

Scenario

A Pet boarding agency wants to reach out to more customers by providing an online platform for the pet owners to avail various facilities for their pets such as boarding, day care facility, pet's day out, pool sessions, grooming etc. In this regard students are required to develop a web application to cater to the business needs.

Part A

- A.1 Identification of 6-10 Functional Requirements and 5 Non-Functional Requirements.**
- A.2 Design of ER diagram for the identified functional requirements using DIA tool.**

Overview:

The Pet boarding agency “PETSPACE” for which the web application is developed, it has services offered such as Pet Day Care, Pet Day Out, Pet Grooming, Pet Pool Sessions which has corresponding prices. The Website displays the essential details in the home page, but in order for customer to book a service, he needs to register with Username, password, mobile. While the login is using Username and password. Then in the user page, the application displays the services with corresponding services, and two options, one to book a service and the other is table of previous appointments. In booking a service, user selects one or more services and selects the date and time of appointment. Then it is submitted to the application, which leads to payment where user can make payment or cancel payment. In the Previous_Appointment, the user is displayed with the appointment details with appointment Id, Payment_Status, Services_Chosen, Total_Charge. Lastly the user also has the option to logout of the application.

Solution to Question A.1:

Functional Requirements

Functional requirements

- FR1:** The application should allow the user to login using username and password
- FR2:** The application should allow the user to register and then login through username and password mobile number
- FR3:** The application should display the services offered at the pet space center with their respective costs
- FR4:** The application should allow the user to select the service(s) from the list displayed
- FR5:** The application should display the available time for the service
- FR6:** The application should allow the user to select from available time slot
- FR7:** The application should generate a receipt of confirmation for the service selected with the fee to be paid at the time of check in
- FR8:** The application should allow the user to cancel the selected service
- FR9:** The application should display the appointments set for the user.

Non-Functional Requirements:

- NFR1:** The system should be user-friendly. The UI should be simple enough for everyone to understand and get the relevant information without any special training
- NFR2:** The system should be accurate, to display correct total price for selected services
- NFR3:** The system should be maintainable, adding new feature should be simple
- NFR4:** The system should be secure, because it holds the sensitive information such as personnel information, payment information, it can be vulnerable to data breaches.
- NFR5:** The system should support multiple languages and cultures to allow users from diverse backgrounds to use it effectively.

E-R Diagram

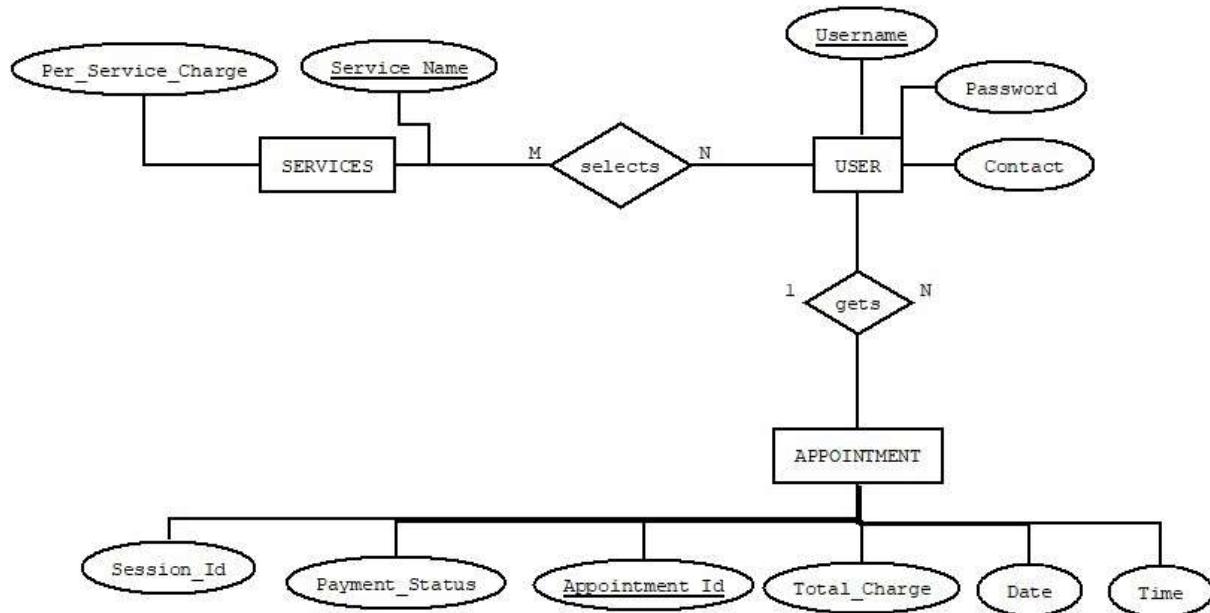


Figure 1: PetSpace E-R diagram

Analysis of E-R diagram

Based on the functional requirements, the E-R diagram identifies three entities SERVICES, USER, APPOINTMENT.

Each of these entities have the attributes as follows

SERVICES: Service_Name (primary key since two services cannot have same name and cannot be null) and Per_Service_Charge (defines the charge for each service)

USER: Username (a primary key, since each user selects the unique username), Password and Contact.

APPOINTMENT: Appointment_Id (Primary key for each appointment), Session_Id (a unique number generated for each user session so that it helps in classifying different appointments), Total_Charge (of all the services chosen), Date and Time of the service, Payment_Status (which is set to either Yes or No).

The cardinality between user and appointment is 1:N, which states that 1 user can have multiple assignments.

While implementing the table, the username is taken as a foreign key attribute for appointment

The cardinality between user and services is M:N, which states that M user can select N services

While the table implementation, since it follows M:N cardinality, third table with the primary key of both SERVICES and USER is created.

Part B

B1.1 Implementation of Database

Sql Queries

```
-- Create database
CREATE DATABASE petspace;

-- Use database
USE petspace;

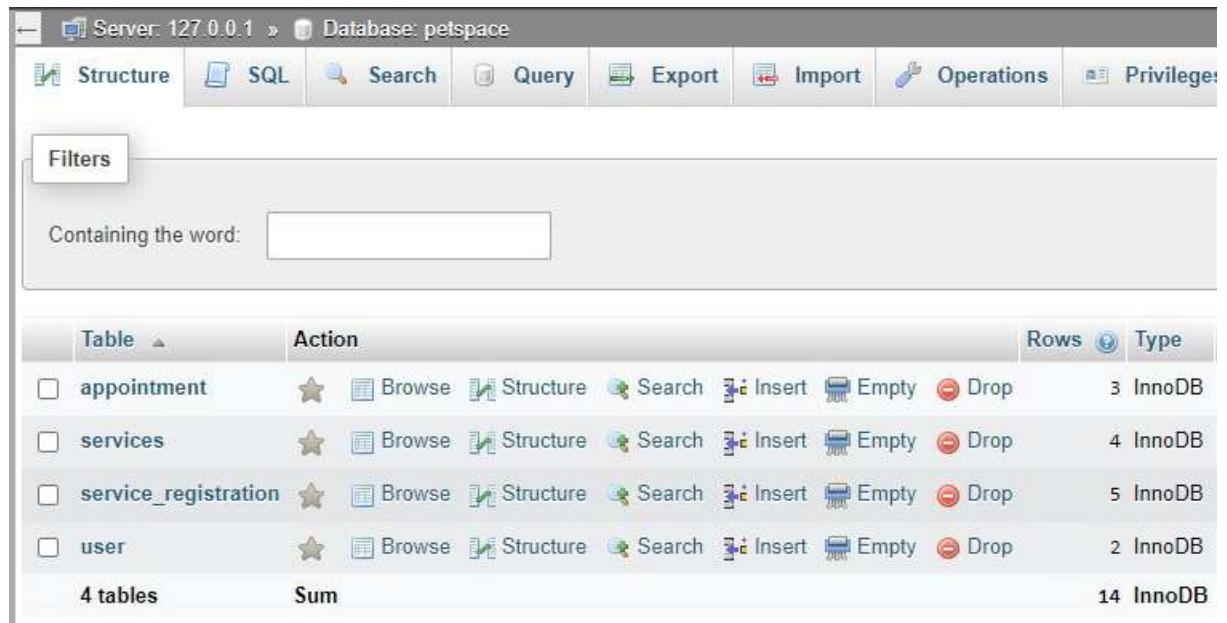
-- Create service table
CREATE TABLE service (
    services VARCHAR(30) PRIMARY KEY,
    per_service_charge int(30)
);

-- Create user table
CREATE TABLE user (
    username VARCHAR(30) PRIMARY KEY,
    password VARCHAR(30),
    contact int(20)
);

-- Create service_registration table
CREATE TABLE service_registration (
    S1_No INT PRIMARY KEY,
    Session_Id INT,
    User VARCHAR(30),
    Service VARCHAR(30),
    FOREIGN KEY (User) REFERENCES user(username),
    FOREIGN KEY (Service) REFERENCES service(services)
);

-- Create appointment table
CREATE TABLE appointment (
    appointment_Id INT PRIMARY KEY,
    Total_charge int(30),
    Date DATE,
    time TIME,
    Session_Id INT,
    payment VARCHAR(30),
    User VARCHAR(30),
    FOREIGN KEY (User) REFERENCES user(username)
);
```

PhpMyadmin Database

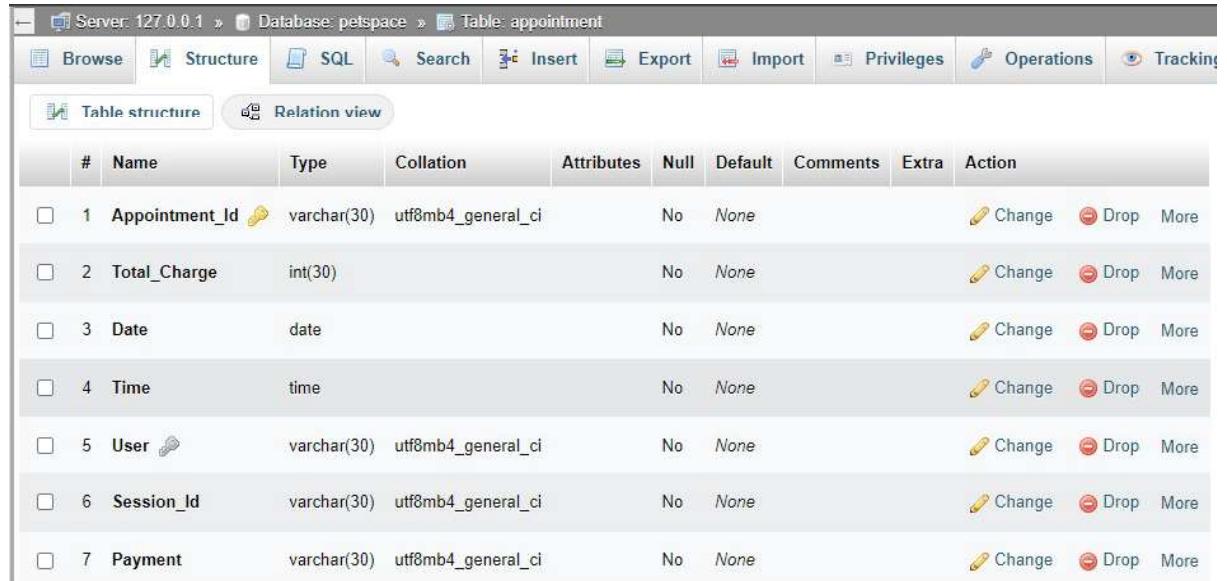


The screenshot shows the PhpMyAdmin interface with the following details:

- Server:** 127.0.0.1
- Database:** petspace
- Structure:** The active tab.
- SQL, Search, Query, Export, Import, Operations, Privileges:** Other tabs in the header.
- Filters:** A sidebar with a search input field labeled "Containing the word: []".
- Table List:**

Table	Action	Rows	Type
appointment		3	InnoDB
services		4	InnoDB
service_registration		5	InnoDB
user		2	InnoDB
4 tables	Sum	14	InnoDB

Figure 2: Tables in Database



The screenshot shows the structure of the appointment table in the petspace database:

- Server:** 127.0.0.1
- Database:** petspace
- Table:** appointment
- Structure:** The active tab.
- SQL, Search, Insert, Export, Import, Privileges, Operations, Tracking:** Other tabs in the header.
- Table Structure View:** The active view.
- Attributes:**

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	Appointment_Id	varchar(30)	utf8mb4_general_ci		No	None			Change Drop
2	Total_Charge	int(30)			No	None			Change Drop
3	Date	date			No	None			Change Drop
4	Time	time			No	None			Change Drop
5	User	varchar(30)	utf8mb4_general_ci		No	None			Change Drop
6	Session_Id	varchar(30)	utf8mb4_general_ci		No	None			Change Drop
7	Payment	varchar(30)	utf8mb4_general_ci		No	None			Change Drop

Figure 3; Implementation of attributes in appointment table

Server: 127.0.0.1 » Database: petspace » Table: services

[Browse](#) [Structure](#) [SQL](#) [Search](#) [Insert](#) [Export](#) [Import](#)

[Table structure](#) [Relation view](#)

#	Name	Type	Collation	Attributes	Null	Default
1	Service_Name	varchar(30)	utf8mb4_general_ci		No	None
2	Per_Service_Charge	int(30)			No	None

Figure 4: Implementation of table SERVICES

Server: 127.0.0.1 » Database: petspace » Table: user

[Browse](#) [Structure](#) [SQL](#) [Search](#) [Insert](#) [Export](#) [Import](#)

[Table structure](#) [Relation view](#)

#	Name	Type	Collation	Attributes	Null	Default
1	Username	varchar(30)	utf8mb4_general_ci		No	None
2	Password	varchar(30)	utf8mb4_general_ci		No	None
3	Contact	int(10)			No	None

Figure 5: Implementation of table USER

Server: 127.0.0.1 » Database: petspace » Table: service_registration

[Browse](#) [Structure](#) [SQL](#) [Search](#) [Insert](#) [Export](#) [Import](#) [Privileges](#) [Comments](#)

[Table structure](#) [Relation view](#)

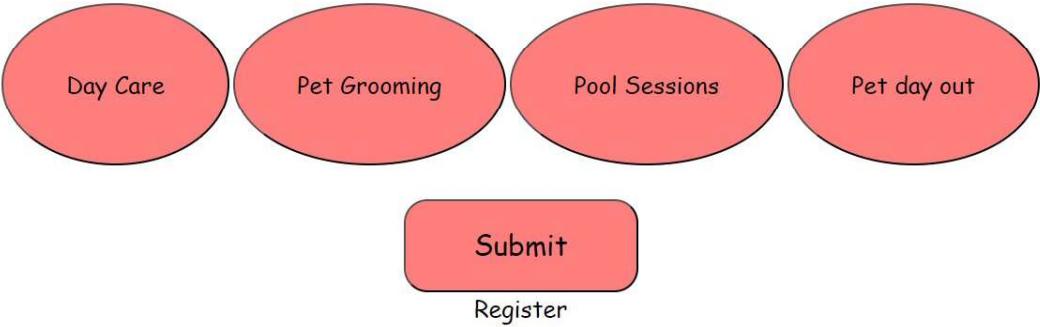
#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	SI_no	int(30)			No	None		AUTO_INCREMENT
2	Session_Id	varchar(30)	utf8mb4_general_ci		No	None		
3	Service	varchar(30)	utf8mb4_general_ci		No	None		
4	User	varchar(30)	utf8mb4_general_ci		No	None		

Figure 6: Implementation of Table Service_Registration.

B1.1 Implementation of UI specifications

Index page: The first page returned to user.

 <p>Welcome to PetSpace</p> <p>Welcome to PetSpace, your ultimate destination for all things related to pets! We are a passionate community of pet lovers, dedicated to providing the best information, products, and services to pet owners all around the world. PetSpace offers a wide range of pet care services to help you take care of your furry friends. From boarding and day care facilities to pool sessions and grooming services, we provide everything you need to ensure that your pets are happy, healthy, and well-cared for. Our team of experienced and certified pet care professionals is dedicated to providing the best possible care for your pets, so you can have peace of mind knowing that your pets are in good hands.</p>	
<p>HTML code</p> <pre><div class="left_column"> <h1 align="center">Welcome to PetSpace </h1> <p id="intro" style="word-wrap: break-word; "> Welcome to PetSpace, your ultimate destination for all things re We are a passionate community of pet lovers, dedicated to provid and services to pet owners all around the world. PetSpace offers take care of your furry friends.From boarding and day care f grooming services,we provide everything you need to ensure and well-cared for.Our team of experienced and certified pet car providing the best possible care for your pets, so you can have pets are in good hands. </p> </div> </pre>	<p>HTML code separates the text body with <div> element. The introduction is written inside the <div> element of class “left_column”. The introduction is written using the paragraph element that has id “intro”. Where as the image tag defines image with relative path and belongs to the class “dog”.</p>
<p>CSS code</p> <pre>body { overflow-y: scroll; } .dog{ display:block; float: right; width:40%; height:395px; margin-bottom:40px; } .left_column{ width:60%; height:80%; display: block; background-color: rgba(255,0,0,0.5); float:left; margin-bottom:40px; }</pre>	<p>The full body element is set to scroll</p> <p>The dog class where the image of dog is defined is set as block element and to appear right it is floated to right. Its height and width are given by the corresponding properties in pixels. The space between the elements after image is set to 40px.</p> <p>The introduction paragraph, which is written inside the class “left_column” has its width decreased so that it can make some space for dog image on right and floated to left. Background color is defined as red with opacity 0.5</p>

	<p>HTML code</p> <pre> <div class="h2" >

 <h2 align="center"> Services We Offer For Your Furry Friends </div> <div class="services"> <form> <button name="Day Care" value="Day_Care">Day Care</button> <button name="Pet Grooming" value="Pet_Grooming">Pet Grooming</button> <button name="Pool Sessions" value="Pool_Sessions">Pool Sessions</button> <button name="Pet Day Out" value="Pet_Day_Out">Pet day out</button> </form> </div>

 <div class="avail"> <form action="login.php"> <input type="submit" name="Avail_Service" >
 <label for="Avail_Service" id="avail_label">Register</label>

 </form> </div> </pre>	<p>The <code><h2></code> tag defines heading for the services offered and is inside class “h2”. All the services are displayed as html buttons, with their corresponding names and values and belongs to the class services.</p> <p>The class avail defines the submit button, to register and label associated with it, which prompts the user to register before booking a service.</p> <p>Once submit is clicked, the login page is loaded.</p>
<p>CSS code</p> <pre> div h2{ clear:both; margin-bottom:40px; font-size: 35px; font-family: cursive; } .services{ clear:both; text-align:center; } .services form button[name="Day Care"]{ font-size:25px; font-family:cursive; padding: 5px; background-color:rgba(255,0,0,0.5); border-radius: 50%; } </pre>	<p>The buttons and the heading are made to align center. The button has the styling which includes cursive font style. Background-color red with opacity 0.5. Border radius set to 50% making it oval in shape.</p> <p>The other buttons and the submit input is also follows the same style.</p>	

Login Page

HTML code

```

<div class="center"> <!-- it is a section of html which is there
  <h1> Login Please <br><br> </h1>
  <form method="post" >
    <div class="txt_field">
      <input type="text" required name='Username'> <!-- i
      <label> Username </label>
    </div>

    <div class="txt_field">
      <input type="password" required name='password'> <!--
      <span></span>
      <label> Password </label>
    </div>
    <br><!-- comment --><br><!-- comment --><br>
    <input type="submit" value='Login' name='submit'> <!--
    <div class='sign_up'>
      <a href= 'Sign_up.php'> Register </a>
    </div>
  </form>
</div>

```

The login page html code has four elements, including, two input field of type text and password. And the othe input field of type submit.

The form method houses the `<div>` tag which contains the input field text and password, and belongs to the class “`txt_field`”.

The achor tag is used to create a link for registration page with the class “`sign_up`”.

CSS code

```

body{
  margin:0;
  padding:0;
  font-family: montserrat;
  background: rgba(255,0,0,0.5);
  height: 100vh; /* checkout */
  overflow: hidden; /* checkout */
}

.center{ /*this is for entire login component */
  position: absolute;
  top: 50%;
  left: 50%;
  transform: translate(-50%, -50%);
  width:400px;
  height: 340px;
  background: white;
  border-radius: 25px;
}

.title h1{
  position: relative;
  padding: 50px 0;
  text-align: center;
  margin: 30px;
  color: white;
  font-size: 35px;
}

.center h1{
  text-align: center;
  padding: 0 0 20px 0;
  border-bottom: 1px solid silver;
}

```

The body is made red with property background and the color has the opacity 0.5.

The overflow in the content of the body is hidden.

The login component is made center with setting its top and left to 50% and its size is defined by height and width, to separate it from the body it is made white background. The corners are rounded to 25px

The title in the login component styled using some text styling properties

```

.txt_field input{
  width: 100%;
  padding: 0 5px;
  height: 40px;
  font-size: 16px;
  border: none;
  background: none;
  outline: none;
}

.txt_field label{
  position: absolute;
  top: 50%;
  left: 5px;
  color: rgba(255,0,0,0.5);
  transform: translateY(-50%);
  font-size: 16px;
  pointer-events:none;
}

input[type='submit']{
  width:100%;
  height: 50px;
  border: 1px solid;
  background: white;
  border-radius: 25px;
  font-size: 18px;
  color: rgba(255,0,0,0.5);
  font-weight:700;
  cursor: pointer;
  outline: none;
}

input[type="submit"]:hover{
  border-color: black;
  transition:.5s;
}

```

and aligned to center using text-align property. Margin is set to 30px to space out from the other fields

The input fields are borderless, and occupy the width of the parent element, i.e. the login component. The background is set to none

The label is with the background color red which complements the body

The submit button has border and corners are rounded using border-radius, width and height are set using the corresponding properties

PHP code

```

<?php
if (isset($_POST['submit'])) {
  $UserName = $_POST['Username'];
  $password = $_POST['password'];
  $con = mysqli_connect("localhost", "root", "", "petspace");
  if (mysqli_connect_errno()) {
    echo "failed to connect to MySQL: " . mysqli_connect_error();
  }
  $query1 = "select Username,Password from 'user' where Username='$UserName' and Password='$password'";
  $result1 = mysqli_query($con, $query1);
  if ($result1) {
    if (mysqli_num_rows($result1) > 0) { //make sure there is atleast one row in a database
      //if atleast one entry present start session
      session_start();
      $_SESSION['Username'] = $UserName;
      header("Location: home.php");
    } else {
      echo '<script>alert("Invalid Credentials");</script>';
    }
  } else {
    echo'<script>alert("Invalid Credentials");</script>';
  }
}
?>

```

The PHP code defines the logic to connect front-end and back-end.

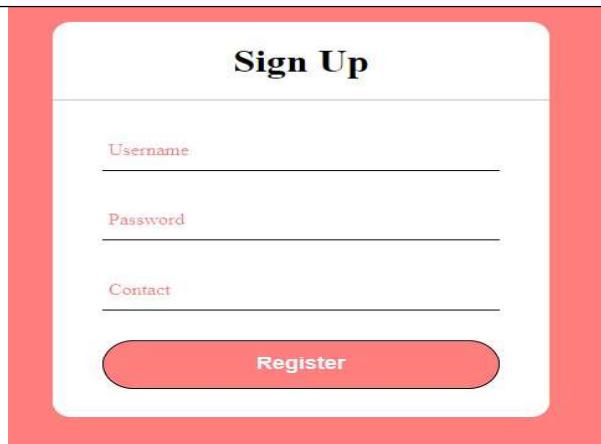
It checks if the submit button is clicked or not, which is evaluated using \$_POST, if it is clicked it would be set to 1.

The input fields inputs are stored in php variables, and the connection to the database is established.

The query is return such that, if the username and password is present in user then return home page, else return invalid credentials.

\$_SESSION['username'] stores the username of session

Sign Up Page



The image shows a 'Sign Up' page with a white background and a red border. At the top center is the title 'Sign Up'. Below it are three input fields: 'Username', 'Password', and 'Contact', each with a label and a horizontal line. At the bottom is a red rounded rectangular button labeled 'Register'.

HTML code

```

<div class="center"> <!-- it is a section of html which is then used
<h1> Sign Up </h1>
<form method="post" >
    <div class="txt_field">
        <input type="text" required name='Username'> <!-- it is
        <label> Username </label>
    </div>
    <div class="txt_field">
        <input type="password" required name='password'> <!-- i
        <span></span>
        <label> Password </label>
    </div>
    <div class="txt_field">
        <input type="number" required name='mobile_number'> <!--
        <span></span>
        <label> Contact </label>
    </div>
    <input type="submit" value='Register' name="submit"> <!-- login
</form>
</div>

```

The HTML code for Sign up page is similar to that of login page, Only contact field of type number is added in registration.

CSS code

CSS code for Sign-up is same as for login.

PHP code

```

<?php
$UserName = $Password = "";

if (isset($_POST['submit'])) {

    $UserName = $_POST['Username'];
    $Password = $_POST['password'];
    $Contact = $_POST['mobile_number'];

    $con = mysqli_connect("localhost", "root", "", "petspace");
    //username: root, password: Yashaswini

    $query = "INSERT INTO 'user' (Username, Password, Contact) VALUES ('$UserName', '$Password', '$Contact')";
    $result = mysqli_query($con, $query);
    if (mysqli_connect_errno()) {
        echo "Failed to connect to MySQL: " . mysqli_connect_error();
    }

    if ($result) {
        echo '<script>alert("Registration successful");</script>';
    } else {
        echo '<script>alert("Registration failed");</script>';
    }
}
?>

```

The PHP code, checks whether the submit button is clicked or not, evaluating the value of it by using `$_POST`, if the value is 1 (true). It establishes the connection between the database using the required credentials

The query to insert the all the inputs taken by the user and stored in php variables is executed, which stores the values in user table And returns if the registration is successful or not.

Home Page

Service	Charge
Pet_Day_Care	300
Pet_Day_Out	650
Pet_Grooming	400
Pool_Sessions	350

HTML code

```

<div class="option">
  <div class="appointment" >
    <form action="appointment.php">
      <input type="submit" name="appointment" value="See Your PreviousAppointments">
    </form>
  </div>
  <div class="services">
    <form action="service_registration.php">
      <input type="submit" name="service_registration" value="Get Appointment">
    </form>
  </div>
</div>
<div>
  <form action="logout.php">
    <input type="submit" name="logout" value="logout">
  </form>
</div>

```

The HTML code for home page defines two input fields of type submit, each housed in different `<div>` tags that corresponds to different classes and different `<form>` tag which specifies the action after submitting that input.

The home page also, defines the logout button of the input type submit

CSS code

```

body{
  background-color:rgba(255,0,0,0.5)
}

.option {
  display: flex;
  justify-content: center;
  align-items: center;
  flex-wrap: wrap;
  gap: 20px;
  position: absolute;
  top: 50%;
  left:30%;
  transform: translateY(-50%);
}

.appointment, .services {
  width: 300px;
  height: 120px;
  background-color: white;
  border-radius: 10px;
  display: flex;
  justify-content: center;
  align-items: center;
}

```

The background color is set to red with opacity 0.5. Both the submit inputs are made to appear center using align-items property which is set to center.

I

The styling of submit buttons include white background set using background-color property. And the corners are rounded using border-radius property. Again they are aligned center using

```

.appointment input[type="submit"], .services input[type="submit"] {
    width: 100%;
    height: 100%;
    background-color: white;
    color: black;
    border: 1px solid black;
    border-radius: 10px;
    font-size: 16px;
    font-weight: bold;
    cursor: pointer;
    transition: background-color 0.2s ease-in-out;
}

table {
    width: 50%;
    border: 1px solid black;
    border-collapse: collapse;
}

th, td {
    text-align: center;
    padding: 8px;
    border: 1px solid black;
    color: black;
}

th {
    background-color: black;
    color: white;
}

```

PHP code

```

<?php
session_start();
$_SESSION['session_id'] = $_SESSION['session_id'];
$Username = $_SESSION["Username"];
$con = mysqli_connect("localhost", "root", "", "petspace");
if (mysqli_connect_errno()) {
    echo "Failed to connect to MySQL: " . mysqli_connect_error();
}
$sql = "SELECT * FROM services";
$result = mysqli_query($con, $sql);
echo "<div style='text-align: center;'>
<table style='width: 50%; margin: auto;' border='1'>
<caption>Service and Charge</caption>
<tr>
<th>Service</th>
<th>Charge</th>
</tr>";
if (mysqli_num_rows($result) > 0) {
    while ($row = mysqli_fetch_assoc($result)) {
        echo "<tr>";
        echo "<td><center>" . $row["Service_Name"] . "</center></td>";
        echo "<td><center>" . $row["Per_Service_Charge"] . "</center></td>";
        echo "</tr>";
    }
} else {
    echo '<script>alert("error");</script>';
}
echo "</table>
</div>";

```

align-items and justify-content.

The border is defined with black

The table displayed in the home page has its width set to 50%, and which appears in the center

The table heading and table data all text alignment are set to center with black border

The PHP code starts the session and save the value of username of session.

The code establishes the connection between database with mysqli_connect

From the table services, it displays all the services and the service charge in the form of table,

The query result in many number of rows, the code is written in such a way that, as long as result >0, fetch the value of particular attribute from that row and display.

If the table is not able to display it prompts an error to the user.

Service-Registration

Service and Charge	
Service	Charge
Pet_Day_Care	300
Pet_Day_Out	650
Pet_Grooming	400
Pool_Sessions	350

Pet Services

Please note to choose the valid time slot between: 7:00AM to 11:00PM
In case invalid time slot is choosen, your appointment will be scheduled on the date mentioned but at the valid slot.

Pet Day Care
 Pet Grooming
 Pool Sessions
 Pet Day Out

Date:

Time:

HTML code

```

<h2 text-align="center">Pet Services</h2>
<br>
<form method="post" >
<div class="options">
    <h3 style="margin:2px;"> Please note to choose the valid time slot between: 7:00AM to 11:00PM <br>
        In case invalid time slot is choosen, your appointment will be scheduled on the date
        mentioned but at the valid slot.</h3>
    <label><input type="checkbox" name="Pet_Day_Care" value="Pet_Day_Care">Pet Day Care</label>
    <label><input type="checkbox" name="Pet_Grooming" value="Pet_Grooming">Pet Grooming</label>
    <label><input type="checkbox" name="Pool_Sessions" value="Pool_Sessions">Pool Sessions</label>
    <label><input type="checkbox" name="Pet_Day_Out" value="Pet_Day_Out" >Pet Day Out</label>
</div>
<br><br>
<div class="label">
    <label for="date_input">Date:</label>
    <input type="date" id="date_input" name="date_input">

    <label for="time_input">Time:</label>
    <input type="time" id="time_input" name="time_input">
<br><br>
</div>

<div class="submit">
    <input type="submit" name="submit" value="submit">
    <br><br>
</div>
</form>

```

The HTML code for Service registration, is defined with four input of type checkbox, grouped under `<div>` tag with class “option” and form method post

Each Checkbox represent the service that can be selected.

The class “label” contains two input tags of the type date and time, which takes user input as date and time

The `<div>` element of class “submit” contains the input of type submit where the user can submit the choices he has made.

<p>CSS code</p> <pre> body{ width: 100%; /* or adjust to the desired overflow-x: hidden; background-color:rgba(255,0,0,0.5); } h2{ text-align:center; } .options{ text-align:center; } input[type="checkbox"] { text-align:center; margin-right: 10px; appearance: none; border-radius: 5px; width: 45px; height: 35px; border: 2px solid black; background-color: white; cursor: pointer; } input[type="checkbox"]:checked { background-color: black; } .submit { text-align:center; border-radius:25px; } .label { display: flex; flex-direction: column; align-items: center; margin-top: 50px; } .label label { display: block; margin-bottom: 10px; font-size: 18px; color: #333; } input[type="date"],input[type="time"] { padding: 10px; font-size: 16px; color: #333; border: 1px solid #ccc; border-radius: 5px; margin-bottom: 20px; width: 100%; max-width: 300px; box-sizing: border-box; } input[type="submit"] { background-color: white; color: black; padding: 10px 20px; border: none; border-radius: 25px; font-size: 20px; cursor: pointer; transition: background-color 0.3s ease-in-out; } </pre>	<p>The CSS code contains the body element with color red of opacity 0.5. The overflow of the content in the body is hidden. The headings are aligned to center using text-align property. The checkbox is styled, where its size is set using width and height, border is defined as black and the corners are rounded with border-radius. Every checkbox is spaced using margin-right property. The checkbox when clicked is colored black which is set using background-color. The label class which houses the date and time, is made the block element and is set to aligned center. The date, time and submit fields are styled to match with the theme.</p>
<p>PHP code</p>	<p>The PHP code starts the session. Every user for every submit he makes on service registration generates new session Id which helps in getting different appointments for different submits.</p>

```

<?php
session_start();
$_SESSION['session_id'] = $session_id;
$Username = $_SESSION["Username"];
$pet_day_care = isset($_POST["Pet_Day_Care"]) ? $_POST["Pet_Day_Care"] : "";
$pet_day_out = isset($_POST["Pet_Day_Out"]) ? $_POST["Pet_Day_Out"] : "";
$pet_grooming = isset($_POST["Pet_Grooming"]) ? $_POST["Pet_Grooming"] : "";
$pool_sessions = isset($_POST["Pool_Sessions"]) ? $_POST["Pool_Sessions"] : "";
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "petspace";
$conn = new mysqli($servername, $username, $password, $dbname);
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}
$sql = "SELECT * FROM services";
$result = mysqli_query($conn, $sql);
echo "<div style='text-align: center;'>
    <table style='width: 50%; margin: auto; border='1'>
        <caption>Service and Charge</caption>
        <tr>
            <th>Service</th>
            <th>Charge</th>
        </tr>";
if (mysqli_num_rows($result) > 0) {
    while ($row = mysqli_fetch_assoc($result)) {
        echo "<tr>";
        echo "<td><center>" . $row["Service_Name"] . "</center></td>";
        echo "<td><center>" . $row["Per_Service_Charge"] . "</center></td>";
        echo "</tr>";
    }
}
if (isset($_POST['submit'])) {
    if (isset($_POST['Pet_Day_Care'])) {
        $query1 = "insert into service_registration(Session_Id,Service,User) values('$session_id','$pet_day_care',";
        $result1 = mysqli_query($conn, $query1);
    }
    if (isset($_POST['Pet_Grooming'])) {
        $query2 = "insert into service_registration(Session_Id,Service,User) values('$session_id','$pet_grooming',";
        $result2 = mysqli_query($conn, $query2);
    }
    if (isset($_POST['Pool_Sessions'])) {
        $query3 = "insert into service_registration (Session_Id,Service,User) values ('$session_id','$pool_sessions',";
        $result3 = mysqli_query($conn, $query3);
    }
    if (isset($_POST['Pet_Day_Out'])) {
        $query4 = "insert into service_registration (Session_Id,Service,User) values ('$session_id','$pet_day_out',";
        $result4 = mysqli_query($conn, $query4);
    }
    $random_number = uniqid();
    $query5 = "SELECT Service FROM service_registration WHERE User='$Username' and Session_Id='$session_id'";
    $result5 = mysqli_query($conn, $query5);
    $total_charge = 0; // initialize the total charge variable
    while ($row1 = mysqli_fetch_assoc($result5)) {
        $service = $row1['Service'];
        $query51 = "SELECT Per_Service_Charge FROM services WHERE Service_Name='$service' ";
        $result51 = mysqli_query($conn, $query51);
        $row2 = mysqli_fetch_assoc($result51);
        $per_service_charge = $row2['Per_Service_Charge'];
        $total_charge += $per_service_charge;
    }
    echo "Total charge: " . $total_charge;
    $date_input = $_POST['date_input'];
    $time_input = $_POST['time_input'];
}

```

The username of session is stored to php variable using `$_SESSION`.

All the values of checkbox is stored in php variables.

Database connection is made

Here also, to aid user, all the services and respective charges are displayed using sql query on the service table using `<Table>` tag.

Once Submit is made, it checks for all Checkbox value is set or not if set it executes the query such that to insert the username and service and session id to insert to the table service_registration.

The query is made such that to select all the services and user with the same session_Id and the result fetches various rows, which has the same session_Id and using which the total charge is calculated by carrying out other query to select per_service_charge and calculate the total charge for all services.

The random number is nothing but the appointment number.

```

echo "Total charge: " . $total_charge;
$date_input = $_POST['date_input'];
$time_input = $_POST['time_input'];
$query6 = "insert into appointment (Date,Time,User,Appointment_Id,Total_Charge,Session_Id) values ('$date_input','$time_input','$user','$Appointment_Id','$total_charge','$Session_Id')";
$result6 = mysqli_query($conn, $query6);
ob_start();
echo '<script>alert("Your Choice is been saved! ");</script>';
header("refresh:0.1;url=payment.php");
$output = ob_get_clean();
echo $output;

```

Then all this details are updated in appointment table.

Once, the submit is made the payment page is loaded.

Make Payment

Here is your summary of appointment

Make_Payment
Cancel

Appointment Summary						
Appointment_Id	Total_Charge	Date	Time	User	Service chosen	
642ed0d7920dc	700	2023-04-18	12:36:00	Yashaswini63	Pet_Day_Care	Pet_Grooming

HTML code

```

<form method="post">
  <div class="submit">
    <input type="submit" name="Make_Payment" value="Make_Payment">
    <br><br><br>
  </div>
  <div class="submit">
    <input type="submit" name="Cancel" value="Cancel">
    <br><br><br>
  </div>
</form>

```

The HTML code for payment page consists of two input of type submit which is housed in class “submit” One for the user choice to make_payment and the other for Cancel.

CSS code

The CSS code, includes with body color set to red with opacity of 0.5.

The heading are aligned to center using

```

body {
    background-color: rgba(255, 0, 0, 0.5);
}
h1 {
    text-align: center; }
table {
    margin: auto;
    border-collapse: collapse; }
th, td {
    border: 1px solid black;
    padding: 10px;
    text-align: center; }
input[type="submit"] {
    display: block;
    margin: auto;
}
.center form{
    padding: 0 40px;
    box-sizing: border-box;
}
input[type='submit']{
    width:20%;
    height: 50px;
    border: 1px solid;
    background: white;
    border-radius: 25px;
    font-size: 18px;
    color: rgba(255,0,0,0.5);
    font-weight:700;
    cursor: pointer;
    outline: none;
}

```

text-align property.

The input of submit is styled with the size with width and height, and border of 1px. The corners are rounded using border-radius, and the background is made white to separate it from the background

The table is displayed by the php code. And it is styled and made center using text-align property and border is made black.

PHP code

```

<h1> Here is your summary of appointment </h1>
<?php
session_start();
$session_id = $_SESSION['session_id'];
$Username = $_SESSION["Username"];
$con = mysqli_connect("localhost", "root", "", "petspace");
if (mysqli_connect_errno()) {
    echo "Failed to connect to MySQL: " . mysqli_connect_error();
}
$sql = "select * from appointment where Session_Id='".$session_id."'";
$result = mysqli_query($con, $sql);
echo "<table style='width:50%' border='1'>
    <caption> Appointment Summary </caption>
    <tr>
        <th>Appointment_Id</th>
        <th>Total_Charge</th>
        <th>Date</th>
        <th>Time</th>
        <th>User</th>
        <th>Service choosen </th>
    </tr>";

```

The php code, starts the session and stores the username using \$_SESSION of username.

The code connects to the database

The query select all the attributes from the appointment and display it as a table

```

if (mysqli_num_rows($result) > 0) {
    while ($row = mysqli_fetch_assoc($result)) {
        echo "<tr>";
        echo "<td><center>" . $row["Appointment_Id"] . "</center></td>";
        echo "<td><center>" . $row["Total_Charge"] . "</center></td>";
        echo "<td><center>" . $row["Date"] . "</center></td>";
        echo "<td><center>" . $row["Time"] . "</center></td>";
        echo "<td><center>" . $row["User"] . "</center></td>";
        $session_id = $row["Session_Id"];
        $sql1 = "select Service from service_registration where Session_Id='$session_id'";
        $result1 = mysqli_query($con, $sql1);
        while ($row0 = mysqli_fetch_assoc($result1)) {
            echo "<td><center>" . $row0["Service"] . "</center></td>";
            continue;
        }
    }
} else {
    echo '<script>alert("error");</script>';
}
if (isset($_POST['Make_Payment'])) {
    $status = 'yes';
    $sql = "UPDATE appointment SET Payment='$status' Where Session_Id = '$session_id' ";
    $result = mysqli_query($con, $sql);
    ob_start();
    echo '<script>alert("Payment_Successful ");</script>';
    header("refresh:0.1;url=home.php");
    $output = ob_get_clean();
    echo $output;
}
if (isset($_POST['Cancel'])) {
    $status = 'no';
    $sql = "UPDATE appointment SET Payment='$status' Where Session_Id = '$session_id' ";
    $result = mysqli_query($con, $sql);
    ob_start();
    echo '<script>alert("Payment_Not_Successful ");</script>';
    header("refresh:0.1;url=home.php");
    $output = ob_get_clean();
    echo $output;
}

```

If the payment is clicked then the payment status is set to yes in appointment where the session_id is set to current session_Id

Cancel payment is clicked then the payment status is set to no in appointment where the session_id is set to current session_Id

Then the previous appointment page is loaded.

Previous Appointment

Service and Charge								
Service				Charge				
					300			
					650			
					400			
					350			
Your Appointments								
Appointment_Id	Session_id	Total_Charge	Date	Time	User	Paymet	Service choosen	
642d8781af7f9	642d87816b76a	700	2023-04-12	20:08:00	Yashaswini63	yes	Pet_Day_Care	Pet_Grooming
642d87cd1629f	642d87ccdd9a9	350	2023-04-27	20:11:00	Yashaswini63	yes	Pool_Sessions	
642d8817caf1	642d8817a2db5	700	2023-04-27	20:11:00	Yashaswini63	yes	Pet_Day_Care	Pet_Grooming
642ed0d7920dc	642ed0d75ab2c	700	2023-04-18	12:36:00	Yashaswini63		Pet_Day_Care	Pet_Grooming

CSS code

The CSS code colors the whole body with background-color red with

<pre> body { background-color: rgba(255, 0, 0, 0.5); } table { width: 50%; border: 1px solid black; border-collapse: collapse; text-align:center; } th, td { text-align: center; padding: 8px; border: 1px solid black; color: black; } th { background-color: black; color: white; } caption { font-size: 24px; font-weight: bold; margin-bottom: 10px; } </pre>	<p>opacity 0.5.</p> <p>Table width is set to 50%, with black border and aligned center</p> <p>The table header and table data also is styled where the text is also made to align center and color black</p> <p>The caption again highlighted with bold and font-size 24px.</p>
<p>PHP code</p> <pre> <?php session_start(); \$_SESSION_id = \$_SESSION['session_id']; \$Username = \$_SESSION["Username"]; \$con = mysqli_connect("localhost", "root", "", "petspace"); if (mysqli_connect_errno()) { echo "Failed to connect to MySQL: " . mysqli_connect_error(); } \$sql = "select * from services"; \$result = mysqli_query(\$con, \$sql); echo "<table style='width:50% border='1' text-align='center'> <caption> Service and Charge </caption> <tr> <th>Service</th> <th>Charge</th> </tr>"; if (mysqli_num_rows(\$result) > 0) { while (\$row = mysqli_fetch_assoc(\$result)) { echo "<tr>"; echo "<td><center>" . \$row["Service_Name"] . "</center></td>"; echo "<td><center>" . \$row["Per_Service_Charge"] . "</center></td>"; } } else { echo '<script>alert("error");</script>'; } </pre>	<p>The PHP code starts the session</p> <p>The username of the session is stored using <code>\$_SESSION</code>.</p> <p>The connection is established using <code>mysqli_connect</code></p> <p>To aid users all the services and the corresponding charges are displayed using the query and is displayed as table.</p> <p>To display all the</p>

```

echo "\n\n";
$sql = "select * from appointment";
$result = mysqli_query($con, $sql);
echo "<table style='width:50%' border='1'>
    <caption> Your Appointments </caption>
    <tr>
        <th>Appointment_Id</th>
        <th>Session_id</th>
        <th>Total_Charge</th>
        <th>Date</th>
        <th>Time</th>
        <th>User</th>
        <th>Paymet</th>
        <th>Service choosen </th>
    </tr>";
if (mysqli_num_rows($result) > 0) {
    while ($row = mysqli_fetch_assoc($result)) {
        echo "<tr>";
        echo "<td><center>" . $row["Appointment_Id"] . "</center></td>";
        echo "<td><center>" . $row["Session_Id"] . "</center></td>";
        echo "<td><center>" . $row["Total_Charge"] . "</center></td>";
        echo "<td><center>" . $row["Date"] . "</center></td>";
        echo "<td><center>" . $row["Time"] . "</center></td>";
        echo "<td><center>" . $row["User"] . "</center></td>";
        echo "<td><center>" . $row["Payment"] . "</center></td>";
        $session_id = $row["Session_Id"];
        $sql1 = "select Service from service_registration where Session_Id='$session_id'";
        $result1 = mysqli_query($con, $sql1);
        while ($row0 = mysqli_fetch_assoc($result1)) {
            echo "<td><center>" . $row0["Service"] . "</center></td>";
            continue;
        }
    }
}

```

appointments taken by the user, the query selects all the attributes from the appointment table

The appointments are displayed as table with table headers as the attribute names.

The query results in multiple rows, where inside the loop, the value of the particular attribute in particular row is fetched

The services chosen for an appointment is fetched using the session_id stored in appointment table after making payment, The inner query which searches for the services with same session_id is chosen and displayed in the table.

B1.3 Results and comments

Results

Welcome to PetSpace

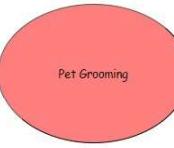
Welcome to PetSpace, your ultimate destination for all things related to pets! We are a passionate community of pet lovers, dedicated to providing the best information, products, and services to pet owners all around the world. PetSpace offers a wide range of pet care services to help you take care of your furry friends. From boarding and day care facilities to pool sessions and grooming services, we provide everything you need to ensure that your pets are happy, healthy, and well-cared for. Our team of experienced and certified pet care professionals is dedicated to providing the best possible care for your pets, so you can have peace of mind knowing that your pets are in good hands.



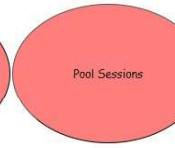
Services We Offer For Your Furry Friends



Day Care



Pet Grooming



Pool Sessions



Pet day out

Submit

Register

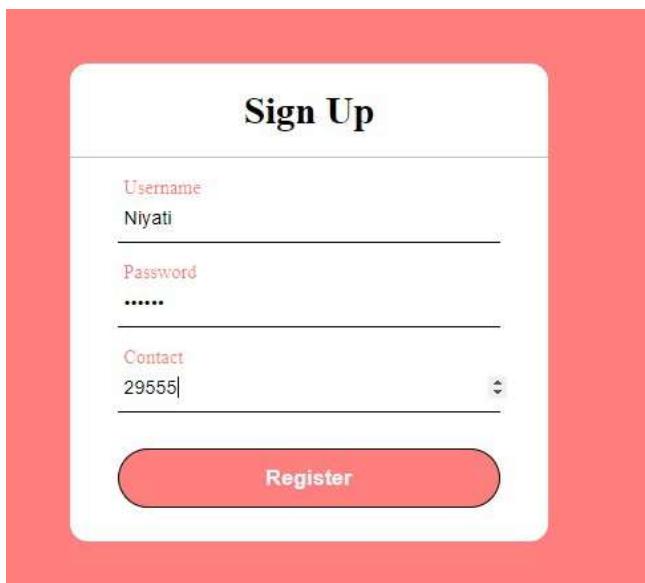
Have a Special Request or Concern

Contact us:
 Sineha
 Veterinarian
 +91 7582859632
 sineha@gmail.com

This is the index page, This page is written first to the user when the user opens the website, The intro to the websites defines the theme of the website, all the four services are the buttons which has no actions on click. The submit when clicked directs to login page, the contact section defines the contact information of the petspace owner



The login page takes the user input as the username and password and the option to login. If the user is new to website he can register by clicking on it.



The Sign_up section defines the user to input username, which should be unique and password and the contact.

Service and Charge

Service	Charge
Pet_Day_Care	300
Pet_Day_Out	650
Pet_Grooming	400
Pool_Sessions	350

See Your Previous Appointments

Get Appointment

Once logged in the user is displayed with all the services and its corresponding charge with two options to take new appointment, or to look at previous appointments.\

Service and Charge	
Service	Charge
Pet_Day_Care	300
Pet_Day_Out	650
Pet_Grooming	400
Pool_Sessions	350

Pet Services

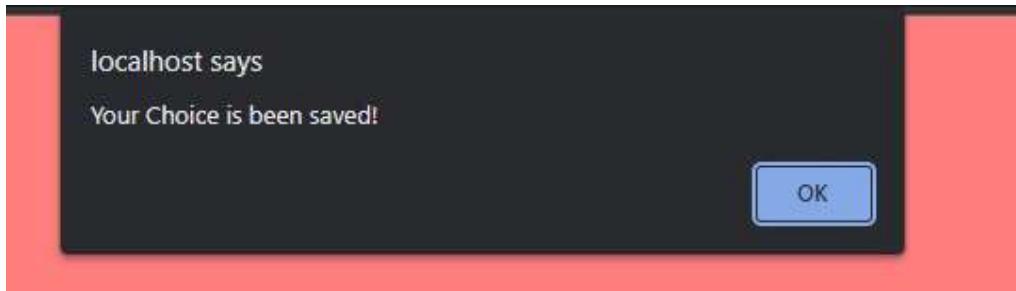
Please note to choose the valid time slot between: 7:00AM to 11:00PM
In case invalid time slot is chosen, your appointment will be scheduled on the date mentioned but at the valid slot.

Pet Day Care Pet Grooming Pool Sessions Pet Day Out

Date:

Time:

Once the option to take new appointment is chosen it returns to this page, where it displays the services and the corresponding prices, the user can select multiple services date and time and then submit to the website.



This is the notification which comes when the choices are submitted to the website while taking the appointment.

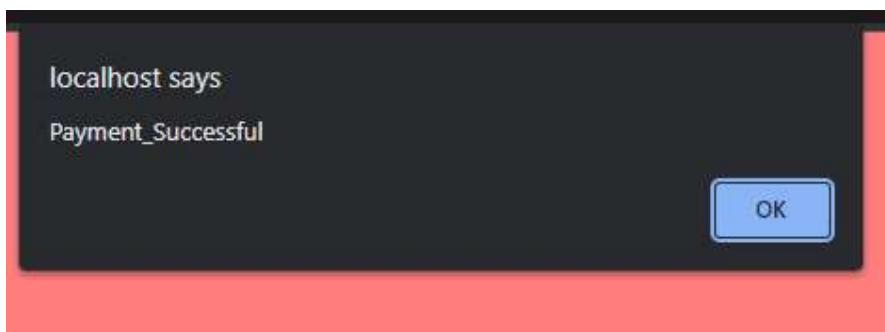
Here is your summary of appointment

[Make_Payment](#)

[Cancel](#)

Appointment_Id	Total_Charge	Date	Time	User	Service choosen	
642edb635fd90	700	2023-04-13	23:18:00	Yashaswini63	Pet_Day_Care	Pet_Grooming

The appointment summary is displayed with two options make_payment or canceling the payment.



Once the make_payment is chosen, then it displays this notification

Service and Charge								
Service				Charge				
Pet_Day_Care				300				
Pet_Day_Out				650				
Pet_Grooming				400				
Pool_Sessions				350				

Your Appointments								
Appointment_Id	Session_id	Total_Charge	Date	Time	User	Paymet	Service choosen	
642edb635fd90	642edb633c112	700	2023-04-13	23:18:00	Yashaswini63	yes	Pet_Grooming	
642edcbd7071e	642edcbd52882	700	2023-04-13	23:18:00	Yashaswini63	yes	Pet_Day_Care	Pet_Grooming

This is the previous appointment made by the user. displayed when the user chooses the option to see the previous appointment list.

Comments: The entire website is developed using HTML, CSS and PHP. The user interface for the sql is used by phpmyadmin. The website doesn't take into account the other many services offered at various pet care spots, nor validate the time and date, but displays the warning to display the valid time and date failing to which manually at the centers the time will be changed.