 **Unit - 3**

Q1) Design a web page to validate credit card number according to the below specification. Following tables outlines the major credit cards you might want to validate, along with their allowed prefixes and lengths.

# Major Credit Cards, Their Prefixes, and Lengths

|  |  |  |
| --- | --- | --- |
| **Card Type** | **Prefixes** | **Length** |
| Master Card | 51-55 | 16 |
| Visa | 4 | 13,16 |
| American Express | 34,37 | 15 |

**Code: -**

<html>

<head>

<title>JS Answer One</title>

<style>

body{

background-color: rgb(192, 186, 186);

}

h1 {

text-align: center; font-size: 50px;

text-decoration: underline;

}

.main {

text-align: center; font-size: 35px; width: 50%;

background-color: rgb(242, 230, 230);

margin: 0 auto; padding: 15px; border-radius: 30px;

}

input {

width: 250px; height: 35px;

}

.btn {

background-color: greenyellow; width: 100px;

height: 30px;

border-radius: 30px;

}

</style>

</head>

<body>

<h1>Credit Card Validation</h1>

<div class="main">

<div class="main1">

<label for="cardNumber">Credit Card Number: </label>

<input type="text" id="cardNumber" placeholder="Enter Your Card Number">

</div>

<button class="btn" onclick="validate()">Validate</button>

<div class="result" id="result"></div>

</div>

<script>

function validate() {

var cardNumber = document.getElementById('cardNumber').value; var valid = false;

var cardType = "";

if (/^4\d{12}(?:\d{3})?$/.test(cardNumber)) { valid = true;

cardType = "Visa";

}

else if (/^5[1-5]\d{14}$/.test(cardNumber)){ valid = true;

cardType = "Mastercard";

}

else if (/^3[47]\d{13$/.test(cardNumber))

{

valid = true;

cardType = "American Express";

}

var resultValid = document.getElementById("result"); if(valid){

resultValid.innerHTML = "The card number is valid. <br>Card Type: "+cardType; resultValid.style.color="green";

}

else{

resultValid.innerHTML = "The card number is invalid,"; resultValid.style.color="red";

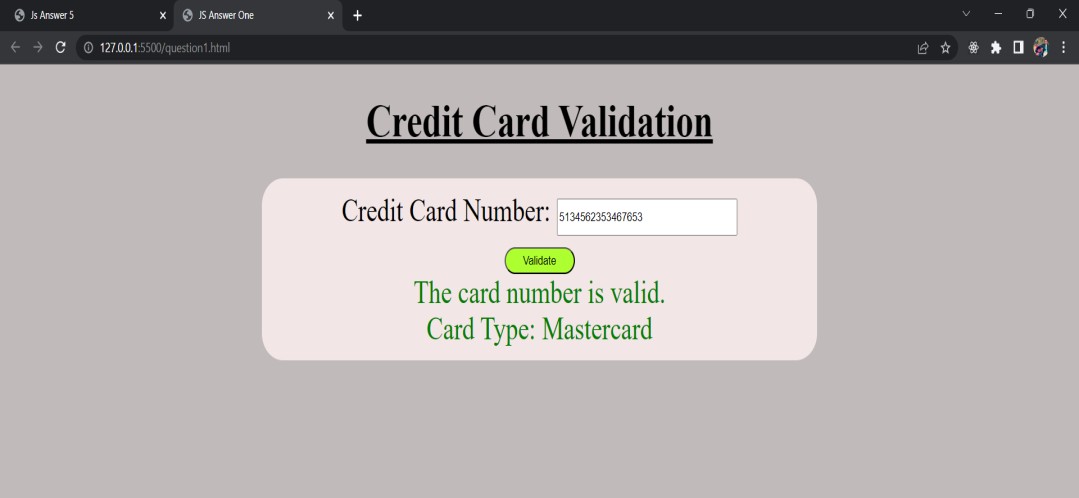
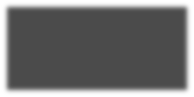
}

}

</script>

</body>

</html>



Q2) Write a java script to validate the following fields in a registration page:

* Name (should contain alphabet and the length should not be less than 6 characters).
* Password (should not be less than 6 characters).
* E-mail (should not contain invalid addresses)

# Code: -

<html>

<head>

<title>Js Answer 2</title>

<style> h1{

margin-left: 20px;

}

body{

display: flex;

justify-content: center; align-items: flex-start; height: 100vh;

}

form{

width:300px; margin-top: 20vh;

background-color: #ccc; padding: 40px;

}

label{

display: block; margin-bottom: 5px; margin-left: 55px; font-weight: bold;

}

input{

padding: 5px;

margin-bottom: 10px; margin-left: 55px; border: 1px solid #ccc; border-radius: 3px;

}

button{

display: block; margin: auto ;

}

</style>

<script>

function validateForm(){

var name = document.getElementById('name').value;

var password = document.getElementById('password').value; var email = document.getElementById('email').value;

var nameCheck= /^[a-zA-Z]{6,}$/; var passwordCheck = /^.{6,}$/;

var emailCheck= /^[^\s@]+@[^\s@]+\.[^\s@]+$/;

if(!nameCheck.test(name)){

alert('Name should contain alphabets only and have a minimum length of 6 characters.'); return false;

}

if(!passwordCheck.test(password)){

alert("Password should have minimum length of 6 charcters."); return false;

}

if(!emailCheck.text(email)){

alert('Please enter a valid email address.'); return false;

}

return true;

}

</script>

</head>

<body>

<form onsubmit="return validateForm()">

<h1>Enter Your Details</h1>

<label for="name">Name:</label>

<input type="text" name="name" id="name" placeholder="Enter Your Name" >

<label for="password">Password:</label>

<input type="password" name="password" id="password" placeholder="Enter Your Password" >

<label for="email">Email:</label>

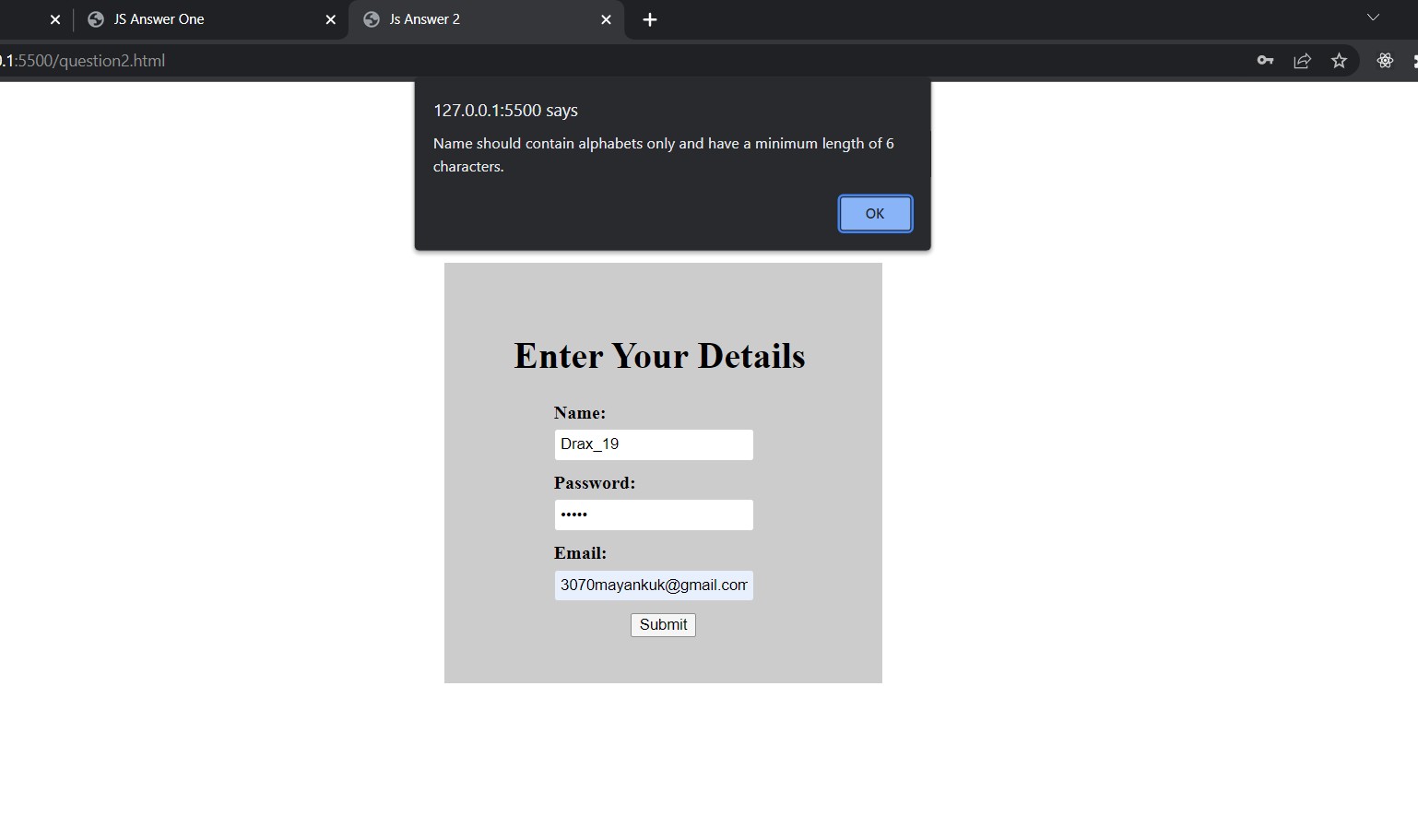
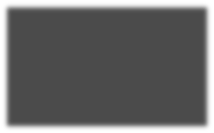
<input type="email" name="email" id="email" placeholder="Enter Your Email" >

<button type="submit">Submit</button>

</form>

</body>

</html>



Q3) Write a java script program to “Wish a user” at different hours of a day.

# Code: -

<html>

<head>

<title>Js Answer 3</title>

</head>

<body>

<h1 id="wishUser"></h1>

<script>

function getWishes(){

const currentTime = new Date().getHours(); if(currentTime >= 0 && currentTime < 12){

return 'Good Morning!';

}

else if(currentTime>=12 && currentTime < 18){ return 'Good Afternoon!';

}

else{

return 'Good Evening!';

}

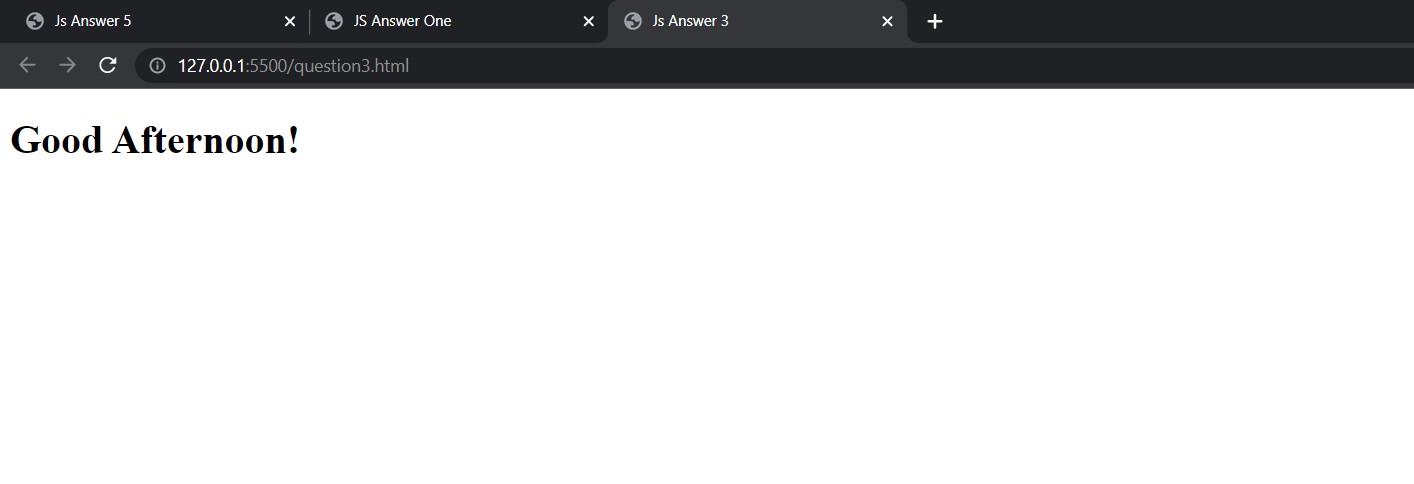
}

const wishesElement = document.getElementById('wishUser'); wishesElement.innerHTML = getWishes();

</script>

</body>

</html>



Q4) Design a web page that self modifying itself after every one minute.

# Code: -

<html >

<head>

<title>Js Answer 4 </title>

<style>

body {

font-family: Arial, Helvetica, sans-serif; text-align: center;

margin-top: 100px;

}

</style>

</head>

<body>

<h1 id="content">Hello User!</h1>

<script>

window.onload = function () { var currentIndex = 0;

setInterval(updateContent, 60000); function updateContent() {

var randomText = text[currentIndex]; currentIndex = (currentIndex+1)%text.length;

document.getElementById("content").innerHTML = randomText;

}

var text = ["How Are You", "Welcome to my page",

"This Page is created by GEHU student", "GEHU stands for Graphic Era Hill University", "It has 4 campuses in India ",

"Two in Bhimtal", "One in Haldwani", "one in Dheradun"

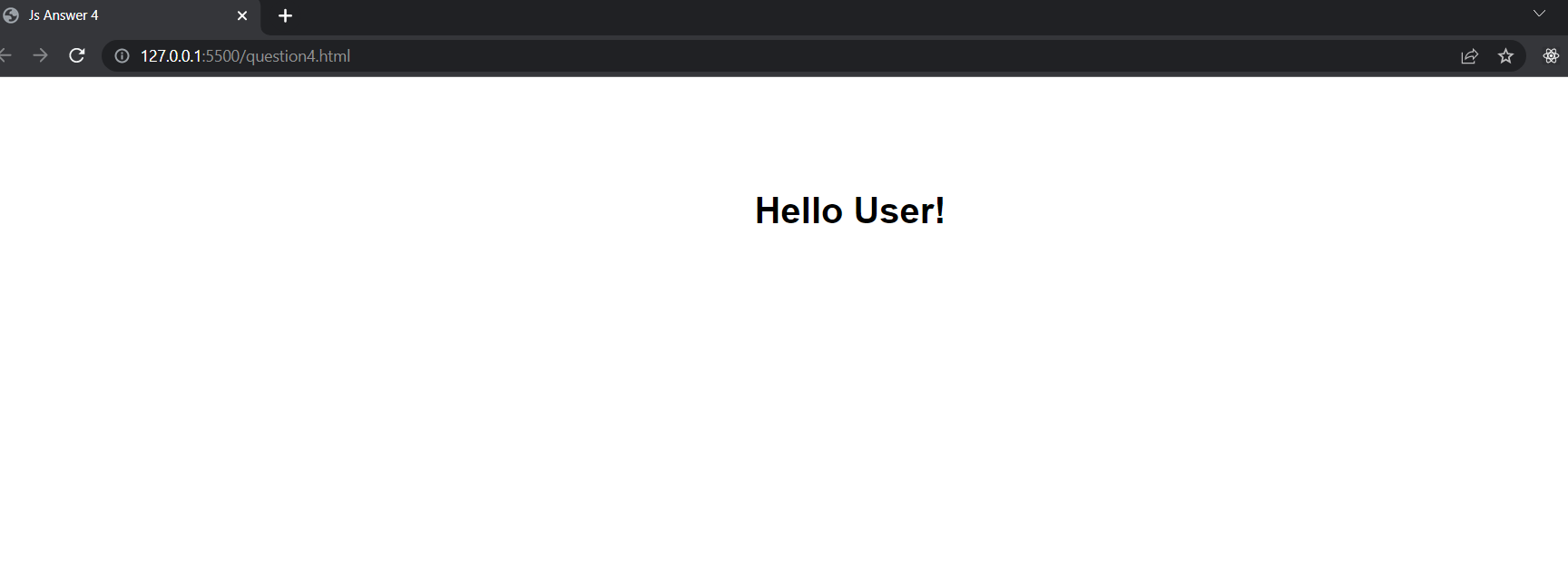
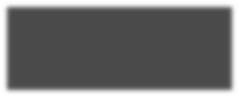
];

};

</script>

</body>

</html>



Q5) Write a code for web application, which accepts the birth date from the user in a textbox and display the day of the week in a message box in the click of a button.

# Code: -

<html >

<head>

<title>Js Answer 5</title>

<style>

body{

display: flex;

justify-content: center; align-items: center;

height: 70vh; margin: 0;

background-color:lightblue;

}

.main{

text-align: center; border: 2px solid black;

}

.main > \*{ margin: 5px;

}

</style>

</head>

<body>

<div class="main">

<h1>|---------- DOB |</h1>

<label for="date">Enter You Birth Date:</label>

<input type="date" name="date" id="Dob" required><br>

<button onclick="getWeek()">Press Me</button>

</div>

<script>

function getWeek(){

var date = document.getElementById('Dob').value; var dateObj = new Date(date);

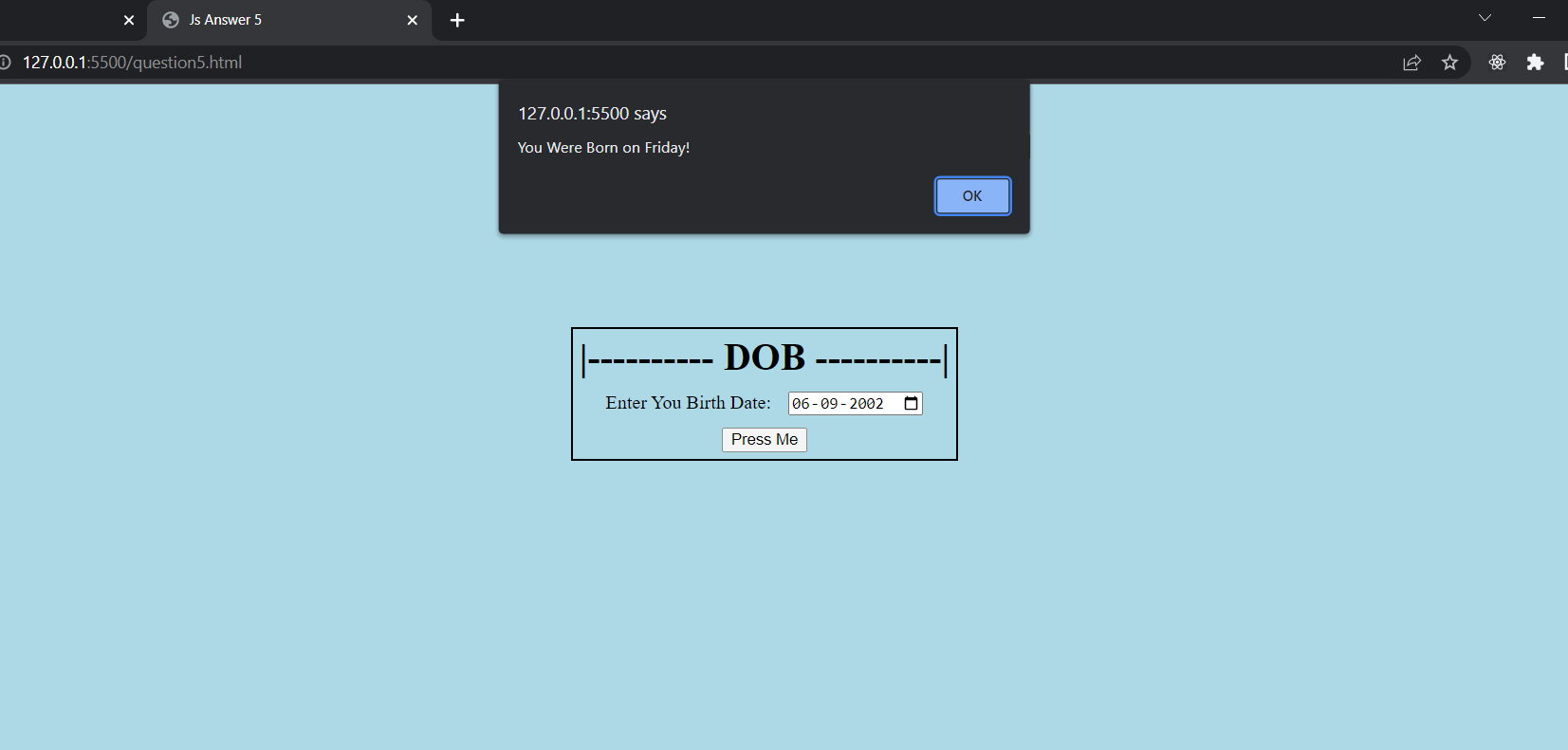
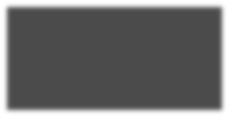
var week = dateObj.toLocaleDateString(undefined,{weekday:"long"}); alert('You Were Born on ' + week + '!');

}

</script>

</body>

</html>



Q6) Write a script that inputs a telephone number as a string in the form (555)555-555. The script should use the strings method split to extract the area code as a token and the last four digits of the phone numbers as a token. Display the area code in one test field and the seven-digit phone number in another test field.

# Code:-

<html>

<head>

<style>

.input-field {

margin-bottom: 10px;

}

</style>

</head>

<body>

<div class="input-field">

<label for="telephone">Telephone Number:</label>

<input type="text" id="telephone" />

</div>

<div class="input-field">

<label for="area-code">Area Code:</label>

<input type="text" id="area-code" readonly />

</div>

<div class="input-field">

<label for="last-digits">Last Four Digits:</label>

<input type="text" id="last-digits" readonly />

</div>

<script>

document.getElementById("telephone").addEventListener("input", function() { var telephoneNumber = this.value;

telephoneNumber = telephoneNumber.replace("(", "").replace(")", "").replace("-", ""); var areaCode = telephoneNumber.substr(0, 3);

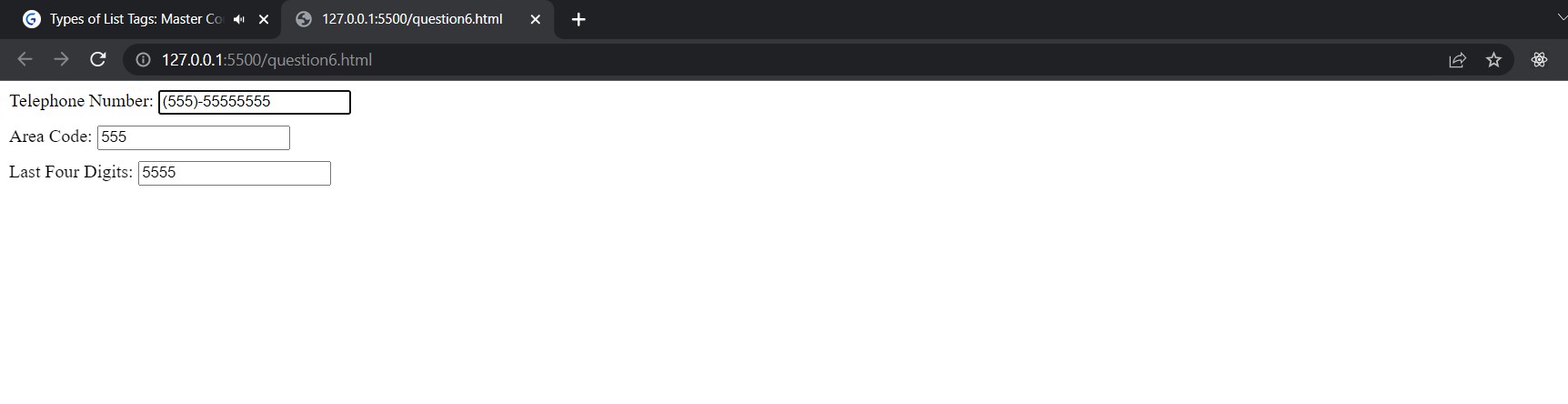
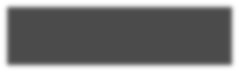
var lastFourDigits = telephoneNumber.substr(-4); document.getElementById("area-code").value = areaCode; document.getElementById("last-digits").value = lastFourDigits;

});

</script>

</body>

</html>



Q7) Create a web page that applies the invert filter to an image if the user moves the mouse over it.

# Code:-

<html>

<head>

<style>

.image-container { display: inline-block; position: relative;

}

.image-container img { max-width: 100%; height: auto;

}

</style>

</head>

<body>

<div class="image-container">

<img src="pexels-pixabay-268533.jpg" alt="Image" id="my-image" />

</div>

<script>

var image = document.getElementById("my-image"); image.addEventListener("mouseover", function() { image.style.filter = "invert(100%)";

});

image.addEventListener("mouseout", function() { image.style.filter = "none";

});

</script>

</body>

</html>

Q8)Design a web page to perform a survey a four different models of (Maruti -K10, Zen-Astelo, Wagnor, Maruti- SX4) owned by people living in four metro cities(Delhi, Mumbai, Chennai & Kolkatta). Display tabulated report like format given below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Maruti-K10 | Zen-Astelo | Wagnor | Maruti-SX4 |
| Delhi |  |  |  |  |
| Mumbai |  |  |  |  |
| Chennai |  |  |  |  |
| Kolkatta |  |  |  |  |

# Code:-

<html>

<head>

<style> table {

border-collapse: collapse;

}

table, th, td {

border: 1px solid black;

}

th, td { padding: 10px;

text-align: center;

}

</style>

</head>

<body>

<h1>Maruti Car Survey</h1>

<table>

<thead>

<tr>

<th></th>

<th>Maruti-K10</th>

<th>Zen-Astelo</th>

<th>Wagnor</th>

<th>Maruti-SX4</th>

<th>Total</th>

</tr>

</thead>

<tbody>

<tr>

<td>Delhi</td>

<td><input type="number" id="delhi-k10" min="0"></td>

<td><input type="number" id="delhi-zen" min="0"></td>

<td><input type="number" id="delhi-wagnor" min="0"></td>

<td><input type="number" id="delhi-sx4" min="0"></td>

<td id="delhi-total"></td>

</tr>

<tr>

<td>Mumbai</td>

<td><input type="number" id="mumbai-k10" min="0"></td>

<td><input type="number" id="mumbai-zen" min="0"></td>

<td><input type="number" id="mumbai-wagnor" min="0"></td>

<td><input type="number" id="mumbai-sx4" min="0"></td>

<td id="mumbai-total"></td>

</tr>

<tr>

<td>Chennai</td>

<td><input type="number" id="chennai-k10" min="0"></td>

<td><input type="number" id="chennai-zen" min="0"></td>

<td><input type="number" id="chennai-wagnor" min="0"></td>

<td><input type="number" id="chennai-sx4" min="0"></td>

<td id="chennai-total"></td>

</tr>

<tr>

<td>Kolkata</td>

<td><input type="number" id="kolkata-k10" min="0"></td>

<td><input type="number" id="kolkata-zen" min="0"></td>

<td><input type="number" id="kolkata-wagnor" min="0"></td>

<td><input type="number" id="kolkata-sx4" min="0"></td>

<td id="kolkata-total"></td>

</tr>

</tbody>

</table>

<button onclick="generateReport()">Generate Report</button>

<div id="report"></div>

<script>

function generateReport() {

var delhiK10 = parseInt(document.getElementById("delhi-k10").value); var delhiZen = parseInt(document.getElementById("delhi-zen").value);

var delhiWagnor = parseInt(document.getElementById("delhi-wagnor").value); var delhiSX4 = parseInt(document.getElementById("delhi-sx4").value);

var mumbaiK10 = parseInt(document.getElementById("mumbai-k10").value); var mumbaiZen = parseInt(document.getElementById("mumbai-zen").value);

var mumbaiWagnor = parseInt(document.getElementById("mumbai-wagnor").value); var mumbaiSX4 = parseInt(document.getElementById("mumbai-sx4").value);

var chennaiK10 = parseInt(document.getElementById("chennai-k10").value); var chennaiZen = parseInt(document.getElementById("chennai-zen").value);

var chennaiWagnor = parseInt(document.getElementById("chennai-wagnor").value); var chennaiSX4 = parseInt(document.getElementById("chennai-sx4").value);

var kolkataK10 = parseInt(document.getElementById("kolkata-k10").value); var kolkataZen = parseInt(document.getElementById("kolkata-zen").value);

var kolkataWagnor = parseInt(document.getElementById("kolkata-wagnor").value); var kolkataSX4 = parseInt(document.getElementById("kolkata-sx4").value);

var delhiTotal = delhiK10 + delhiZen + delhiWagnor + delhiSX4;

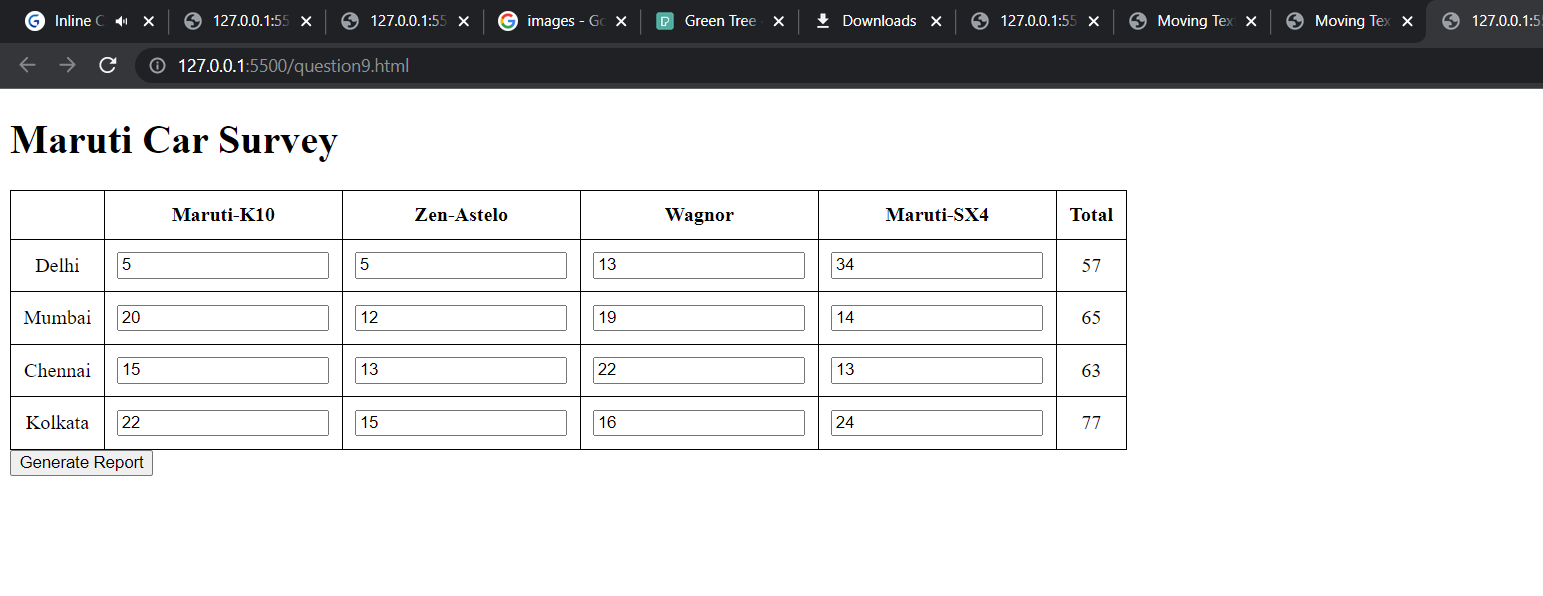
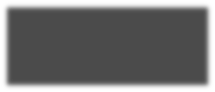
var mumbaiTotal = mumbaiK10 + mumbaiZen + mumbaiWagnor + mumbaiSX4; var chennaiTotal = chennaiK10 + chennaiZen + chennaiWagnor + chennaiSX4; var kolkataTotal = kolkataK10 + kolkataZen + kolkataWagnor + kolkataSX4; document.getElementById("delhi-total").innerHTML = delhiTotal; document.getElementById("mumbai-total").innerHTML = mumbaiTotal; document.getElementById("chennai-total").innerHTML = chennaiTotal; document.getElementById("kolkata-total").innerHTML = kolkataTotal;

}

</script>

</body>

</html>



# Unit – 4

Q1) Write an XML file which will display the Book information which includes the following:

* Title of the book
* Author Name
* ISBN number
* Publisher name
* Edition
* Price

Write a Document Type Definition (DTD) to validate the above XML file.

# Code:-

**DTD:-**

<?xml version="1.0" encoding="UTF-8"?>

<?xml-stylesheet type="text/css" href="style.css"?>

<bookstore>

<book>

<title>Book 1</title>

<author>Author 1</author>

<isbn>1234567890</isbn>

<publisher>Publisher 1</publisher>

<edition>1st</edition>

<price>19.99</price>

</book>

<book>

<title>Book 2</title>

<author>Author 2</author>

<isbn>9876543210</isbn>

<publisher>Publisher 2</publisher>

<edition>2nd</edition>

<price>29.99</price>

</book>

</bookstore>

<!ELEMENT bookstore (book\*)>

<!ELEMENT book (title, author, isbn, publisher, edition, price)>

<!ELEMENT title (#PCDATA)>

<!ELEMENT author (#PCDATA)>

<!ELEMENT isbn (#PCDATA)>

<!ELEMENT publisher (#PCDATA)>

<!ELEMENT edition (#PCDATA)>

<!ELEMENT price (#PCDATA)>

Q2) Display the above XML file as follows.

The contents should be displayed in a block. And the Author’s names information should be displayed in one color and should be capitalized and in bold. Use your own colors for the remaining information. Use CSS for the above purpose.

# Code:-

bookstore {

font-family: Arial, sans-serif;

}

book {

display: block;

border: 1px solid #ccc;

padding: 10px; margin-bottom: 10px;

}

title {

font-size: 18px; font-weight: bold; color: #333;

}

author {

font-size: 14px; margin-top: 5px; color: #ff0000;

text-transform: capitalize; font-weight: bold;

}

isbn {

font-style: italic; color: #666;

}

publisher { margin-top: 5px; color: #008000;

}

edition {

display: inline-block; margin-right: 10px; color: #0000ff;

}

price {

display: inline-block; margin-right: 10px; color: #ff8c00;

}

# Unit – 5

Q1) Create a login form having user-id and password fields. After submitting the form match the user-id and password with the existing user-id and password. If the user-id and password match a new welcome window should appear.

# Code:-

<html>

<head>

<title>Login Form</title>

</head>

<body>

<h2>Login Form</h2>

<form action="login.php" method="POST">

<label for="userid">User ID:</label>

<input type="text" id="userid" name="userid" required><br><br>

<label for="password">Password:</label>

<input type="password" id="password" name="password" required><br><br>

# PHP:-

<input type="submit" value="Login">

</form>

</body>

</html>

<?php

// Define existing user ID and password

$existingUserID = 'admin';

$existingPassword = 'password';

// Get the submitted user ID and password from the form

$submittedUserID = $\_POST['userid'];

$submittedPassword = $\_POST['password'];

// Check if the submitted user ID and password match the existing ones

if ($submittedUserID === $existingUserID && $submittedPassword === $existingPassword) {

// If the user ID and password match, display the welcome window echo '<h2>Welcome ' . $existingUserID . '!</h2>';

} else {

// If the user ID and password do not match, display an error message echo '<h2>Login Failed. Please check your credentials.</h2>';

}

?>

Q2) Create a PHP page to display all the records from PERS table that contain Departement Number(field name dno ) similar ti that of the given in the list lstdno given in the interface web browser screen.

# Code:-

<?php

// Database connection settings

$servername = "localhost";

$username = "your\_username";

$password = "your\_password";

$dbname = "your\_database\_name";

// Department numbers provided in the list

$lstdno = [1, 2, 3]; // Example list of department numbers

// Create a database connection

$conn = new mysqli($servername, $username, $password, $dbname); if ($conn->connect\_error) {

die("Connection failed: " . $conn->connect\_error);

}

// Construct the query to retrieve records with matching department numbers

$departmentNumbers = implode(",", $lstdno);

$sql = "SELECT \* FROM PERS WHERE dno IN ($departmentNumbers)";

// Execute the query

$result = $conn->query($sql);

// Check if any records were found if ($result->num\_rows > 0) {

// Display the records in a table echo "<table>

<tr>

<th>Employee ID</th>

<th>Name</th>

<th>Department Number</th>

<th>Other Fields...</th>

</tr>";

// Output data of each row

while ($row = $result->fetch\_assoc()) { echo "<tr>

<td>".$row["emp\_id"]."</td>

<td>".$row["name"]."</td>

<td>".$row["dno"]."</td>

<td>Other Field Values...</td>

</tr>";

}

echo "</table>";

} else {

echo "No records found.";

}

// Close the database connection

$conn->close();

?>

Q3) Write a PHP page to store page views count in SESSION, to increment the count on each refresh, and to show the count on web page.

# Code:-

<?php session\_start();

// Check if the page views count is already stored in the session if (isset($\_SESSION['page\_views'])) {

// Increment the page views count

$\_SESSION['page\_views']++;

} else {

// Initialize the page views count to 1

$\_SESSION['page\_views'] = 1;

}

// Display the page views count

echo "Page views: " . $\_SESSION['page\_views'];

?>

Q4) Write a PHP program to store current date-time in a COOKIE and display the “Last visited on” date-time on the web page upon reopening of the same page.

# Code:-

<?php

// Check if the cookie is already set

if (isset($\_COOKIE['last\_visited'])) {

$lastVisited = $\_COOKIE['last\_visited']; echo "Last visited on: " . $lastVisited;

}

// Set the current date and time as a cookie

$currentTime = date("Y-m-d H:i:s");

setcookie("last\_visited", $currentTime, time() + (86400 \* 30), "/"); // Cookie expires in 30 days

?>

Q5) Using PHP and MySQL, develop a program to accept book information viz. Accession number, title, authors, edition and publisher from a web page and store the information in a database and to search for a book with the title specified by the user and to display the search results with proper headings.

# Code:-

<html>

<head>

<title>Book Information</title>

</head>

<body>

<h2>Enter Book Information</h2>

<form method="POST" action="">

<label>Accession Number:</label>

<input type="text" name="accession\_number" required><br><br>

<label>Title:</label>

<input type="text" name="title" required><br><br>

<label>Authors:</label>

<input type="text" name="authors" required><br><br>

<label>Edition:</label>

<input type="text" name="edition" required><br><br>

<label>Publisher:</label>

<input type="text" name="publisher" required><br><br>

<input type="submit" name="submit" value="Submit">

</form>

<h2>Search Book by Title</h2>

<form method="GET" action="">

<label>Enter Title:</label>

<input type="text" name="search\_title" required>

<input type="submit" name="search" value="Search">

</form>

<?php

// Database connection settings

$servername = "localhost";

$username = "your\_username";

$password = "your\_password";

$dbname = "your\_database\_name";

// Create a database connection

$conn = new mysqli($servername, $username, $password, $dbname); if ($conn->connect\_error) {

die("Connection failed: " . $conn->connect\_error);

}

// Check if the form is submitted if (isset($\_POST['submit'])) {

// Get the entered book information

$accessionNumber = $\_POST['accession\_number'];

$title = $\_POST['title'];

$authors = $\_POST['authors'];

$edition = $\_POST['edition'];

$publisher = $\_POST['publisher'];

// Prepare and execute the SQL query to insert book information

$sql = "INSERT INTO books (accession\_number, title, authors, edition, publisher) VALUES ('$accessionNumber', '$title', '$authors', '$edition', '$publisher')";

if ($conn->query($sql) === true) {

echo "Book information stored successfully.";

} else {

echo "Error storing book information: " . $conn->error;

}

}

// Check if a search query is submitted if (isset($\_GET['search'])) {

// Get the search title

$searchTitle = $\_GET['search\_title'];

// Prepare and execute the SQL query to search for books

$sql = "SELECT \* FROM books WHERE title LIKE '%$searchTitle%'";

$result = $conn->query($sql);

// Check if any books are found if ($result->num\_rows > 0) {

echo "<h2>Search Results</h2>"; echo "<table>

<tr>

<th>Accession Number</th>

<th>Title</th>

<th>Authors</th>

<th>Edition</th>

<th>Publisher</th>

</tr>";

// Output data of each book

while ($row = $result->fetch\_assoc()) { echo "<tr>

<td>".$row["accession\_number"]."</td>

<td>".$row["title"]."</td>

<td>".$row["authors"]."</td>

<td>".$row["edition"]."</td>

<td>".$row["publisher"]."</td>

</tr>";

}

echo "</table>";

} else {

echo "No books found.";

}

}

// Close the database connection

$conn->close();

?>

</body>

</html>