

# **Project On Salon Management System**



**- Submitted by–  
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**In partial fulfilment of Bachelor of Computer  
Application (BCA)**

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**- Submitted to –  
R. C. Patel Educational Trust's Institute Of  
Management Research and Development, Shirpur.**

**-Affiliated to–  
North Maharashtra University, Jalgaon  
Academic Year 2022–2023**



R. C. Patel Educational Trust's

## Institute of Management Research and Development, Shirpur

Approved by AICTE New Delhi and Affiliated to North Maharashtra University, Jalgaon

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Hon. Shri. Bhupeshbhai R. Patel  
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Prof. Dr. Vaishali B. Patil  
Director

"Quality Education for Nourishing Tomorrow's IT and Management Professionals"

# CERTIFICATE

This is certify that **Mr. Umesh Pravin Patil** student of **Bachelor of Computer Application** has completed his project report work entitled **SALON MANAGEMENT SYSTEM** for **S. N. Salon**, Shirpur, Dist – Dhule under our guidance During the year 2022-2023.

**Date:**

**Place: Shirpur**

**Guide**

**Mr. Pravin Patil.**

**HOD**

**Dr. Tushar R. Patel.**

**Examiner 1 :-**

**Examiner 2 :-**

# DECLARATION

I am here **Mr. Umesh Pravin Patil** student of **Bachelor of Computer Application** of RCP IMRD College, Shirpur. I stated that the project is original contribution there is no any duplication of other project. All information specified in project is correct and true. All information gathered from owner of **S. N. Salon**, Shirpur and using some references books and websites. Detail information in outline stated by me.

**Signature**

**Mr. Umesh Pravin Patil**

# **S. N. SALON, SHIRPUR**

**Address: Near Manas Hotel, Pitreshwer Colony, Nimzari Naka,  
Shirpur, Maharashtra, 425405**

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## **CERTIFICATE**

This is to certify that Mr. Umesh Pravin Patil Student of **Bachelor Of Computer Application** part from **R. C. Patel Trust's Institute of Management Research** and Development Shirpur (Dist–Dhule) have Successfully completed his project work on “**Salon Management System**” for **S. N. Salon**, Shirpur. System performance and requirements meets up to date as per our requirement.

**Owner  
Sandip Nikam,  
S. N. Salon,  
Shirpur.**

# **ACKNOWLEDEMENT**

I take this opportunity to express my sincere thanks to Timeless Travels service, Shirpur for providing me an opportunity to work in the organization. I also express my gratitude to Mr. Sandip Nikum Sir (Owner) S. N. Salon. Mr. Sandip sir gave me the opportunity to work for Sai Balaji Travels. His prudent ideas of work, keen interest in developing the system and constant effort were a great source of inspiration for us me. He not only guided us on the technical aspect but his acknowledgement of marketing strategies helped us in broadening our perspect.

I am thankful to **Prof. Dr.Vaishali B. Patil. (Director), Prof. Mr. Tushar R. Patel (Head Dept. of BCA) and Prof. Mr. Pravin Patil (Project Guide)**, R. C. Patel Institute of Management Research and Development, Shirpur for giving me valuable guidance and encouragement during our course. I am thankful to the college staff for their constant encouragement.

Last but not least, I am thankful to all people who directly or indirectly contributed to make this project a success.

**Thanks & Regards,**  
**Umesh Pravin Patil**

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# Chapter 1

# Introduction

## 1.1 Introduction of Project:-

**Salon management system** is a one of the desktop base application. This application used by all small and medium shop. It is used to keep and manage the customer details along with purchase and bill details. **Salon management system** is easy to use and completely installation based. Application also provide the add-on facility of manage supplier details.

The application also generates date wise reports with the help of reports we can focus on stock and regular customers. It is beneficial to manage customer grow our business. The overall purpose of the application is to regular billing of customers and Appointment.

## 1.2 Introduction of Organization:-

My project is based on **Salon management system**. The “S. N. Salon ” is situated in Shirpur dist. Dhule. It was running since 5 years. The shop provides all type of Services. It deals with customer’s maintenance, generating invoice, receiving a appointment. But these all are procedure can take lot of time so, it can be tried to handle all the transaction in computerized manner.



## Chapter 2

# Need of System

### 2.1 Need of the Project:-

As a Hair Stylist, getting Published or Famous is probably pretty high up on your list of priorities. While social media is a great tool to connect and engage with your audience it's not great when comes to actually doing business. Let's say you're a Professional Hair Stylist with a significant following on Instagram or On Other Social Media Platform. You'll be visiting Portland in a couple weeks and offer your followers the chance to book a Appointment for Hair Cut during your time there.

Now let's imagine the same scenario but with a Salon website. People visit the link and get all the information they need about the Hair cut or our other Services and will contact you for further information or Book Appointment, which will show them the available time and date, ensuring a smooth and headache free process for everyone.

## Chapter 3

# System Study Analysis

### 3.1 Information Gathering:-

Investigation of system is the first step while designing a system. This is the way to handle user needs. We consider following main things:-

1. How the present system works.
2. Time taken to process through the system.
3. Type of transaction.
4. List of documentation.
5. File report associate with system.

From the available documents we get the basic idea about fundamental of system as well as input transactions of Timeless Cafe. In the next step we have about existing system and collected information about input and transaction.

### 3.2 Existing System:

- The manual system consumes .Human time and energy is respective task.
- Team requirement for validation and updating in manual system is more.
- Report processing is not in times instances required.
- Calculation mistake in figure may occur, it cause of loose.
- Maintaining reports manually is very critical, tedious and time consuming.

### **3.2 Drawbacks or Limitations of Existing System:-**

- All record maintain manually.
- Difficult to find out which customer appointment what rate for a particular module.
- Difficult to find available module.
- It is time consuming process.
- Due to documentation security will not maintained.

### **3.3 Objective of Proposed Project:-**

- Eliminate the paper-based work use at the Salon premise such as, usage of diaries to note down appointment details, writing manual invoices for the payments done by the Customers etc.
- Eliminate the data redundancy; keeping appointment details at several places (Diary, mobile etc.) by several people (Owner, Customers etc.).
- Abolish the wastage of time, resources, efforts and money of the Employer, Employees and Customers (Stakeholders).
- Improve the efficient and effectiveness of the Salon management activities, services and processes like maintaining Customers Appointments and Payments etc.
- Ease the management and decision making while improving Salon's good name.
- Improve the Client satisfaction and Employee satisfaction.
- Enhance the Stakeholder integration.

### **3.4 Scope of Proposed Project:-**

- Providing the facility to registering regular Customers and maintaining their details.
- Facilitate appointment handling.
- Facilitate admin Dashboard handling (Service List, about us, contact us, Invoice).
- Handling Salon Services along with their respective prices, hours etc.
- Generating invoices through the system.
- Generating reports to support the higher managerial decisions.
- Maintaining an information centre (dashboard).
- Notify Appointment Status through emails.

## Chapter 4

# Feasibility Study

### Feasibility Study:-

Feasibility study is second stage in system development life cycle. A flexibility study is a test of system proposal according to the violability, impact on organization ability to meet and effective use of resources.

➤ Feasibility study involves

1. Economical feasibility study.
2. Technical feasibility study.
3. Behavioral feasibility study

#### **4.1 Economic feasibility study**

Cost benefit is the most commonly used procedure for these feasibility benefits and saving are from proposal system and compared with cost.

Different types of cost are considered:

1. Manpower.
2. Hardware.
3. Operating.

### **1. Manpower:**

Cost proposed system can be easily communicate with department such as production planning and inventory control department so that less manpower is required to maintain system.

### **2. Hardware Cost:**

Company has computerized network system, so hardware cost is buying and maintain visual basic.

### **3. Operating System:**

Company has sufficient manpower that can operate very easily, so that operating cost of our proposed system.

## **4.2 Technical Feasibility Study**

In technical feasibility a study of function. Performance and constraints that many affect the acceptable system are considered. Technical feasibility centers round the exiting computer system and what to extend it can support proposed system.

In the proposed system, networking is required which is already available with company and software requirements are visual basic Microsoft access, which company has to buy.

## **4.3 Behavioral Feasibility Study**

Generally people are inherently changed and computer had been known to feasibility change. Behavioral feasibility deals with how strong a reaction the user staff is likely to words development of computerized system. Is there, any proper system from management for user? Have the user been planning and developing proposed system.

## Chapter 5

# System Development

### 5.1 Operating Environment:-

Operating System	Window 10
Hard Disk Drive	1 TB
Processor	Dell with Radeon R4 Graphics
Programming Environment	PHP
Version	Visual code & xampp
Back End	MySQL
Front End	Css, html, javascript, bootstrap
Report	Crystal Report

### 5.1 Introduction of PHP:-

The term PHP is an acronym for *PHP: Hypertext Preprocessor*. PHP is a server-side scripting language designed specifically for web development. It is open-source which means it is free to download and use. It is very simple to learn and use. The files have the extension “.php”.

Rasmus Lerdorf inspired the first version of PHP and participating in the later versions. It is an interpreted language and it does not require a compiler.

- PHP code is executed in the server.
- It can be integrated with many databases such as Oracle, Microsoft SQL Server, MySQL, PostgreSQL, Sybase, Informix.
- It is powerful to hold a content management system like WordPress and can be used to control user access.

- It supports main protocols like HTTP Basic, HTTP Digest, IMAP, FTP, and others.
- Websites like [www.facebook.com](http://www.facebook.com), [www.yahoo.com](http://www.yahoo.com) are also built on PHP.
- One of the main reasons behind this is that PHP can be easily embedded in HTML files and HTML codes can also be written in a PHP file.
- The thing that differentiates PHP from the client-side language like HTML is, PHP codes are executed on the server whereas HTML codes are directly rendered on the browser. PHP codes are first executed on the server and then the result is returned to the browser.
- The only information that the client or browser knows is the result returned after executing the PHP script on the server and not the actual PHP codes present in the PHP file. Also, PHP files can support other client-side scripting languages like CSS and JavaScript.

## 5.2 Introduction to MySQL

MySQL tutorial provides basic and advanced concepts of MySQL. Our MySQL tutorial is designed for beginners and professionals.

MySQL is a relational database management system based on the Structured Query Language, which is the popular language for accessing and managing the records in the database. MySQL is open-source and free software under the GNU license. It is supported by **Oracle Company**.

Our MySQL tutorial includes all topics of MySQL database that provides for how to manage database and to manipulate data with the help of various SQL queries. These queries are: insert records, update records, delete records, select records, create tables, drop tables, etc. There are also given MySQL interview questions to help you better understand the MySQL database.

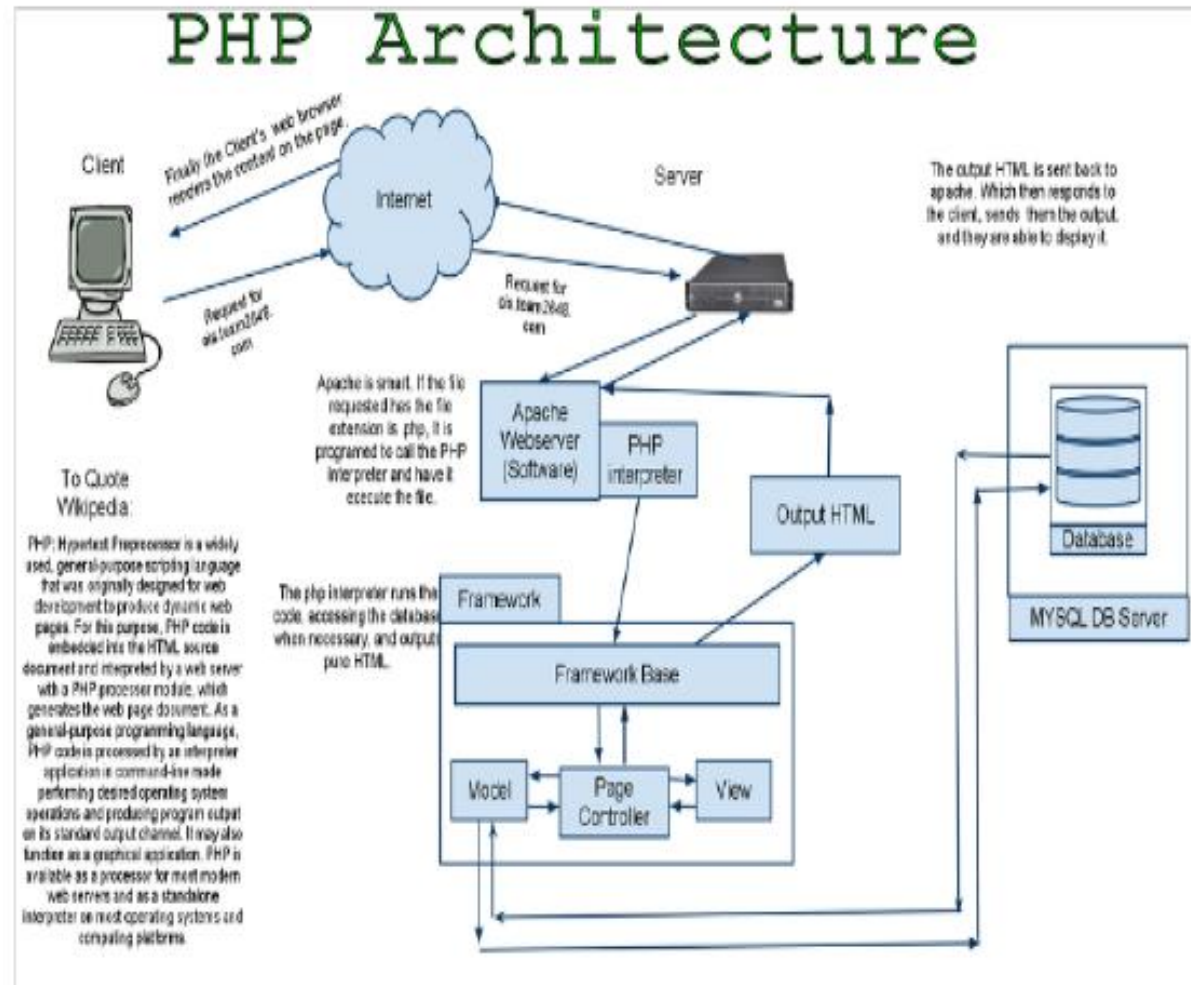


# Chapter 6

## Detail Design of Proposed System

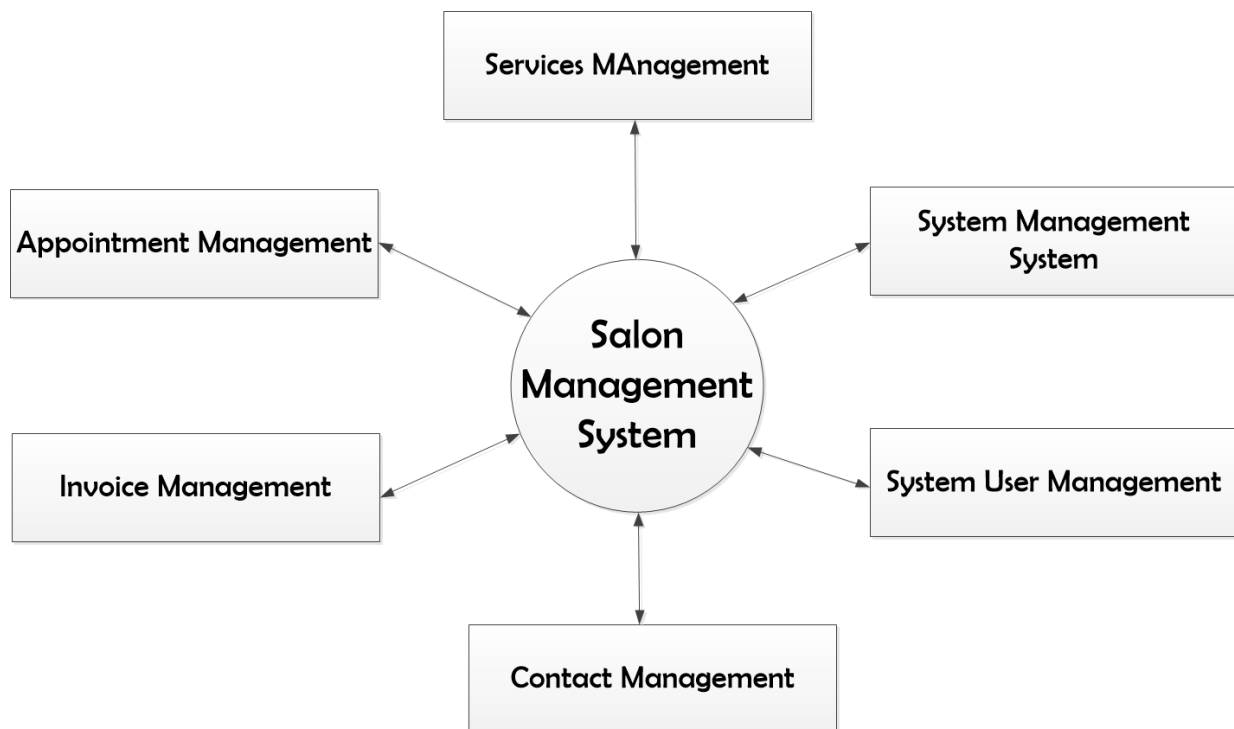
### 6.1 System Features

#### 6.1.1 Use Case Diagrams:-

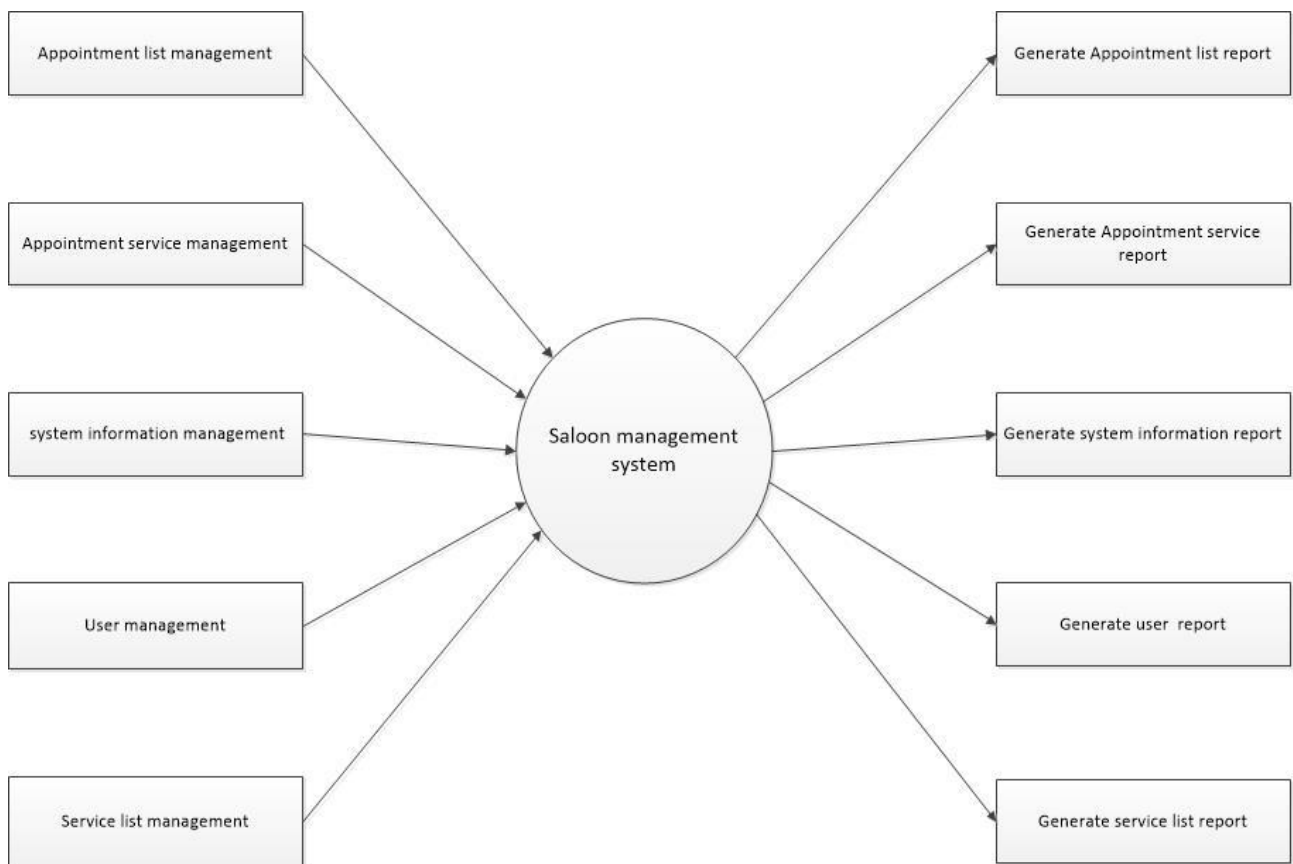


## 6.1.2 Data Flow Diagrams:-

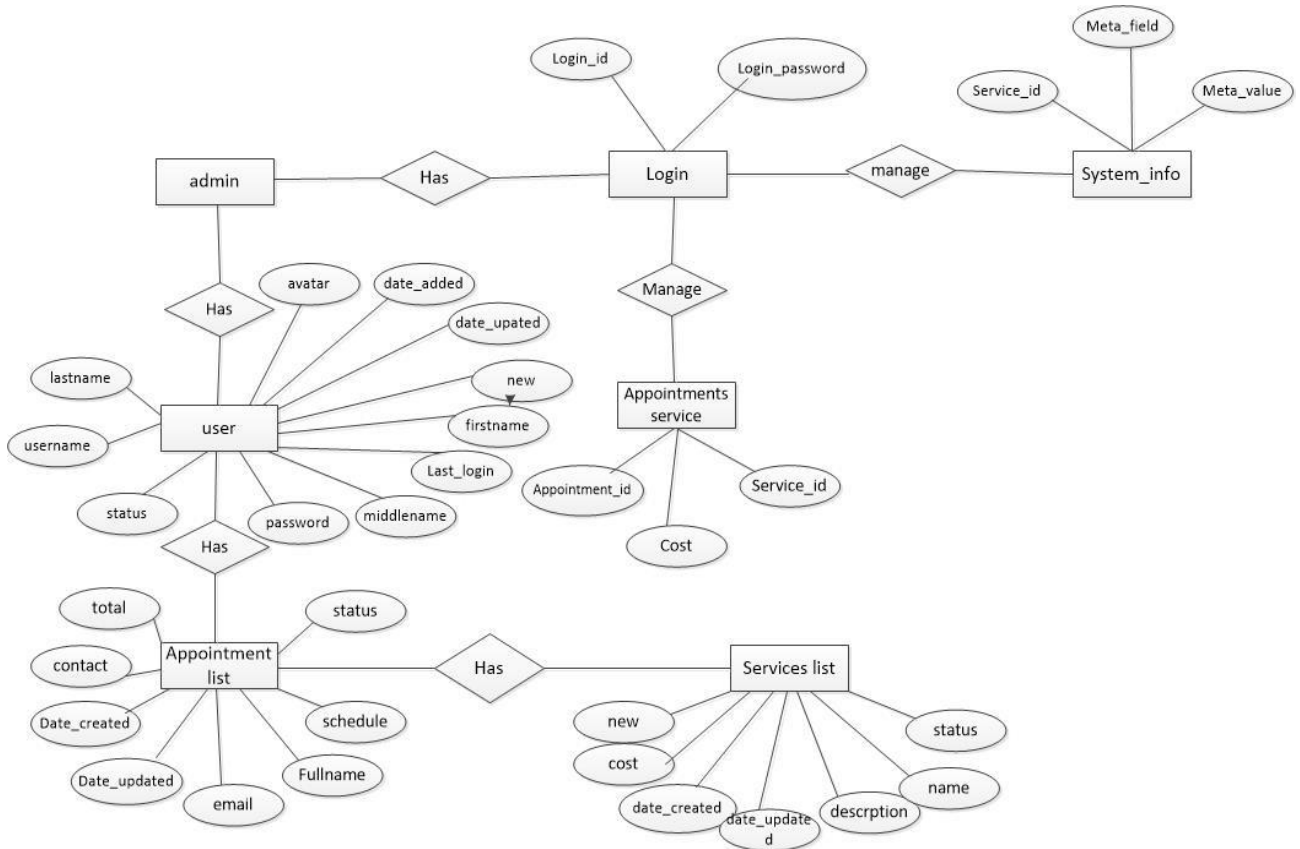
### '0'levelDFD Diagram:



## 1' Level Data Flow Diagram

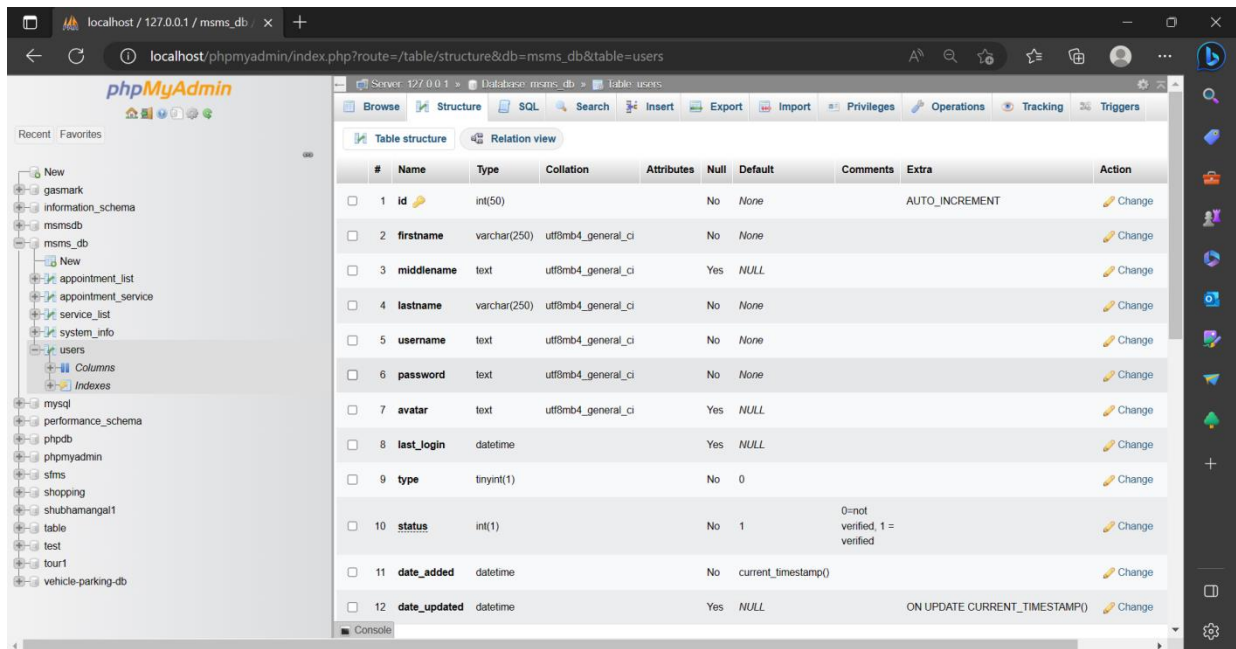


## 6.1.2 Entity Relationship Diagrams:



## 6.2 Database Design:-

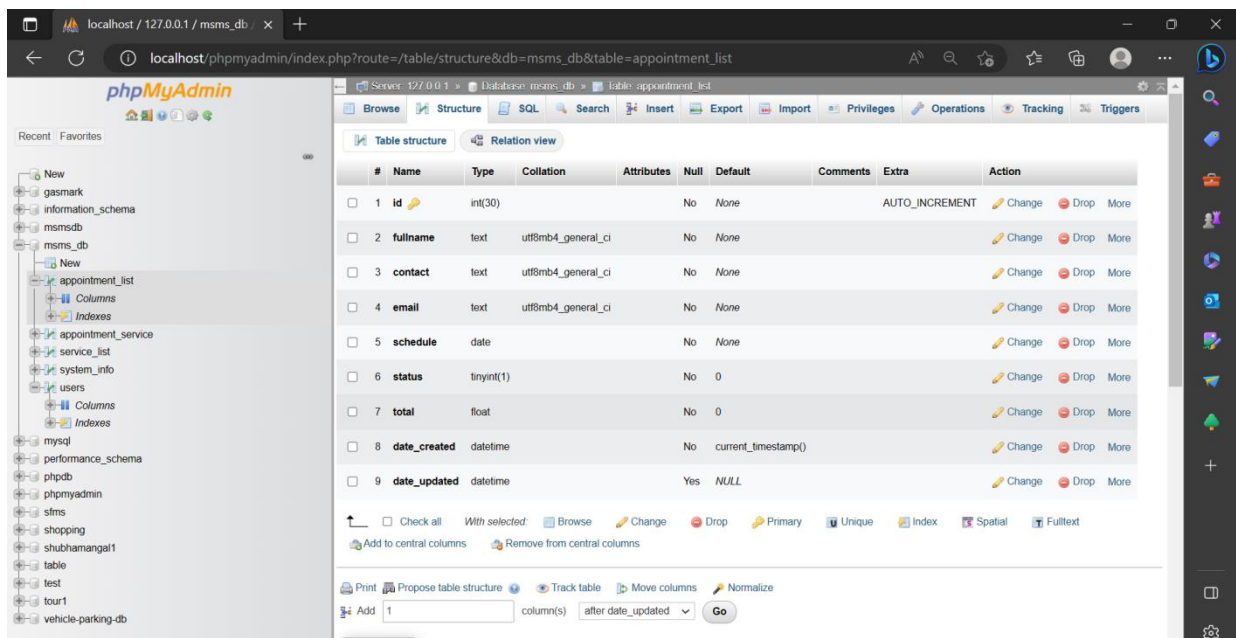
Table 1:- user



The screenshot shows the phpMyAdmin interface for the 'msms\_db' database. The 'Table structure' tab is selected for the 'users' table. The table has 12 columns with the following details:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id	int(50)			No	None		AUTO_INCREMENT	Change
2	firstname	varchar(250)	utf8mb4_general_ci		No	None			Change
3	middlename	text	utf8mb4_general_ci		Yes	NULL			Change
4	lastname	varchar(250)	utf8mb4_general_ci		No	None			Change
5	username	text	utf8mb4_general_ci		No	None			Change
6	password	text	utf8mb4_general_ci		No	None			Change
7	avatar	text	utf8mb4_general_ci		Yes	NULL			Change
8	last_login	datetime			Yes	NULL			Change
9	type	tinyint(1)			No	0			Change
10	status	int(1)			No	1	0=not verified, 1=verified		Change
11	date_added	datetime			No	current_timestamp()			Change
12	date_updated	datetime			Yes	NULL		ON UPDATE CURRENT_TIMESTAMP()	Change

Table 2:- appointment\_list



The screenshot shows the phpMyAdmin interface for the 'msms\_db' database. The 'Table structure' tab is selected for the 'appointment\_list' table. The table has 9 columns with the following details:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id	int(30)			No	None		AUTO_INCREMENT	Change Drop More
2	fullname	text	utf8mb4_general_ci		No	None			Change Drop More
3	contact	text	utf8mb4_general_ci		No	None			Change Drop More
4	email	text	utf8mb4_general_ci		No	None			Change Drop More
5	schedule	date			No	None			Change Drop More
6	status	tinyint(1)			No	0			Change Drop More
7	total	float			No	0			Change Drop More
8	date_created	datetime			No	current_timestamp()			Change Drop More
9	date_updated	datetime			Yes	NULL			Change Drop More

Below the table structure, there are options to 'Check all', 'With selected', 'Browse', 'Change', 'Drop', 'Primary', 'Unique', 'Index', 'Spatial', and 'Fulltext'. There are also buttons for 'Add to central columns' and 'Remove from central columns'. At the bottom, there is a 'Print' button, a 'Propose table structure' button, a 'Track table' button, a 'Move columns' button, and a 'Normalize' button. A search bar is also present with the text 'Add 1 column(s) after date\_updated' and a 'Go' button.

### Table 3: appointment\_service

The screenshot shows a web browser window with the address bar displaying the URL: `localhost/phpmyadmin/index.php?route=/sql&pos=0&db=msms_db&table=service_list`. The browser's address bar also shows the current page title as "localhost / 127.0.0.1 / msms\_db".

The main content area of the browser displays the phpMyAdmin interface. The interface shows the "service\_list" table structure and data. The table has columns: `id`, `name`, `description`, `cost`, `status`, `date_created`, and `date_updated`. The data shows 6 rows of services, including Hair Style, Hair Color, Hair Style with Half Body Massage, Hair Style with Whole Body Massage, Scalp Massage & Conditioning Treatment, and Beard Sculpting.

The table structure and data are as follows:

id	name	description	cost	status	date_created	date_updated
1	Hair Style	Hair Style	80	1	2021-12-01 11:04:17	NULL
2	Hair Color	Hair Color	150	1	2021-12-01 11:04:31	NULL
3	Hair Style with Half Body Massage	Hair Style with Half Body Massage	250	1	2021-12-01 11:04:56	NULL
4	Hair Style with Whole Body Massage	Morbi egestas pellentesque uttricies. Proin tortor...	300	1	2021-12-01 11:05:25	2021-12-01 15:32:22
5	Scalp Massage & Conditioning Treatment	Scalp Massage & Conditioning Treatment	300	1	2021-12-01 11:07:25	2021-12-01 11:07:33
6	Beard Sculpting	Beard Sculpting	200	1	2021-12-01 11:07:48	NULL

### Table 4: service\_list

The screenshot displays the phpMyAdmin web interface. The top navigation bar shows the server name 'localhost / 127.0.0.1' and the selected database 'msms\_db'. The main content area is titled 'Table structure' for the 'appointment\_service' table. It lists three columns: 'appointment\_id' (int(30)), 'service\_id' (int(30)), and 'cost' (float). Below the column list, there are options to 'Check all', 'With selected', 'Browse', 'Change', 'Drop', 'Primary', 'Unique', 'Index', 'Spatial', and 'Fulltext'. The 'Indexes' section shows two indexes: 'appointment\_id' and 'service\_id', both of type BTREE. The 'Partitions' section is empty.

**Table 5: system\_info**

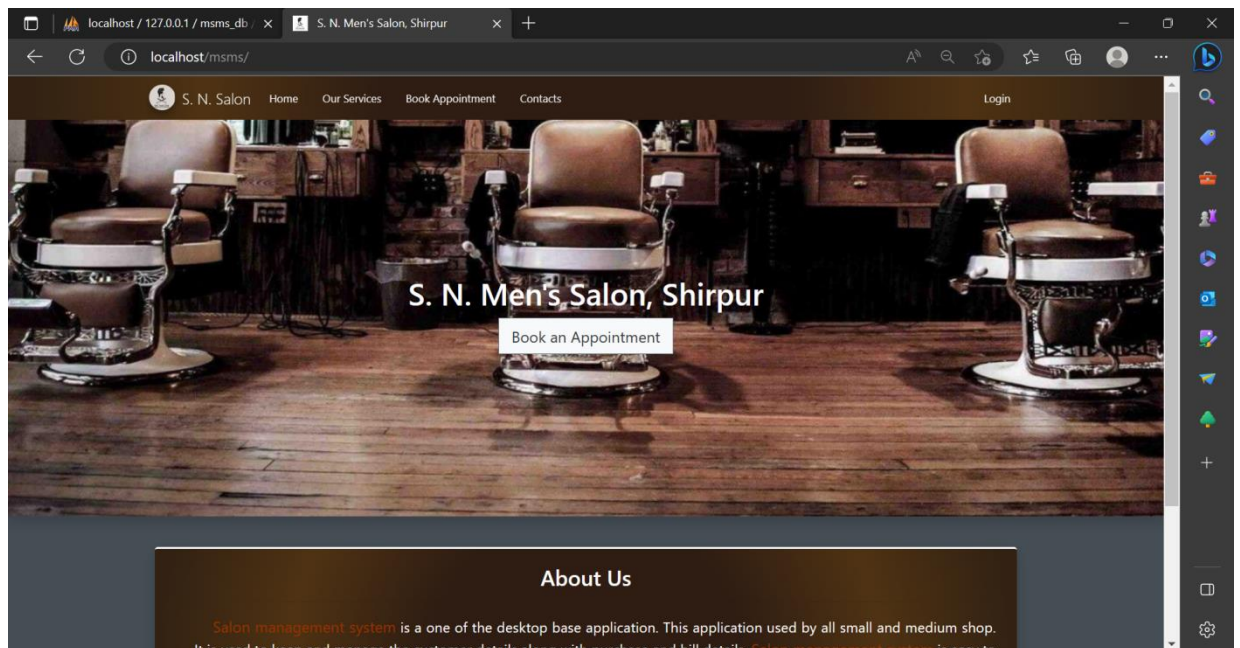
The screenshot shows the phpMyAdmin interface for the 'msms\_db' database. The 'system\_info' table is selected, and its structure and data are displayed. The table has three columns: 'id', 'meta\_field', and 'meta\_value'. The data is as follows:

id	meta_field	meta_value
1	name	S. N. Men&apos;s Salon, Shirpur
6	short_name	S. N. Salon
11	logo	uploads/logo-1638326146.png
13	user_avatar	uploads/user_avatar.jpg
14	cover	uploads/cover-1638326239.png
15	content	Array
16	email	sn.salon@gmail.com
17	contact	09123456789 / 456-4568-7899
18	from_time	09:00
19	to_time	19:00
20	address	near manas hotel, Pitreshwer Colony, Nimzari Na...



## 6.3 Screen Layout

1)



## 2) Appointment Page Layout

The screenshot shows the 'Book an Appointment' page of the S. N. Men's Salon, Shirpur. The browser address bar shows 'localhost/msms/?page=appointment'. The page features a dark brown header with navigation links: Home, Our Services, Book Appointment, and Contacts. A 'Login' link is also present. The main content area has a dark background. It contains a 'Book an Appointment' form with the following fields:

- Fullname: Umesh Pravin Patil
- Contact #: 93070405026
- Email: upatil1932002@gmail.com
- Schedule Date: 22/03/2023

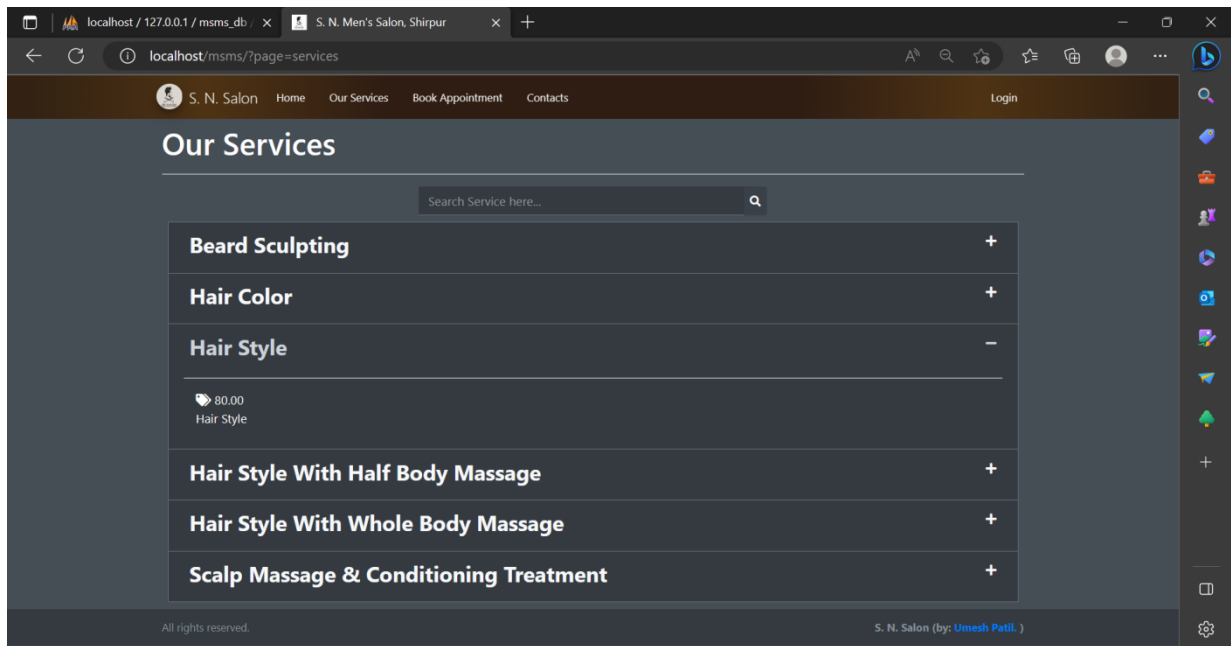
Below the form is a table with the following data:

	Service	Cost
<input type="checkbox"/>	Beard Sculpting	200.00
<input type="checkbox"/>	Hair Color	150.00
<input checked="" type="checkbox"/>	Hair Style	80.00
<input type="checkbox"/>	Hair Style with Half Body Massage	250.00
<input type="checkbox"/>	Hair Style With Whole Body Massage	300.00
<input type="checkbox"/>	Scalp Massage & Conditioning Treatment	300.00
	<b>Total</b>	<b>80.00</b>

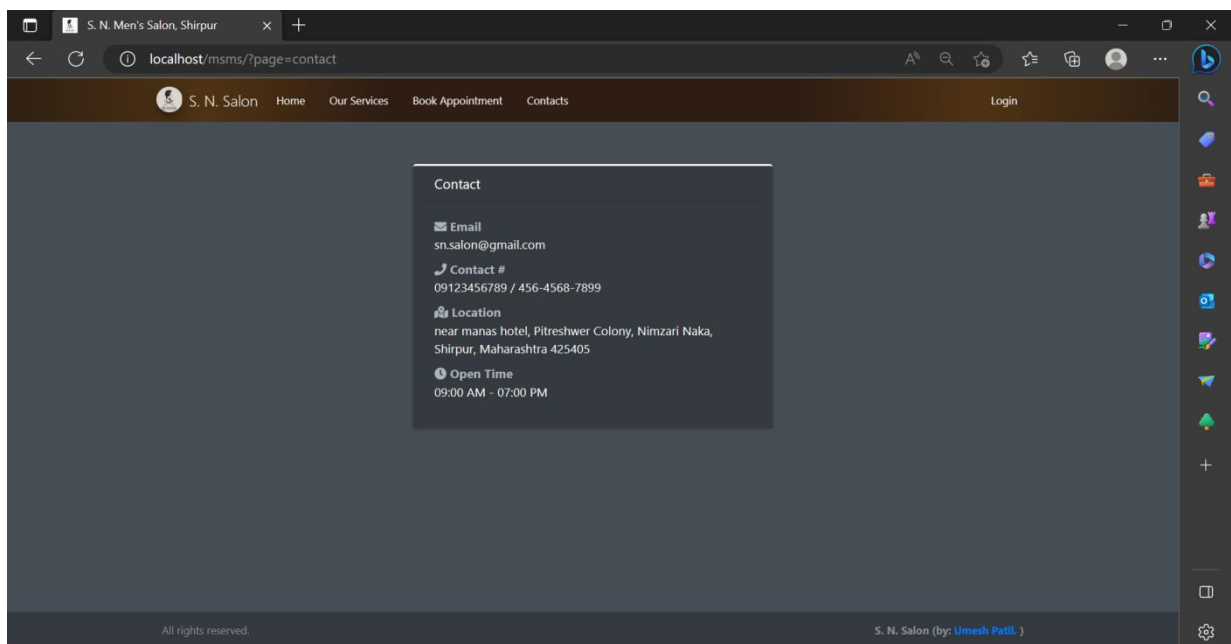
At the bottom of the form is a 'Book Now' button. The page also includes a 'Back' button in the top right corner of the form area.



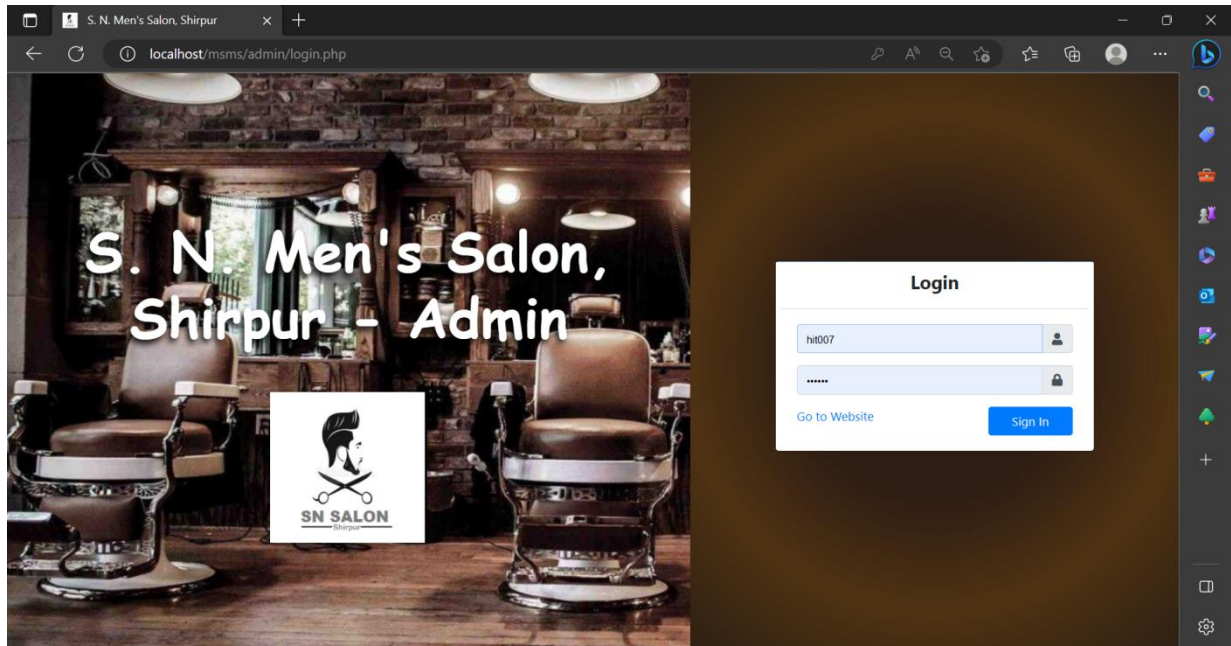
### 3) Our Services Page Layout



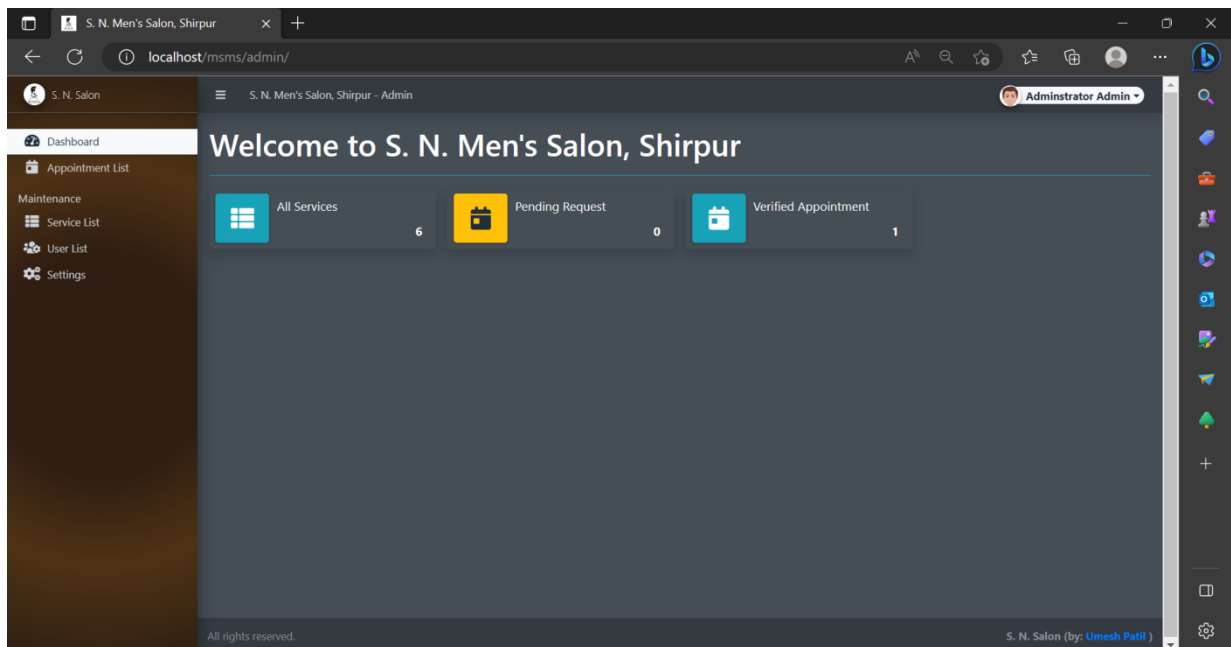
### 4) Contact Page Layout



## 5) Login Page Layout



## 6) Admin Dashboard Layout



## 7) List of Appointments Layout

The screenshot shows the 'List of Appointments' page in the S. N. Men's Salon, Shirpur admin interface. The page has a dark theme and a sidebar on the left with navigation links: Dashboard, Appointment List (selected), Maintenance, Service List, User List, and Settings. The main content area displays a table of appointments. At the top, there is a search bar and a 'Show 10 entries' dropdown. The table has columns: #, Date Created, Full Name, Schedule, Status, and Action. A single appointment is listed with ID 1, created on 2023-03-16 15:51, for Tushar Patil, scheduled for Mar 17, 2023, with a status of 'Verified'. Below the table, it says 'Showing 1 to 1 of 1 entries' and has 'Previous', '1', and 'Next' pagination links. The footer includes 'All rights reserved.' and 'S. N. Salon (by: Umesh Patil)'.

#	Date Created	Full Name	Schedule	Status	Action
1	2023-03-16 15:51	Tushar Patil	Mar 17, 2023	Verified	Action

## 8) List of Services

The screenshot shows the 'List of Services' page in the S. N. Men's Salon, Shirpur admin interface. The page has a dark theme and a sidebar on the left with navigation links: Dashboard, Appointment List, Maintenance, Service List (selected), User List, and Settings. The main content area displays a table of services. At the top, there is a search bar and a 'Show 10 entries' dropdown. The table has columns: #, Date Created, Service, Description, Cost, Status, and Action. Six services are listed, including Beard Sculpting, Hair Color, Hair Style, and various body massages. Each service has a status of 'Active' and an 'Action' button. Above the table, there is a '+ Add New Service' button. Below the table, it says 'Showing 1 to 6 of 6 entries' and has 'Previous', '1', and 'Next' pagination links. The footer includes 'All rights reserved.' and 'S. N. Salon (by: Umesh Patil)'.

#	Date Created	Service	Description	Cost	Status	Action
1	2021-12-01 11:07	Beard Sculpting	Beard Sculpting	200.00	Active	Action
2	2021-12-01 11:04	Hair Color	Hair Color	150.00	Active	Action
3	2021-12-01 11:04	Hair Style	Hair Style	80.00	Active	Action
4	2021-12-01 11:04	Hair Style With Half Body Massage	Hair Style with Half Body...	250.00	Active	Action
5	2021-12-01 11:05	Hair Style With Whole Body Massage	Morbi egestas pellentesque...	300.00	Active	Action
6	2021-12-01 11:07	Scalp Massage & Conditioning Treatment	Scalp Massage & Conditioning...	300.00	Active	Action

## 9) List of Staff Member's

The screenshot shows the 'List of System Users' page in the admin interface. The left sidebar contains navigation links: Dashboard, Appointment List, Maintenance, Service List, User List (highlighted), and Settings. The main content area has a 'List of System Users' title with a '+ Create New' button. Below the title is a search bar and a 'Show 10 entries' dropdown. A table lists the users with columns: #, Avatar, Name, Username, User Type, and Action. One user is listed: Hitesh Patil (hit007, Staff). At the bottom, it says 'Showing 1 to 1 of 1 entries' with 'Previous' and 'Next' buttons. The footer includes 'All rights reserved.' and 'S. N. Salon (by: Umesh Patil)'.

#	Avatar	Name	Username	User Type	Action
1		Hitesh Patil	hit007	Staff	Action

## 10) System Information Management in Admin Site

The screenshot shows the 'System Information' page in the admin interface. The left sidebar is the same as in the previous screenshot. The main content area has a 'System Information' title. Below it are two text input fields: 'System Name' (containing 'S. N. Men's Salon, Shirpur') and 'System Short Name' (containing 'S. N. Salon'). Below these is an 'About Us' section with a rich text editor. The editor contains the following text: 'Salon management system is a one of the desktop base application. This application used by all small and medium shop. It is used to keep and manage the customer details along with purchase and bill details. Salon management system is easy to use and completely installation based. Application also provide the add-on facility of manage supplier details. The application also generates date wise reports with the help of reports we can focus on stock and regular customers. It is beneficial to manage customer grow our business. The overall purpose of the application is to regular billing of customers and Appointment.' Below the editor is a 'System Logo' section with a 'Choose file' button and a 'Browse' button.

# Chapter 7

## Coding System

### 7 Coding System:-

After designing phase we perform the coding for physical design of website. We use PHP language. In this phase we implement all relative business logic which required each page/form in application that required

### 7.2 Coding Standard

General coding standards pertain to how the developer writes code. The SISEPG has come up with a small set of items it feels should be followed regardless of the programming language being used.

#### 1. Indentation

Proper and consistent indentation is important in producing easy to read and maintainable programs. Indentation should be used to:

- Emphasize the body of a control statement such as a loop or a select statement
- Emphasize the body of a conditional statement
- Emphasize a new scope block

#### 2. Inline Comments

Inline comments explaining the functioning of the subroutine or key aspects of the algorithm shall be frequently used.

#### 3. Structured Programming

Structured (or modular) programming techniques shall be used. GO TO statements shall not be used as they lead to “spaghetti” code, which is hard to read and maintain, except as outlined in the FORTRAN Standards and Guidelines.

#### **4. Classes, Subroutines, Functions, and Methods**

The functions and methods reasonably sized. This depends upon the language being used. For guidance on how large to make software modules and methods. A good rule of thumb for module length is to constrain each module to one function or action (i.e. each module should only do one “thing”). If a module grows too large, it is usually because the programmer is trying to accomplish too many actions at one time.

The names of the classes, subroutines, functions, and methods shall have verbs in them. That is the names shall specify an action, e.g. “get name”, “compute temperature”.

#### **5.Source Files**

The name of the source file or script shall represent its function. All of the routines in a file shall have a common purpose.

#### **6. Variable Names**

Variable shall have meaningful names that convey to a casual observer, the intent of its use. Variables shall be initialized prior to its first use.

#### **7. Use of Braces**

In some languages, braces are used to delimit the bodies of conditional statements, control constructs, and blocks of scope. Programmers shall use either of the following bracing styles

#### **8.Variable Declaration**

Variable declarations that span multiple lines should always be preceded by a type.

## **9. Program Statements**

Program statements should be limited to one per line. Also, nested statements should be avoided when possible.

## **10. Use of Parentheses**

It is better to use parentheses liberally. Even in cases where operator precedence unambiguously dictates the order of evaluation of an expression, often it is beneficial from a readability point of view to include parentheses anyway.

## **11. Exception Handling Procedures:-**

Check and controls to be incorporated in the software are an important design consideration factor, checks and control procedures are used to validate the data at the time of data entry of various transactions. If user enters the invalid data, though exception procedures program can display the error message.

In the absence of suitable check, controls and exception Procedures, the result of the business application could be wrong or failure to deliver the results exception procedures are to control the input i.e. for correct, invalid, in require

# Chapter 8

## Testing and Implementation

### 8.1 Testing:

Testing of website perform coding like validation and verification testing. Different testing tools are used for testing like white box testing and black box testing.

#### 8.1.1 White Box Testing:-

White box testing is a security testing method that can be used to validate whether code implementation follows intended design, to validate implemented security functionality, and to uncover exploitable vulnerabilities.

This section introduces white box testing for security, how to perform white box testing, and tools and techniques relevant to white box testing. It brings together concepts from two separate domains: traditional white box testing techniques and security testing. It assumes the reader to be familiar with general concepts of software security. Refer to other content areas on this portal to learn different aspects of software security.

The section is organized into separate sections dealing with what white box testing is, how to perform white box testing, what results to expect, the business case to justify white box testing, skills and training required to perform white box testing, and a brief case study. The purpose of any security testing method is to ensure the robustness of a system in the face of malicious attacks or regular software failures. White box testing is performed based on the knowledge of how the system is implemented. White box testing includes analyzing data flow, control flow, information flow, coding practices, and exception and error handling within the



system, to test the intended and unintended software behavior. White box testing can be performed to validate whether code implementation follows intended design, to validate implemented security functionality, and to uncover exploitable vulnerabilities.

### **8.1.2 Black Box Testing:-**

Black box testing takes an external perspective of the test object to derive test cases. These tests can be functional or non-functional, though usually functional. The test designer selects valid and invalid input and determines the correct output. There is no knowledge of the test object's internal structure. This method of test design is applicable to all levels of software testing: unit, integration, functional testing, system and acceptance. The higher the level, and hence the bigger and more complex the box, the more one is forced to use black box testing to simplify. While this method can uncover unimplemented parts of the specification, one cannot be sure that all existent paths are tested. The base of the Black box testing strategy lies in the selection of appropriate data as per functionality and testing it against the functional specifications in order to check for normal and abnormal behavior of the system. In order to implement Black Box Testing Strategy, the tester is needed to be thorough with the requirement specifications of the system and as a user, should know, how the system should behave in response to the particular action. These testing types are again divided in two groups: a) Testing in which user plays a role of tester and b) User is not required.

### **8.1.3 Performance Testing:-**

System performance is generally assessed in terms of response time and throughput rates under differing processing and configuration conditions. To attack the performance problems, there are several questions

should be asked like how much application logic should be remotely executed? How much updating should be done to the database server over the network from the client workstation? How much data should be sent to each in each transaction? The best strategy for improving client-server performance is a three-step process. First, execute controlled performance tests that collect the data about volume, stress, and loading tests. Second, data. Third, examine and tune the database queries and, if necessary, provide temporary data storage on the client while the application is executing.

## **8.2 System Implementation**

System Implementation is the last phase in the software development life cycle approach, during which:

- The hardware and software system components are installed;
- The selected software is configured and tested;
- The software may be customized to meet local functional requirements;
- Data mapping, cleansing and migration take place;
- Reporting requirements are specified and reports produced;

The whole system is tested before being approved, signed off and becoming a fully operational production system.

## **Chapter 9**

# **Conclusion and Remark**

### **9.1 Conclusion:-**

The System depends on result of system phase in system development. The Result of each phase indicates reliability. The quality includes the modularity, main ability good documentation, user friendliness etc. Since PHP provides the facility of the system of security, unauthorized person, cannot handle out of the system so less chance of failures in the data which includes reliability, our system I developed in PHP, which is GUI indicated attractive and use friendly.

System is split into different forms, each from module specific task. We tried to give appropriate message to user can operate it very well and less chance mistakes.

### **9.2 Limitations of System :-**

- 1) The only limitation in the project is the output generated by the system is depended upon the accuracy of the data we have provided as input system.
- 2) System does not generate graphical reports.

## Chapter 10

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