

HOTEL MANAGEMENT SYSTEM

15IT304J - WEB PROJECT

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In partial fulfillment for the

award of the degree of

BTECH

IN

COMPUTER SCIENCE AND ENGINEERING



**SRM INSTITUTE OF SCIENCE AND
TECHNOLOGY**

KATTANKULATHUR

NOV 2020

BONAFIDE CERTIFICATE

Certified that this project report “**HOTEL MANAGEMENT SYSTEM**” is the bonafide work of “**KULDEEP SINGH**” ,” **KARTIK SINGH**” , “**APOORV GUPTA**” who carried out the project work under my supervision.

SIGNATURE

Ms.G.K.Sandhia

SIGNATURE

Dr.B.Amutha

ACKNOWLEDGEMENT

The success and the final outcome of this project required guidance and assistance from different sources and we feel extremely fortunate to have got this all along the completion of our project. Whatever we have done is largely due to such guidance and assistance and we would not forget to thank them.

We express our sincere thanks to the Head of the Department, Department of Computer Science, **and B.Amutha** for all the help and infrastructure provided to us to complete this project successfully and his valuable guidance.

We owe our profound gratitude to our project guide **Ms.G.K.Sandhia**, who took keen interest in our project work and guided us all along, till the completion of our project work by providing all the necessary information for developing a good system.

We are thankful to and fortunate enough to get constant encouragement, support and guidance from all the Teaching staff of the Department of Computer Science which helped us in successfully completing our minor project work. Also, we would like to extend our sincere regards to all the non-teaching staff of the department of Computer Science for their timely support.

Faculty in-charge

Head of Department

INTERNAL EXAMINER

Chapter 1.

Hotel Booking System

TEAM MEMBERS :-

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CHAPTER 2.

INTRODUCTION

Hotel Booking System

The project “Online Hotel Booking System” is a system based on accessing the internet to book for rooms in a hotel. The purpose of this study is to develop and implement an online hotel reservation system for hotels, that will replace the manual method of booking for hotel rooms. The previous system for booking rooms were faced with so many problems like, delay in processing the customer booking or paying for rooms that is below or beyond his standard, causes difficulty for emergency booking.

The use of online view of room rates and uploading of available rooms and facilities was used for the new system so that the customer can view and make his choice before arrival, and also in the case of emergency travelling. This new system assisted the hotel owners in managing their hotels, because they can also regulate the receptionist moves and avoid fraudulent activities. It also increased the efficiency of the hotel managers and also their profit margin, once they have a better and good facilities.

The main purpose of this work is therefore to develop a web application program that would circumvent all those problems encountered in the manual hotel booking system, so that customers can easily go online with their mobile phones, tablets or laptops in order to browse the relevant information they need about the hotels within their locality so that they can book for the appropriate suite that is within their budget.

CHAPTER 3.

SYSTEM REQUIREMENTS:-

Following code editors and softwares were used for developing the hotel booking system.

1. VS CODE

Visual Studio Code is a free source-code editor made by Microsoft for Windows, Linux and macOS. Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git. Users can change the theme, keyboard shortcuts, preferences, and install extensions that add additional functionality.

2. Sublime Text

Sublime Text is a shareware cross-platform source code editor with a Python application programming interface (API). It natively supports many programming languages and markup languages, and functions can be added by users with plugins, typically community-built and maintained under free-software licenses.

3. Atom

Atom is a free and open-source text and source code editor for macOS, Linux, and Microsoft Windows with support for plug-ins written in Javascript, and embedded Git Control, developed by GitHub. Atom is a desktop application built using web technologies.

4.XAMPP

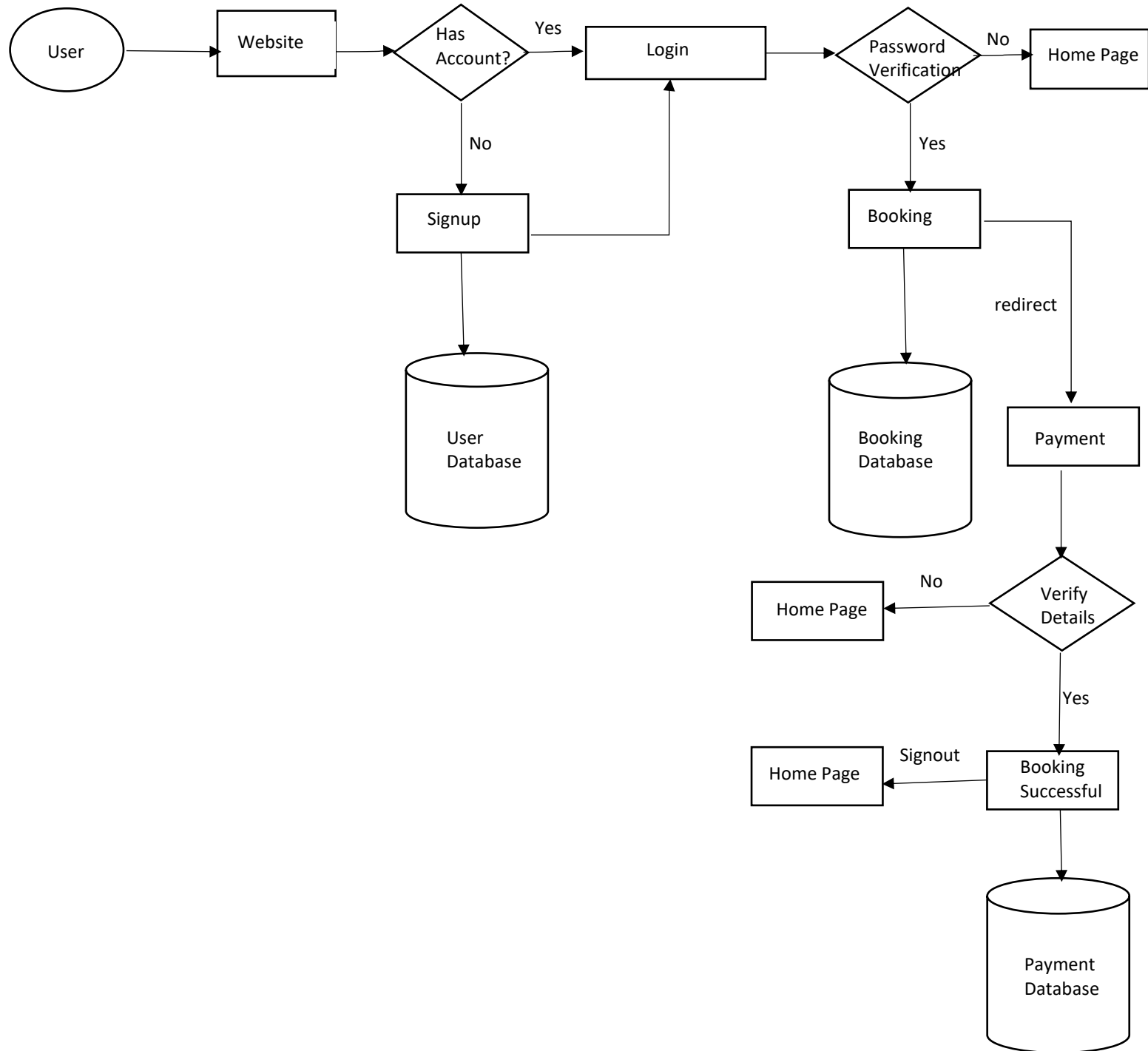
XAMPP is a free and open-source cross-platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, MariaDB database, and interpreters for scripts written in the PHP and Perl programming languages.

HARDWARE REQUIREMENTS

- Multi-core – 1.8 GHz processor or better
 - 4GB RAM
- Windows 7, 8, 8.1, or 10
 - 80 GB hard drive or more (160 GB highly recommended)
- Mouse
 - Monitor with 1024 X 768 resolution or higher
- Windows compatible printer (laser printer recommended)
 - Gigabit Ethernet port and router (for networking computers)**
- 1 serial port or a USB to serial adapter (only required for certain software options)
 - Wired, high speed internet connection (only required for certain software/service options)

CHAPTER 4.

SYSTEM ARCHITECTURE



CHAPTER 5.

MODULES DESCRIPTION

5(a). Header and Footer

Headers and footers generally contain additional information such as page numbers, dates, an author's name, and footnotes, which can help keep longer documents organized and make them easier to read.

In header various options are provided like home page button to access home page directly from any page on the site. Options like about us, special offers , contact option button is provided for the user to make it easy for them to access the site using navbar.

In footer the user is provided various options to make their experience more easier and smoother. User can have information about various locations of the booking company, can contact them on their mail or any other social media account.

Various html tags are used to develop the header and footer like head ,div, article , list etc. to make pages more attractive CSS and bootstrap elements are used like background color, font color etc.

Technologies used :-

- **HTML**
- **CSS**
- **Bootstrap**

5(b). View Pages

View Pages are basic implementation of HTML and CSS to design web pages for each of the hotels incorporated into the hotel management website each view page displays rooms restaurants and amenities for each of the hotel.

The pages gives user an idea about the hotel, its facilities , condition of room and other amenities. It also gives an option to book the room directly from the same page. The prices and other information is provided on the page.

Various media tag elements are used to provide user with photos, videos of the hotel.

Technologies used :-

- **HTML**
- **CSS**
- **Bootstrap**

5(c). Signup/Login

A signup page (also known as a registration page) enables users and organizations to independently register and gain access to your system. It is common to have multiple signup pages depending on the types of people and organizations you want to register.

Password with JS validation

In this technological age password hacking is at it's tipping point so in order to make password more secure and not easily hack able there are some validation that needs to be full filled while assigning password to accounts.

Such as

1. Password must contain number as well as alphabets. (Alphanumeric)
2. First Name, Last Name and User ID should not be a part of Password.
3. Should NOT contain special character
4. Minimum 8 digits
- 5.Both(password and confirm password) must match.

Technologies used :-

- **HTML**
- **CSS**
- **Bootstrap**
- **Php**
- **XAMP**
- **MySql**

5(d). Booking Page

Booking pages are the basis of Schedule Once's scheduling approach. They are pages through which bookings are made.

You can set up your Booking pages in different ways, based on your specific scheduling scenario. Each Booking page is completely independent in its settings. Booking pages can be used with or without Event types, and can be included in a Master page. Booking page uses JS, HTML ,CSS ,PHP and MYSQL

PHP code is usually processed on a web server by a PHP interpreter implemented as a module, a daemon or as a Common Gateway Interface (CGI) executable. On a web

server, the result of the interpreted and executed PHP code – which may be any type of data, such as generated HTML or binary image data – would form the whole or part of an HTTP response.

Technologies used :-

- **HTML**
- **CSS**
- **Bootstrap**
- **Php**
- **XAMP**
- **MySql**

5(e). Payment Details Page

Payment details page is a gateway to execute payment process in order to confirm the booking done by the user,

the page requires basic fields to be filled in order to complete the payment process such as card number, card expiry, card holder name etc as soon as the user completes all the fields and proceed with OTP authentication the room for the costumer is booked.

The payment gateway should be safe and easy to use. After the successful payment the room is booked for with user's name and unique id.

Technologies used :-

- **HTML**
- **CSS**
- **Bootstrap**
- **Php**
- **XAMP**
- **MySql**

5(f). SESSION

“Session” is the term used to refer to a visitor's time browsing a web site. It's meant to represent the time between a visitor's first arrival at a page on the site and the time they stop using the site.

The code that initializes a session also includes an expiration, so a single session never lasts beyond a certain duration, at least as far as the web property is concerned.

Depending on the site, a developer may define a web session as short as five minutes or as long as 1,440 minutes (an entire day).

Sessions and cookies are sometimes conflated, creating confusion. More specifically, session IDs and cookie IDs are confused. While they are closely related, they are not the same thing. A cookie identifies, often anonymously, a specific visitor or a specific computer. Cookies can be used for authentication, storing site preferences, saving shopping carts, and server session identification.

Technologies used :-

- **HTML**
- **CSS**
- **Bootstrap**
- **Php**
- **XAMP**
- **MySql**

CHAPTER 6.

IMPLEMENTATION (CODE)

6(a). Login.php

```
<?php
// Initialize the session
session_start();

// Check if the user is already logged in, if yes then redirect him to
welcome page
if(isset($_SESSION["loggedin"]) && $_SESSION["loggedin"] === true){
    header("location: home.php");
    exit;
}

// Include config file
require_once "config.php";

// Define variables and initialize with empty values
$username = $password = "";
$username_err = $password_err = "";

// Processing form data when form is submitted
if($_SERVER["REQUEST_METHOD"] == "POST"){

    // Check if username is empty
    if(empty(trim($_POST["username"]))) {
        $username_err = "Please enter username.";
    } else {
        $username = trim($_POST["username"]);
    }

    // Check if password is empty
    if(empty(trim($_POST["password"]))) {
        $password_err = "Please enter your password.";
    } else {
        $password = trim($_POST["password"]);
    }

    // Validate credentials
    if(empty($username_err) && empty($password_err)){
        // Prepare a select statement
        $sql = "SELECT id, username, password FROM users WHERE username
= ?";
```

```

if($stmt = mysqli_prepare($link, $sql)){
    // Bind variables to the prepared statement as parameters
    mysqli_stmt_bind_param($stmt, "s", $param_username);

    // Set parameters
    $param_username = $username;

    // Attempt to execute the prepared statement
    if(mysqli_stmt_execute($stmt)){
        // Store result
        mysqli_stmt_store_result($stmt);

        // Check if username exists, if yes then verify password
        if(mysqli_stmt_num_rows($stmt) == 1){

            // Bind result variables
            mysqli_stmt_bind_result($stmt, $id, $username, $hashed_password);
            if(mysqli_stmt_fetch($stmt)){
                if(password_verify($password, $hashed_password)){

                    // Password is correct, so start a new session
                    session_start();

                    // Store data in session variables
                    $_SESSION["loggedin"] = true;
                    $_SESSION["id"] = $id;
                    $_SESSION["username"] = $username;

                    // Redirect user to welcome page
                    header("location: home.php");
                } else{
                    // Display an error message if password is not valid
                    $password_err = "The password you entered was not valid.";
                }
            }
        } else{
            // Display an error message if username doesn't exist
            $username_err = "No account found with that username.";
        }
    }
}

```

```

        } else{
            echo "Oops! Something went wrong. Please try again late
r.";
        }

        // Close statement
        mysqli_stmt_close($stmt);
    }
}

// Close connection
mysqli_close($link);
}
?>

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Login</title>
    <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/boot
strap/4.4.1/css/bootstrap.min.css" integrity="sha384-Vkoo8x4CGs03+Hh xv8
T/Q5PaXtkKtu6ug5TOeNV6gBiFeWPGFN9MuhOf23Q9Ifjh" crossorigin="anonymous"
> <title></title>

    <style type="text/css">
        body
    {
        font-size: 20px;
        font-family: 'Arial';
        padding: auto;
        margin-top: 110px;
        background-color: black;
        background-image: url('bg.jpg');
        background-size: 1400px 680px;
        opacity: 120%;
    }

    .container
    {
        max-width: 500px;
        padding: 14px 14px 14px 14px;
        box-shadow: 0 4px 8px 0 rgba(0, 0, 0, 0.5), 0 6px 20px 0 rgba(0, 0,
0, 0.8);
        align-self: center;
        background-color:#E2C073;
        border-radius: 15px;
        align-self: left;
    }

```

```

        opacity: 80%;
    }

</style>
</head>
<body>
    <div class="container">
        <h2 class="text-center card-header"><u>Login</u></h2>
        <form action="<?php echo htmlspecialchars($_SERVER["PHP_SELF"])
; ?>" method="post">
            <div class="form-group <?php echo (!empty($username_err)) ?
'has-error' : ''; ?>">
                <label>Username</label>
                <input type="text" name="username" class="form-control"
value="<?php echo $username; ?>">
                <span class="help-block"><?php echo $username_err; ?></
span>
            </div>
            <div class="form-group <?php echo (!empty($password_err)) ?
'has-error' : ''; ?>">
                <label>Password</label>
                <input type="password" name="password" class="form-cont
rol">
                <span class="help-block"><?php echo $password_err; ?></
span>
            </div>
            <div class="form-group">
                <input type="submit" class="btn btn-primary" value="Log
in">
            </div>
            <p>Don't have an account? <a href="signup.php">Sign up now<
/a>.</p>
        </form>
    </div>
</body>
</html>

```

6(b). Logout.php

```

<?php
// Initialize the session
session_start();

// Unset all of the session variables

```



```

$_SESSION = array();

// Destroy the session.
session_destroy();

// Redirect to login page
header("location: index.html");
exit;
?>

```

6. (c)Payment.php

```

<?php
session_start();
include_once('connection.php');
    // Escape user inputs for security
    $id=mysqli_real_escape_string($link, $_SESSION['id']);
    $username = mysqli_real_escape_string($link, $_SESSION['username'])
;

    $card_type = mysqli_real_escape_string($link,$_POST['type']);
    $m = mysqli_real_escape_string($link,$_POST['month']);
    $y = mysqli_real_escape_string($link,$_POST['year']);
    $card_no = mysqli_real_escape_string($link,$_POST['num']);
    $card_name = mysqli_real_escape_string($link,$_POST['name']);
    $cno = mysqli_real_escape_string($link,$_POST['cvv']);
    $password = mysqli_real_escape_string($link,$_POST['password']);

    $c_no=password_hash($cno,PASSWORD_DEFAULT);
    $pass=password_hash($password,PASSWORD_DEFAULT);

    // attempt insert query execution
    $sql = "INSERT INTO payment (u_id,username,card_type,months,years,c
ard_no,card_name,cvv,pass) VALUES ('$id','$username','$card_type','$m',
'$y','$card_no','$card_name','$c_no','$pass')";

    if(mysqli_query($link, $sql)){
        header("location: usersession.php");
    } else{
        echo "ERROR: Could not able to execute $sql. " . mysqli_error($
link);
    }

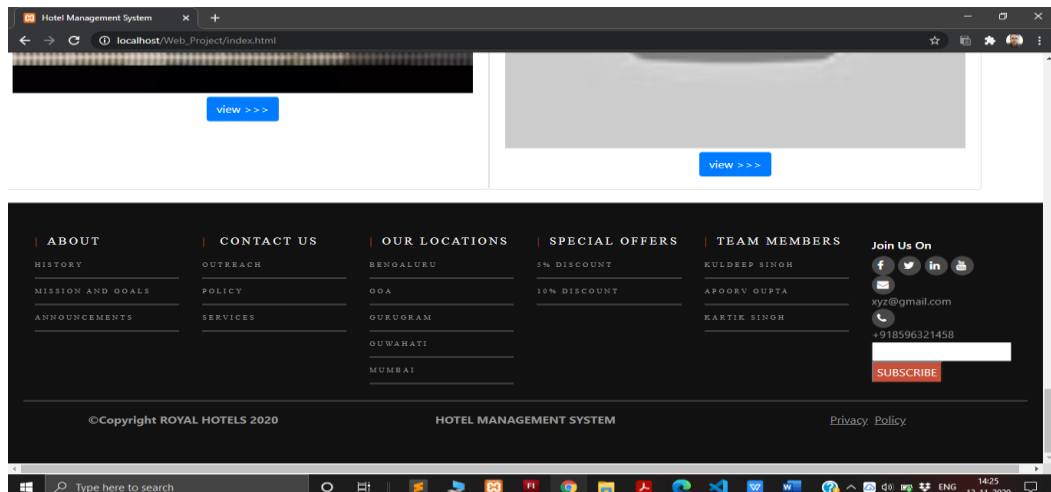
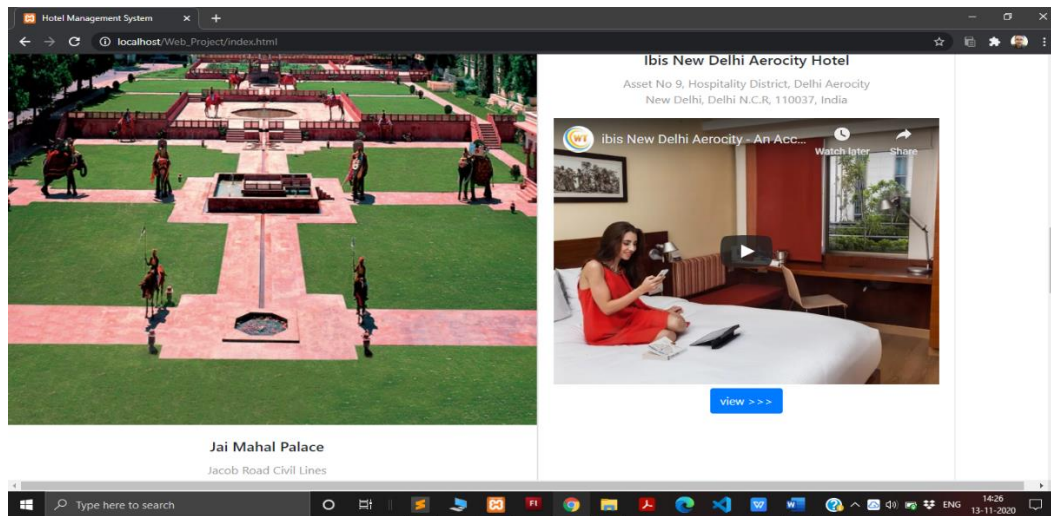
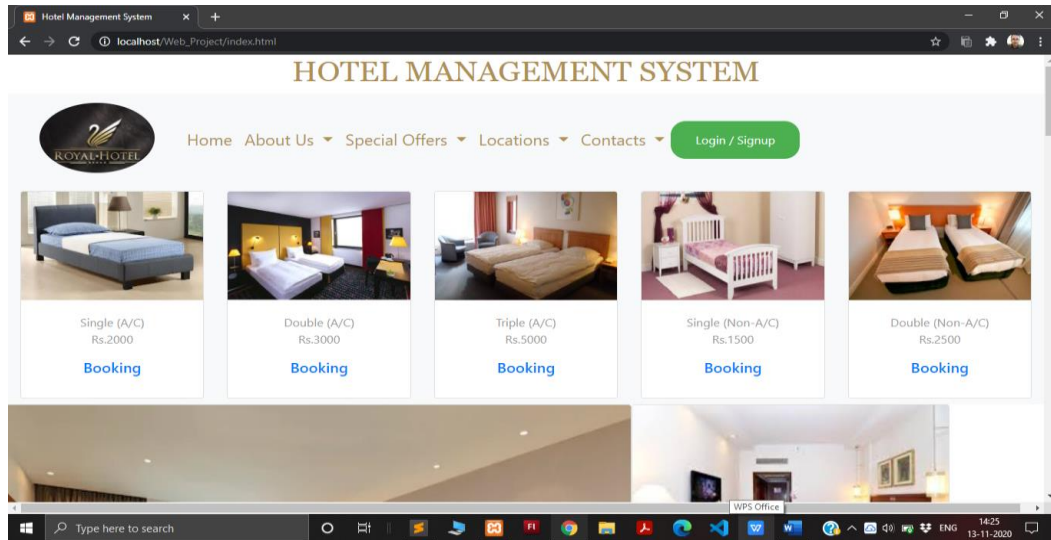
    // close connection
    mysqli_close($link);
?>

```

CHAPTER 7.

RESULT SCREENSHOTS

7(a).Home Page



7(b).Signup Page

A screenshot of a web browser displaying a "Sign Up" form. The form is overlaid on a background image of a city street at night with a yellow taxi and a building. The form fields are: "Name" (filled with "Apoorv Gupta"), "Password", and "Confirm Password". Below the "Confirm Password" field, a message states: "Password must contain the following:". Below this message, four criteria are listed with status indicators: "A lowercase letter" (marked with a red 'X'), "A capital (uppercase) letter" (marked with a green checkmark), "A number" (marked with a red 'X'), and "Minimum 6 characters" (marked with a red 'X'). At the bottom of the form is a blue "Sign Up" button. The browser's address bar shows "localhost/Web_Project/signup.php". The Windows taskbar at the bottom shows the time as 14:26 on 13-11-2020.

Sign Up

localhost/Web_Project/signup.php

Apoorv Gupta

Password

Confirm Password

Password must contain the following:

- ✗ A lowercase letter
- ✓ A capital (uppercase) letter
- ✗ A number
- ✗ Minimum 6 characters

Sign Up

Type here to search

14:26 13-11-2020

A screenshot of the same "Sign Up" form, but now the password requirements are all satisfied. The "Password" and "Confirm Password" fields are filled with masked characters (dots). The criteria list now shows green checkmarks for all four items: "A lowercase letter", "A capital (uppercase) letter", "A number", and "Minimum 6 characters". The blue "Sign Up" button remains at the bottom. Below the button, a link is visible: "Already have an account? [Login here.](#)". The browser and taskbar details are the same as in the previous screenshot.

Sign Up

localhost/Web_Project/signup.php

Password

Confirm Password

Password must contain the following:

- ✓ A lowercase letter
- ✓ A capital (uppercase) letter
- ✓ A number
- ✓ Minimum 6 characters

Sign Up

Already have an account? [Login here.](#)

Type here to search

14:26 13-11-2020

7(c).Login Page

Login

Username

Apoorv Gupta

Password

Login

Don't have an account? [Sign up now.](#)

Waiting for googleads.g.doubleclick.net...

Type here to search

14:27 13-11-2020

7(d).Booking Page

Sign Out

HOTEL MANAGEMENT SYSTEM

Check in: 13-11-2020

Check out: 21-11-2020

Room Type: A/C ITC Rajputana Rs.5000(Single A/C)

Book Reset

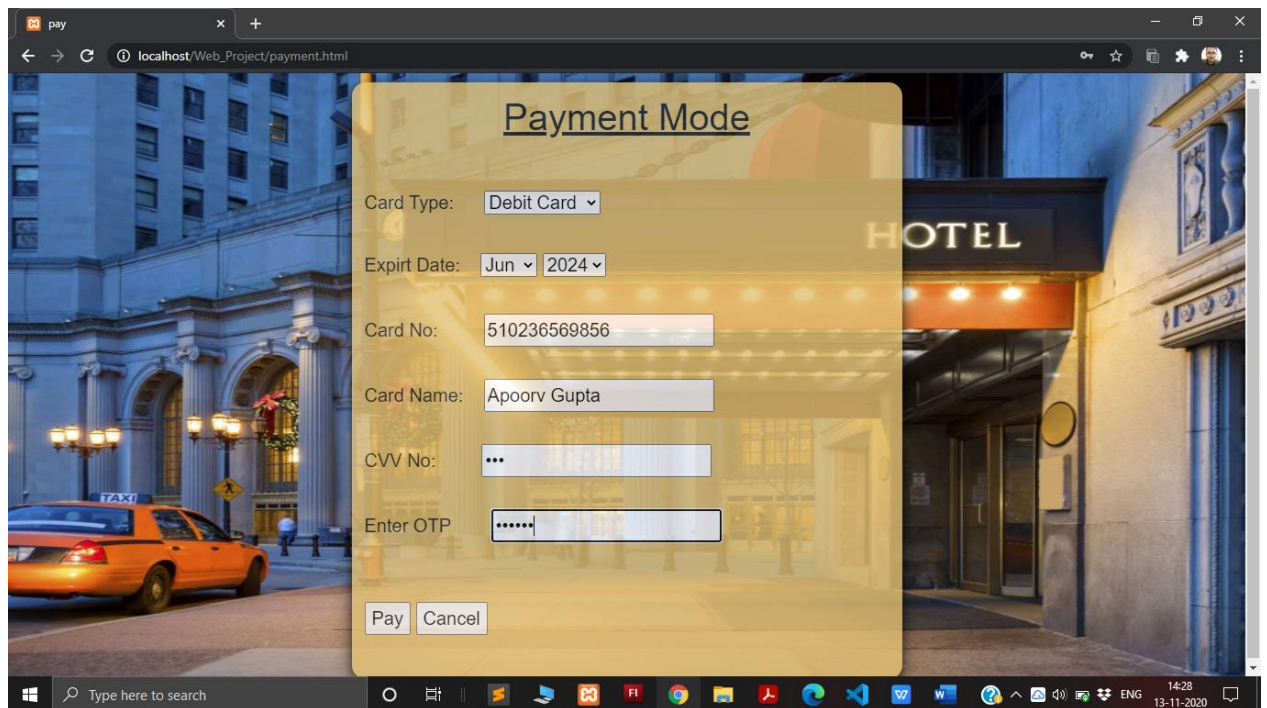
Welcome

localhost/Web_Project/home.php

Type here to search

14:28 13-11-2020

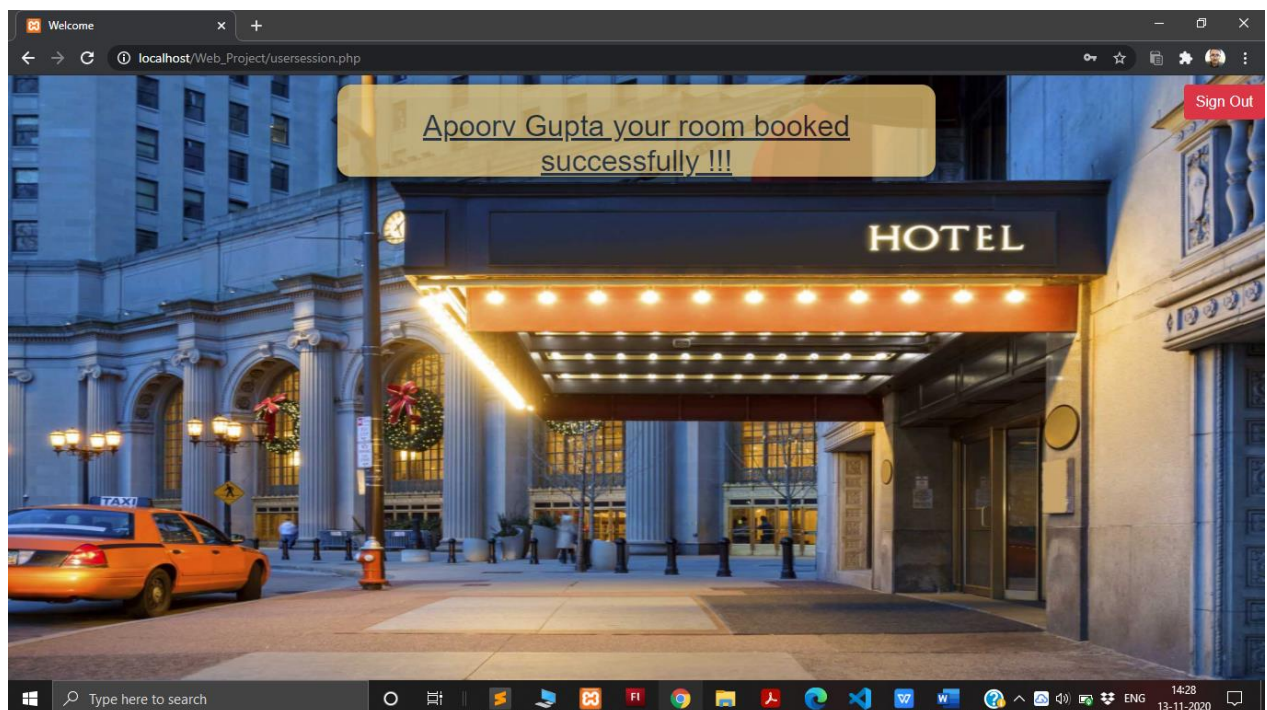
7(e).Payment Page



The screenshot shows a web browser window with the address bar displaying "localhost/Web_Project/payment.html". The background image is a night scene of a hotel entrance with a sign that says "HOTEL" and a yellow taxi in the foreground. Overlaid on this is a semi-transparent yellow form titled "Payment Mode". The form contains the following fields:

- Card Type: Debit Card (dropdown menu)
- Expirt Date: Jun (dropdown) 2024 (dropdown)
- Card No: 510236569856 (text input)
- Card Name: Apoorv Gupta (text input)
- CVV No: ... (text input)
- Enter OTP: (text input)

At the bottom of the form are two buttons: "Pay" and "Cancel". The Windows taskbar at the bottom shows the time as 14:28 on 13-11-2020.



7(f).Database

The image displays three sequential screenshots of the phpMyAdmin web interface, showing different tables in the 'userdb' database. The browser address bar indicates the URL: localhost/phpmyadmin/sql.php?server=1&db=userdb&table=users&pos=0.

Table: users

Showing rows 0 - 8 (9 total. Query took 0.0011 seconds)

```
SELECT * FROM `users`
```

Options: Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

				id	username	password	created_at
<input type="checkbox"/>	Edit	Copy	Delete	1	RA1711003011310	\$2y\$10\$oa11Nf.2S14JUN.6HE4j1OTxnpTFCKsR4DmXdsIgKy...	2020-10-05 09:09:24
<input type="checkbox"/>	Edit	Copy	Delete	2	Mohit	\$2y\$10\$bwK0kYE6uijzgWaZYDphxePqYqZmY0i0NFRXzooAm...	2020-10-05 09:10:23
<input type="checkbox"/>	Edit	Copy	Delete	6	Mahesh	\$2y\$10\$C24bDFtIthmx.LMMFK3i.mYV148pr/U6RfxRGHRQT...	2020-10-05 11:56:10
<input type="checkbox"/>	Edit	Copy	Delete	7	Rishika	\$2y\$10\$wy/V7kpS6olcpajlmsDuObD3Bc7hE0Kb3bO3WQWZJ...	2020-10-06 10:56:59
<input type="checkbox"/>	Edit	Copy	Delete	8	Kuldeep	\$2y\$10\$u1dTP2bFuOUVFK2S10FuwvGZqOcGSME04PEPkDgH...	2020-10-31 18:45:11
<input type="checkbox"/>	Edit	Copy	Delete	9	Neelesh	\$2y\$10\$JNtKaQFqZq3XPlCxHS9uWP1Z83p966v1lcXuxulnR...	2020-11-04 11:24:33
<input type="checkbox"/>	Edit	Copy	Delete	10	Ramesh	\$2y\$10\$NBMo4M.uq/wkFC24LaP.DAo1mVYT1PyK/V88zqqz8...	2020-11-04 11:29:37
<input type="checkbox"/>	Edit	Copy	Delete	11	Apoorv	\$2y\$10\$cnOG8ienlOlPxoXWL3YEG05de9S4ayB2VxZfu0BmLq...	2020-11-10 20:16:46
<input type="checkbox"/>	Edit	Copy	Delete	12	Apoorv Gupta	\$2y\$10\$swlgh4VCOiqEDb1o1L9eOBcTC0OQCbQnay/TqUG2PM...	2020-11-13 14:26:57

Options: Check all | With selected: Edit | Copy | Delete | Export

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Console

Table: booking

Showing rows 0 - 0 (1 total. Query took 0.0016 seconds)

```
SELECT * FROM `booking`
```

Options: Show all | Number of rows: 25 | Filter rows: Search this table

					id	u_id	username	check_in	check_out	room	hotel	prices
<input type="checkbox"/>	Edit	Copy	Delete		30	12	Apoorv Gupta	2020-11-13	2020-11-21	A/C	ITC Rajputana	Rs.5000(Single A/C)

Options: Check all | With selected: Edit | Copy | Delete | Export

Show all | Number of rows: 25 | Filter rows: Search this table

Query results operations: Print | Copy to clipboard | Export | Display chart | Create view

Bookmark this SQL query

Label: ☐ Let every user access this bookmark

Console

Table: payment

Showing rows 0 - 0 (1 total. Query took 0.0014 seconds)

```
SELECT * FROM `payment`
```

Options: Show all | Number of rows: 25 | Filter rows: Search this table

					p_id	u_id	username	card_type	months	years	card_no	card_name	cvv	pass
<input type="checkbox"/>	Edit	Copy	Delete		16	12	Apoorv Gupta	debit	Jun	2024	510236569856	Apoorv Gupta	\$2y\$1	\$2y\$10\$ZV3y5QIPk3fry.Sk9l

Options: Check all | With selected: Edit | Copy | Delete | Export

Show all | Number of rows: 25 | Filter rows: Search this table

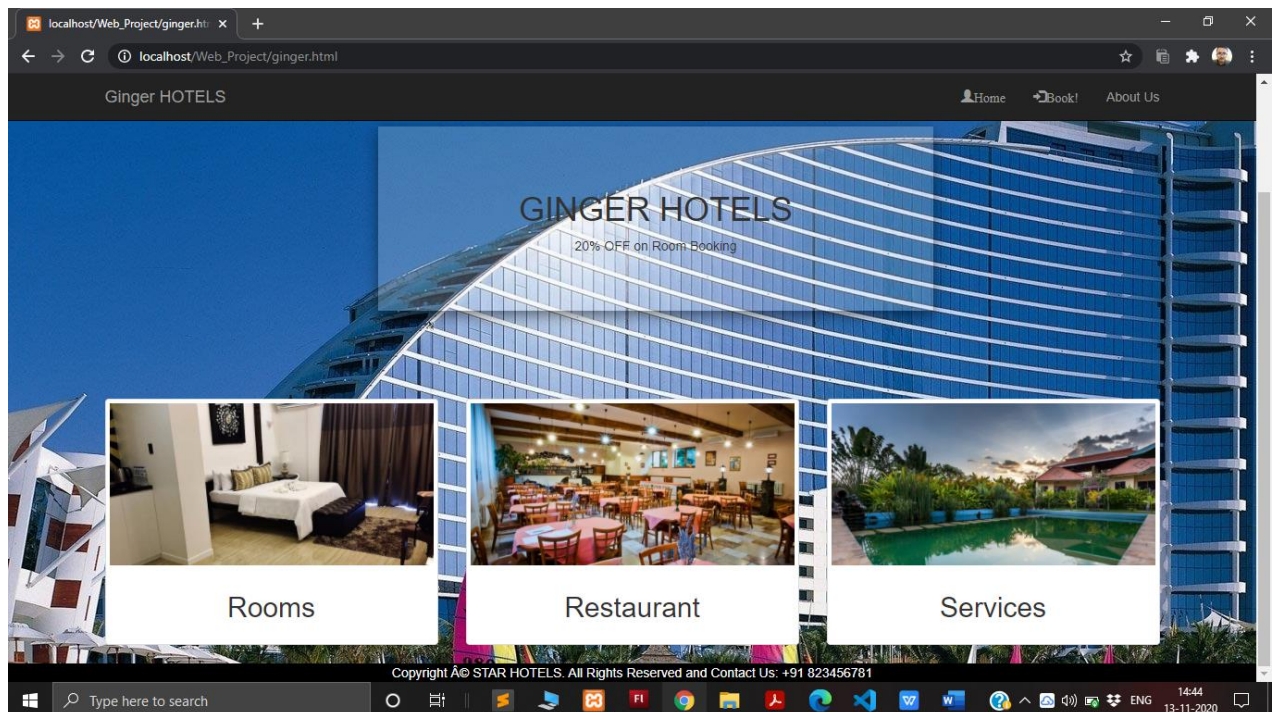
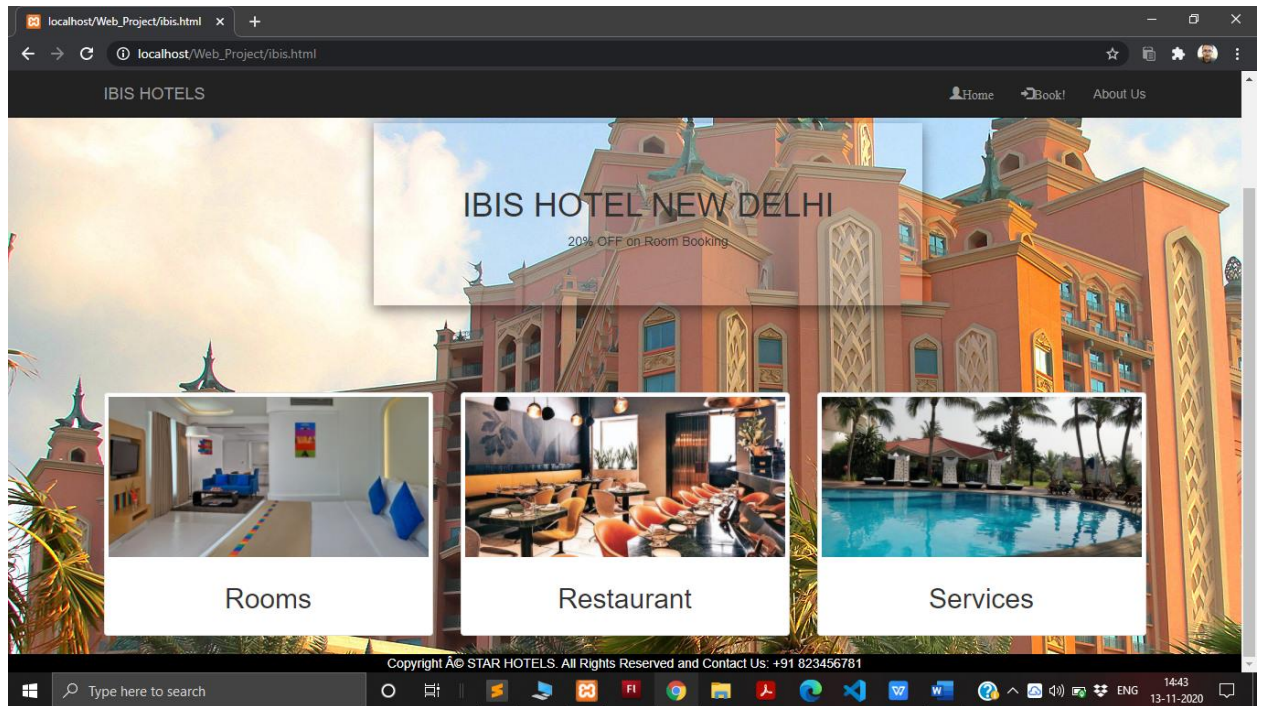
Query results operations: Print | Copy to clipboard | Export | Display chart | Create view

Bookmark this SQL query

Label: ☐ Let every user access this bookmark

Console

7(g).View Page



CHAPTER 8.

CONCLUSION AND FUTURE WORK

8(a).Conclusion

The site was successfully build using different web technologies like HTML, CSS, JS, Php, Bootstrap, MySql.

This project is designed to meet the requirements of a Hotel Management System.

It has been developed as a website for the purpose using different frontend, backend and database technologies.

Overall, the project teaches us the essential skills like:

- Using frontend and backend technologies together with the use of MYSQL for database management and PHP for backend.
- Understanding the different web concepts like html, css,php,bootstrap etc. for a fully functional website.
- Tools used: Xampp , VS code , Sublime text

8(b).Future work :-

The future work for this project could comprise of following components :-

- Inclusion of third party banking system for transaction.
- Admin login to enable admin to automatically update the newly added hotels.
- Chatbot for providing a better customer support services.
- Hotel suggestion based on recent transactions (using ML algorithms) .

CHAPTER 9.

REFERENCES

1. www.w3schools.com
2. www.youtube.com
3. www.stackoverflow.com
4. www.tutorialspoint.com