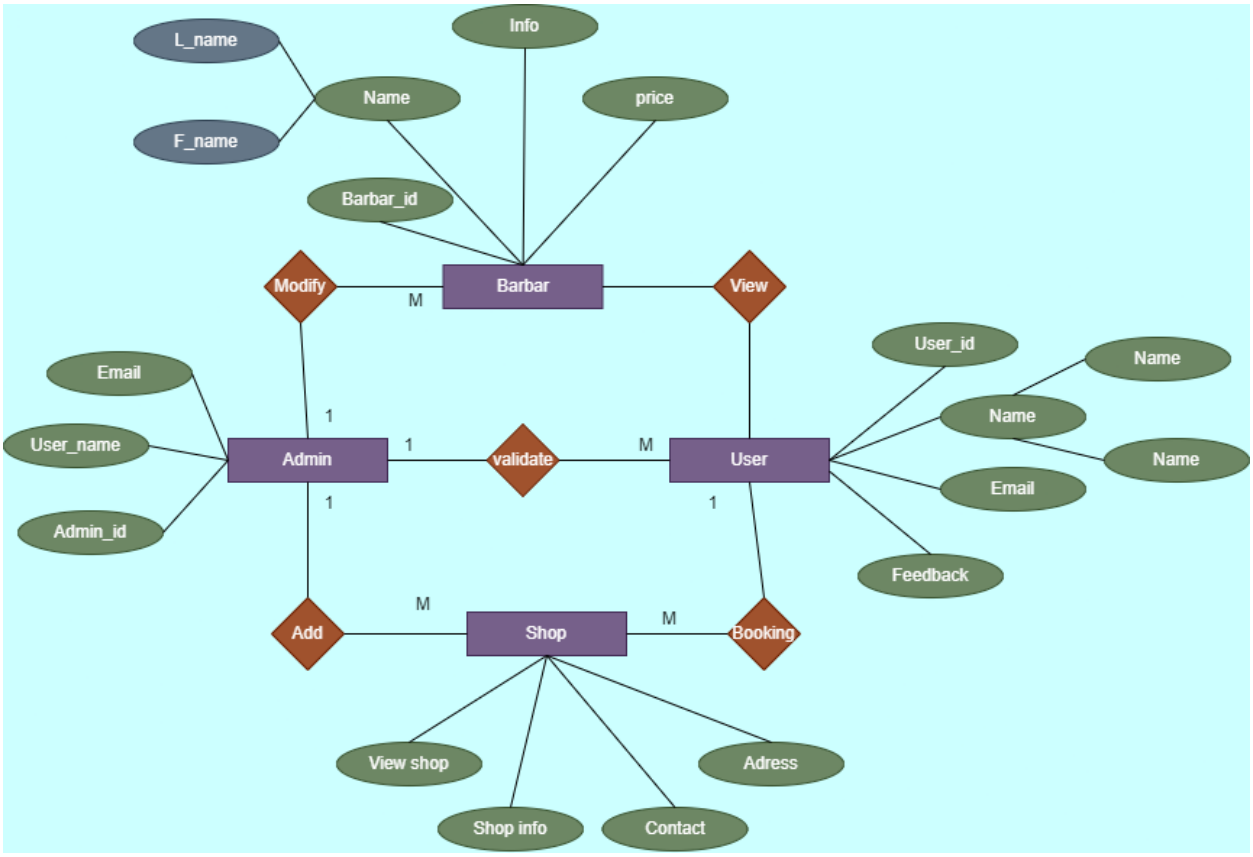

Figure 3.1Entity Relationship Diagram