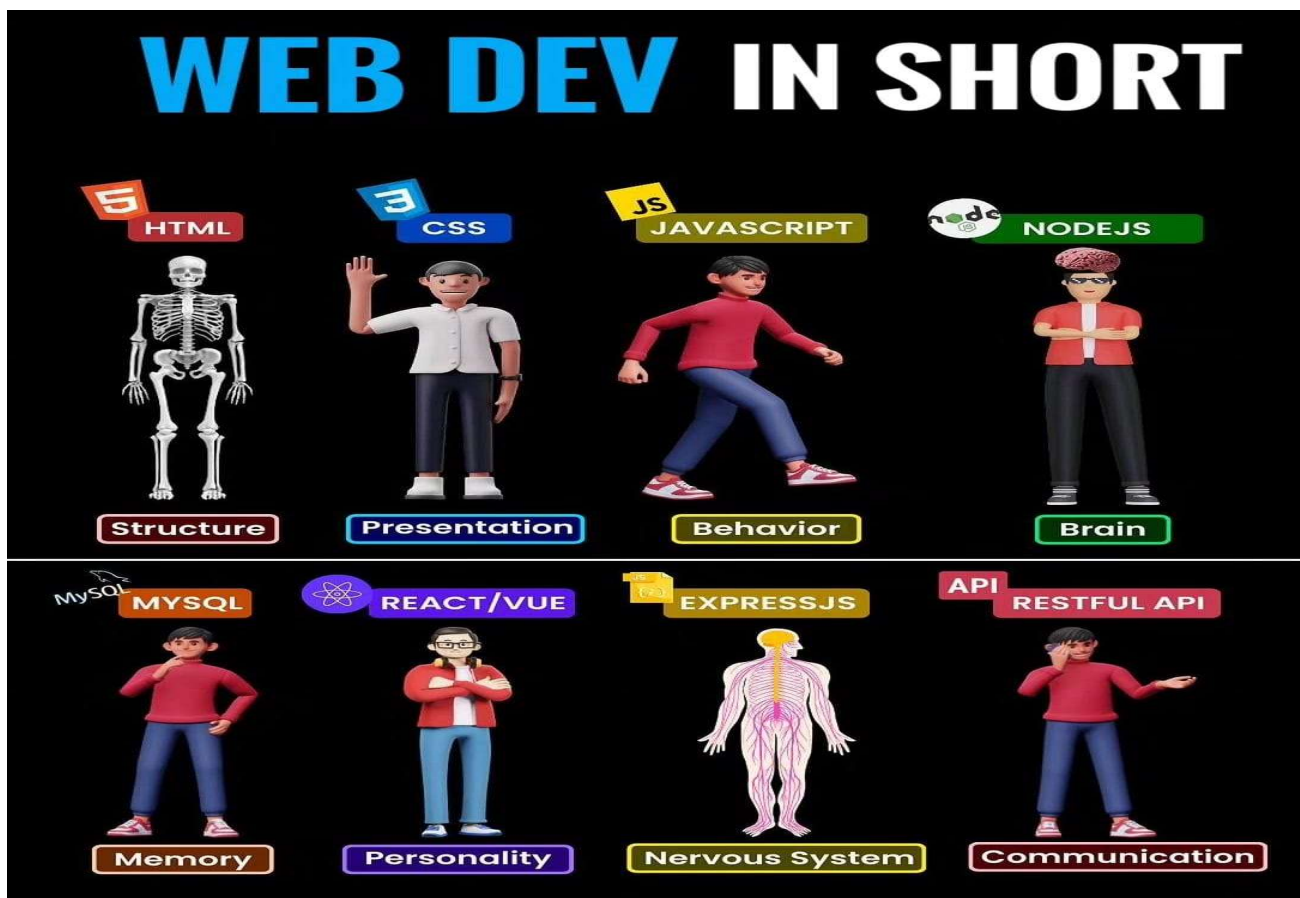
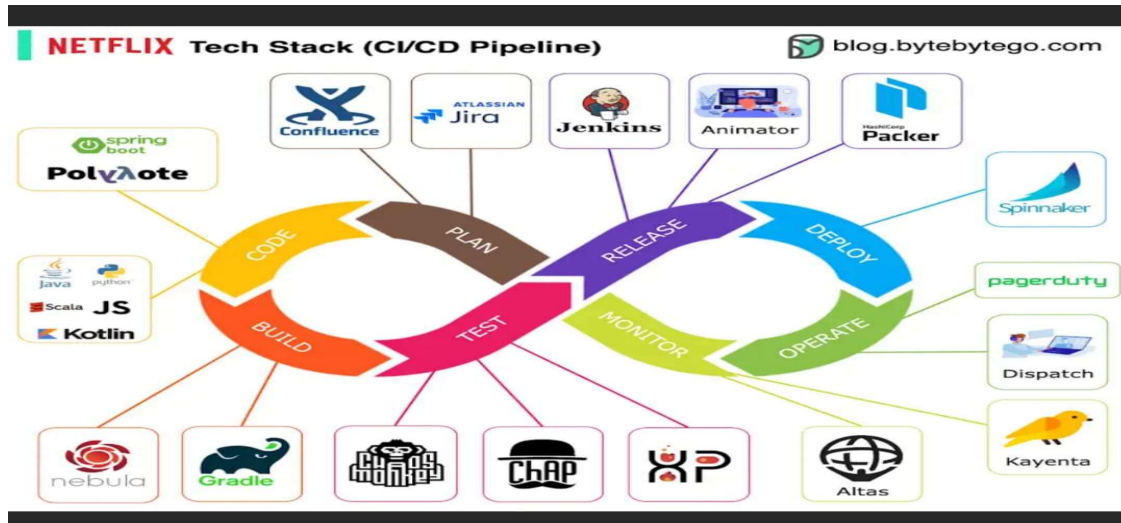


# MEAN STACK TECHNOLOGIES LAB



FACULTY NAME:E.V.SANDEEP SIR

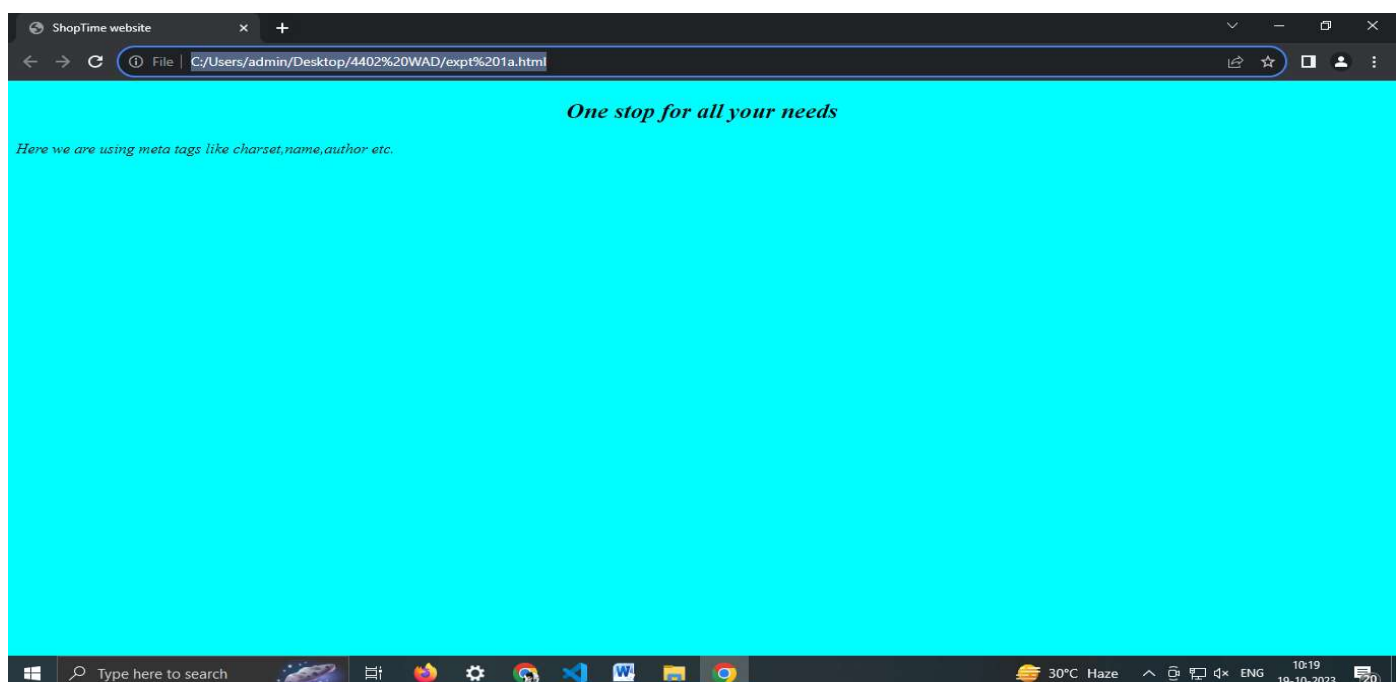
SIGNATURE:

**Experiment No: 1****1A) Course Name:** HTML5 – The language**Module Name:** Case-insensitivity, Platform Independency, DOCTYPE Declaration, Types of Elements, HTML Elements -Attributes, Metadata Element.

Include the Metadata element in Homepage.html for providing description as “IEKart’s is an online shopping website that sells goods in retail.” This company deals with various categories like Electronics, Clothing, and Accessories etc.

**Program:**

```
<!DOCTYPE html>
<html>
  <head>
    <title>ShopTime website</title>
    <meta charset="UTF-8">
    <meta name="description" content="ShopTime is an online shopping website that sells
goods in
  retail. This company deals with various categories like Electronics, Clothing,
Accessories etc">
    <meta name="keywords" content="clothing,footwear,shopping">
    <meta name="author" content="Myself">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
  </head>
  <body bgcolor="cyan">
    <h1 align="center"><i><ShopTime></i></h1>
    <h2 align="center"><i>One stop for all your needs</i></h2>
    <p>Here we are using meta tags like charset,name,author etc.</p>
  </body>
</html>
```

**OUTPUT:**

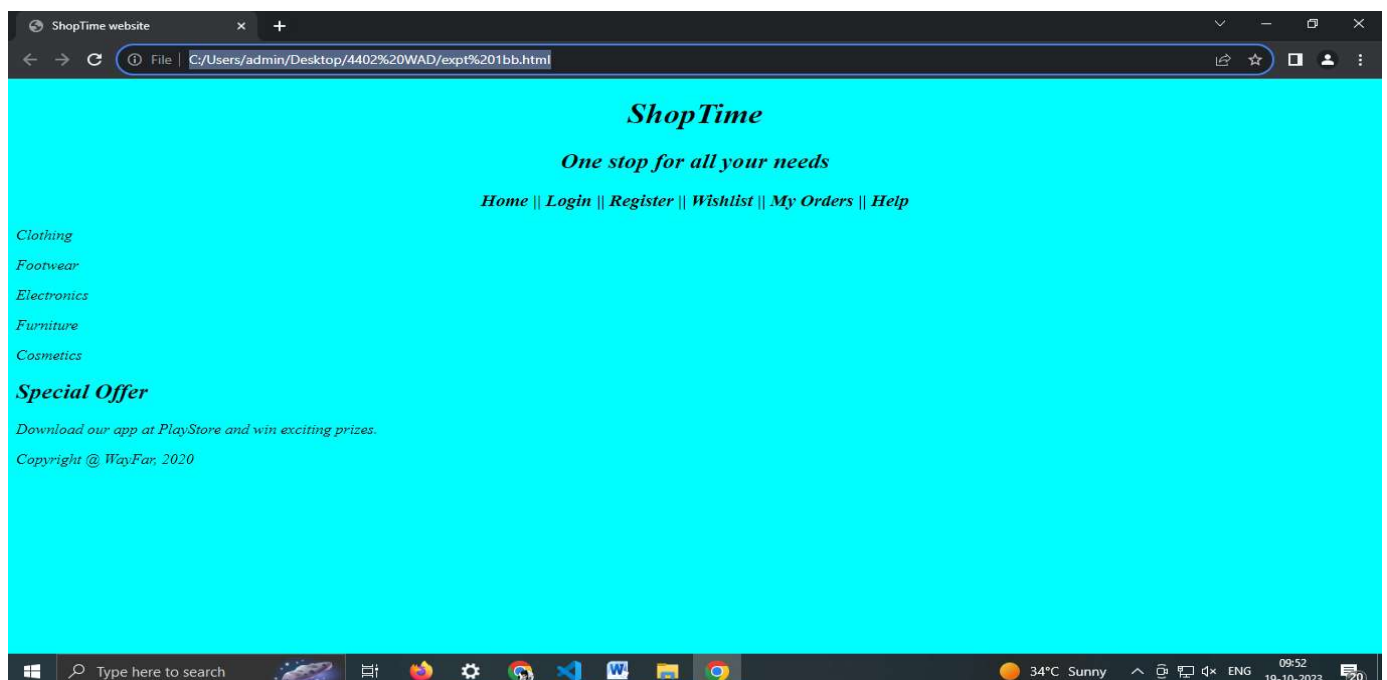
**1B) Course Name: HTML5 – The language**

Module Name: Sectioning Elements

Enhance the Homepage.html of IEKart's Shopping Application by adding appropriate sectioning element.

**Program:**

```
<!DOCTYPE HTML>
<html>
  <head><title>ShopTime website</title></head>
  <body bgcolor="cyan">
    <h1 align="center"><i>ShopTime</i></h1>
    <h2 align="center"><i>One stop for all your needs</i></h2>
    <nav align="center"><h3>Home || Login || Register || Wishlist || My Orders ||
Help</h3></nav>
    <main>
      <section><p>Clothing</p></section>
      <section><p>Footwear</p></section>
      <section><p>Electronics</p></section>
      <section><p>Furniture</p></section>
      <section><p>Cosmetics</p></section>
    </main>
    <article><h1>Special Offer</h1>
    <aside><p>Download our app at PlayStore and win exciting prizes. </p></aside>
    </article>
  </body>
  <footer>Copyright @ WayFar, 2020</footer>
</html>
```

**Output:**

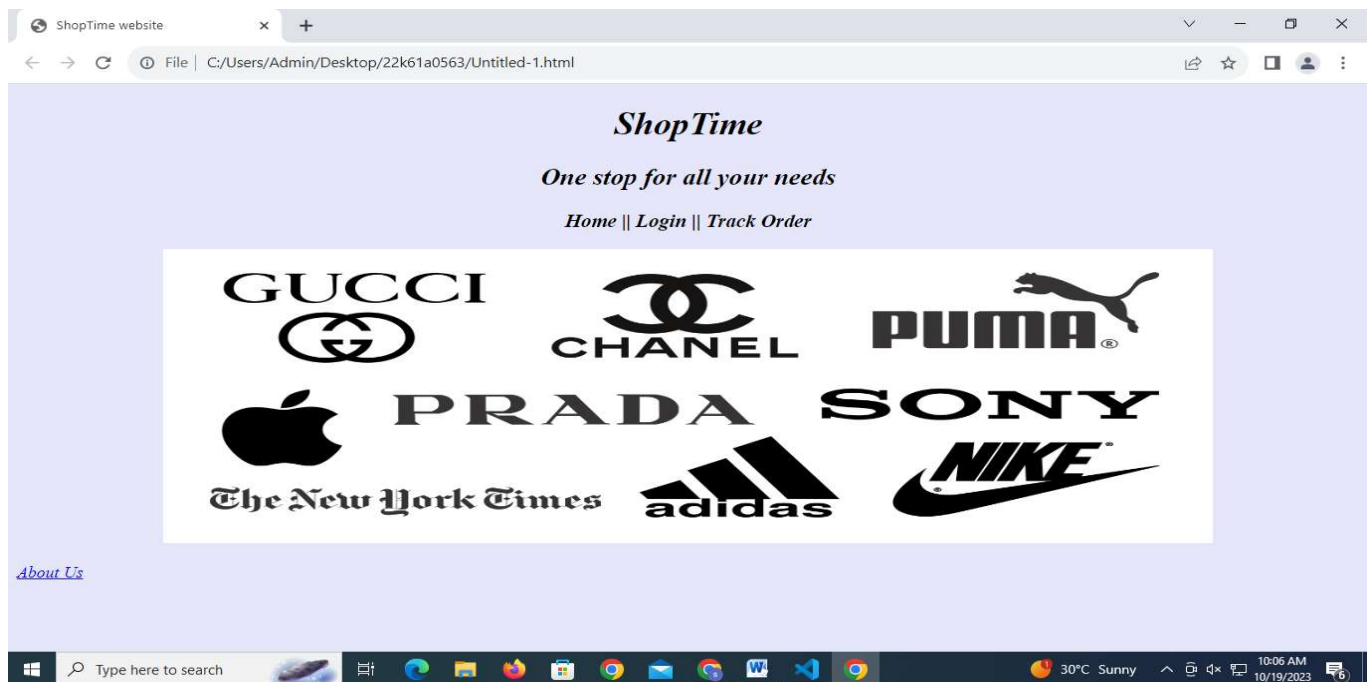
**1C) Course Name: HTML5 – The Language**

Module Name: Paragraph Element, Division and Span Elements, List Elements

Make use of appropriate grouping elements such as list items to “About Us” page of IEKart’s Shopping Application.

**Program:**

```
<!DOCTYPE HTML>
<html>
  <head><title>ShopTime website</title></head>
  <body bgcolor="lavender">
    <h1 align="center"><i>ShopTime</i></h1>
    <h2 align="center"><i>One stop for all your needs</i></h2>
    <nav align="center"><h3>Home || Login || Track Order </h3></nav>
    <center>
      <p></p>
    </center>
  </body>
  <footer><a href="aboutus.html">About Us</a></footer>
</html>
```

**Output:**

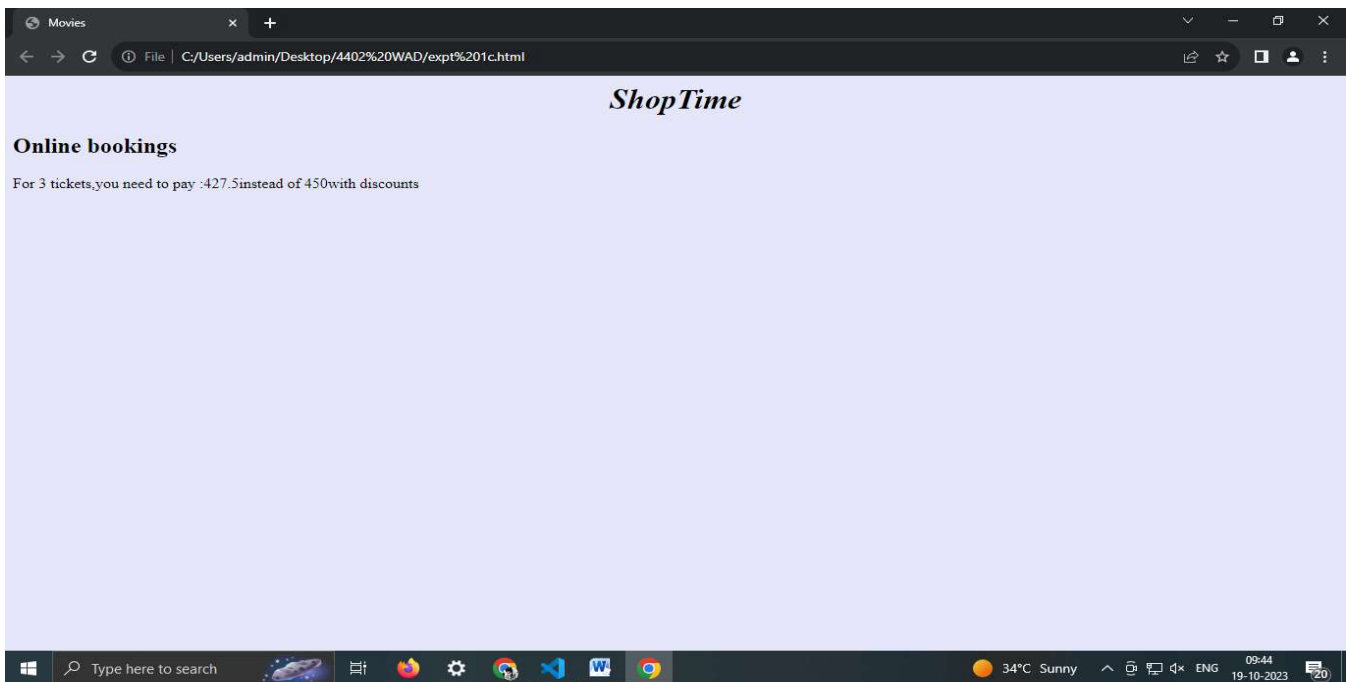
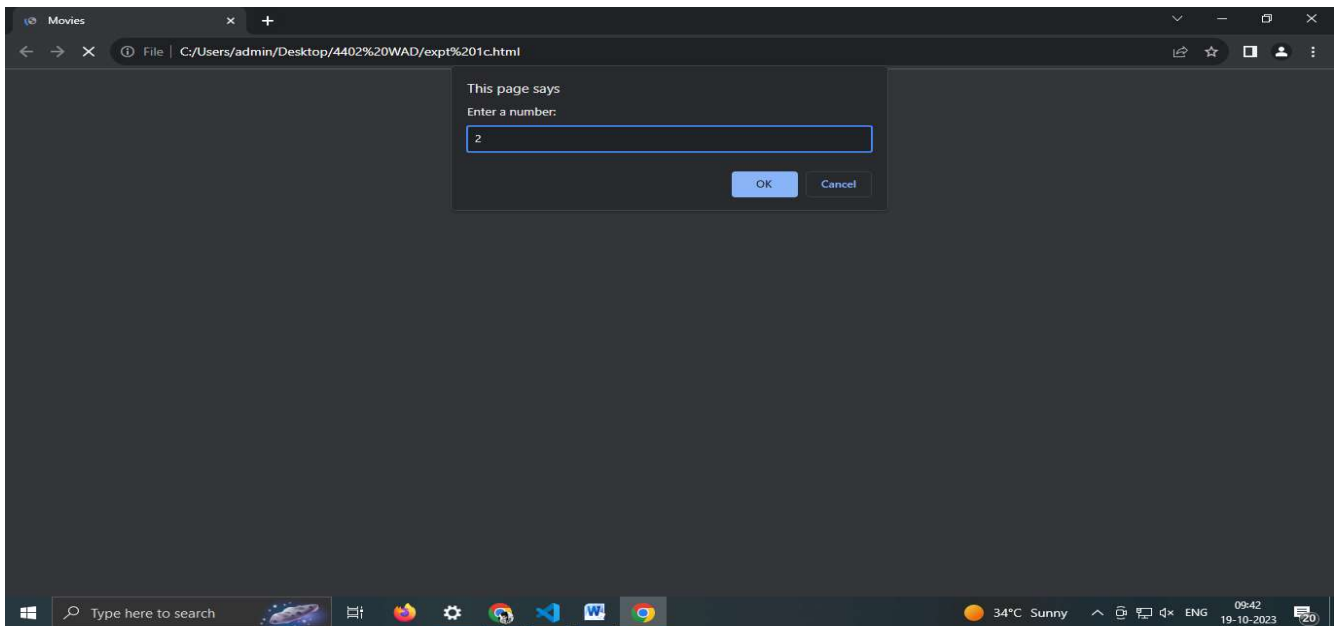
**1D) Course Name: HTML5- The Language**

Module Name: JavaScript Input, write methods

Displaying the cost of booking tickets using JavaScript.

**Program:**

```
<!DOCTYPE html>
<html>
  <head><title>Movies</title></head>
  <body bgcolor="lavender">
    <h1 align="center"><i>ShopTime</i></h1>
    <h2>Online bookings</h2>
    <script bgcolor="lavender">
      n=window.prompt("Enter a number:");
      if(n<=2)
      {
        tcost=n*150
        document.write("For n tickets,you need to pay :",tcost);
      }
      elseif(n>=6)
      {
        document.write("Bookings are not Allowed");
      }
      else
      {
        if (n==3){
          t1=150-(150*(3/100));
          t2=150-(150*(5/100));
          t3=150-(150*(7/100));
          tcost=t1+t2+t3;
          document.write("For 3 tickets,you need to pay :",tcost,"instead of ",(150*3),"with discounts"); }
        elseif (n==4){
          t1=150-(150*(3/100));
          t2=150-(150*(5/100));
          t3=150-(150*(7/100));
          t4=150-(150*(9/100));
          tcost=t1+t2+t3+t4;
          document.write("For 4 tickets,you need to pay :",tcost,"instead of ",(150*4),"with discounts");
        }
        else{
          t1=150-(150*(3/100));
          t2=150-(150*(5/100));
          t3=150-(150*(7/100));
          t4=150-(150*(9/100));
          t5=150-(150*(11/100));
          tcost=t1+t2+t3+t4+t5;
          document.write("For 5 tickets,you need to pay :",tcost,"instead of ",(150*5),"with discounts");
        }
      }
    </script>
  </body>
</html>
```

**OUTPUT:**

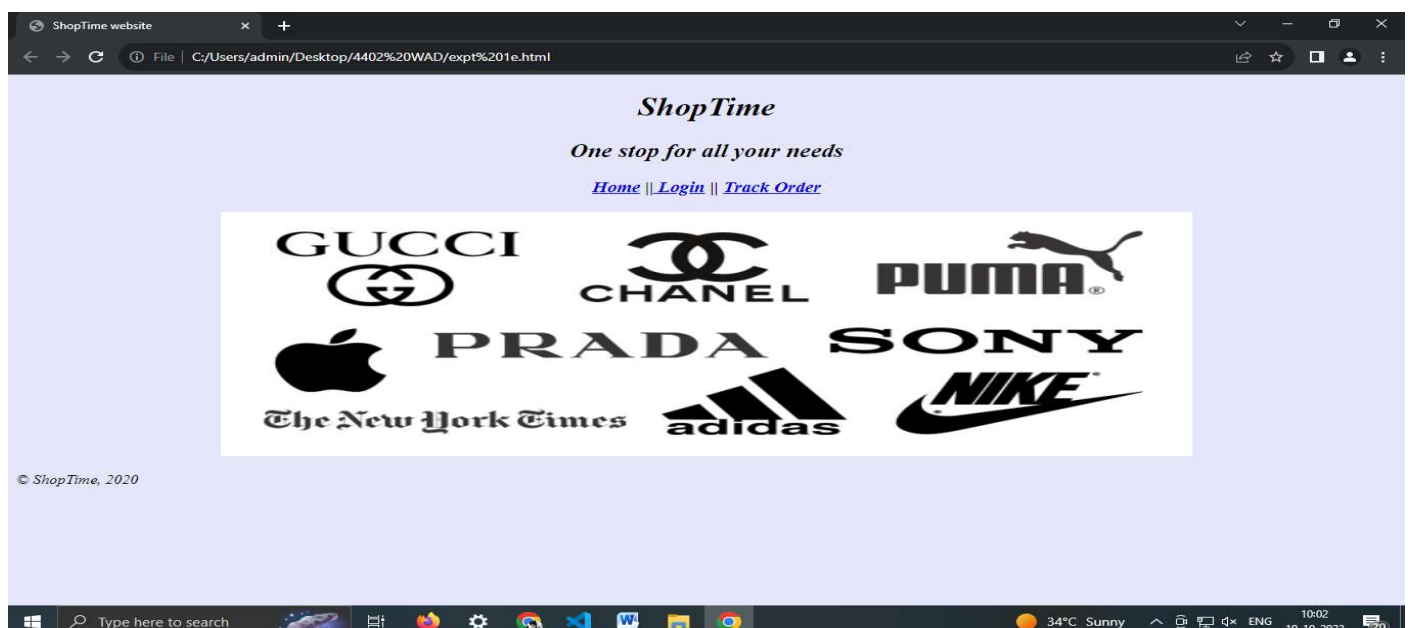
**1E) Course Name: HTML5 – The Language**

Module Name: Link Element

Link “Login”, “SignUp” and “Track order” to “Login.html”, “SignUp.html” and “Track.html” page respectively. Bookmark each category to its details of IEKart’s Shopping application.

**Program:**

```
<!DOCTYPE HTML>
<html>
  <head>
    <title>ShopTime website</title>
    <meta charset="UTF-8">
    <meta name="description" content="ShopTime is an online shopping website that sells goods in retail.
This company deals with various categories like Electronics, Clothing, Accessories etc">
    <meta name="keywords" content="clothing,footwear,shopping">
    <meta name="author" content="Myself">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
  </head>
  <body bgcolor="lavender">
    h1 align="center"><i>ShopTime</i></h1>
    <h2 align="center"><i>One stop for all your needs</i></h2>
    <nav align="center"><h3>
      <a href="home.html">Home</a> || <a href="login.html"> Login</a> || <a href="trackorder.html">Track
Order</a></h3>
    </nav>
    <center><p>
      
    </center>
  </body>
  <footer>&copy; ShopTime, 2020</footer>
</html>
```

**Output:**



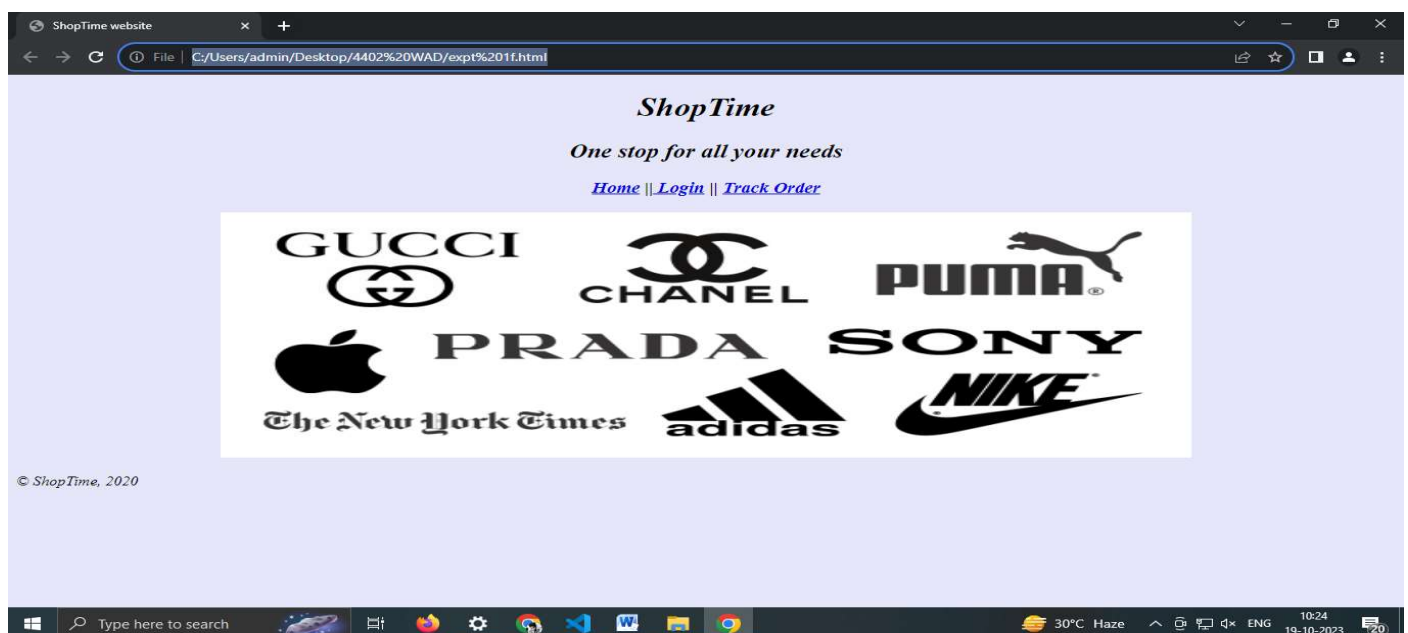
**1F) Course Name: HTML5 – The Language**

Module Name: Linking pages using anchor tag

Link “Login”, “Signup” and “Track order” to “Login.html”, “SignUp.html” and “Track.html” page respectively. Bookmark each category to its details of IEKart’s Shopping application.

**Program:**

```
<!DOCTYPE HTML>
<html>
<head>
  <title>ShopTime website</title>
  <meta charset="UTF-8">
  <meta name="description" content="ShopTime is an online shopping website that sells goods in retail.
This company deals with various categories like Electronics, Clothing, Accessories etc">
  <meta name="keywords" content="clothing,footwear,shopping">
  <meta name="author" content="Myself">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body bgcolor="lavender">
  <h1 align="center"><i>ShopTime</i></h1>
  <h2 align="center"><i>One stop for all your needs</i></h2>
  <nav align="center"><h3>
    <a href="home.html">Home</a> || <a href="login.html">Login</a> || <a
href="trackorder.html">Track Order</a></h3></nav>
  <center>
    <p></p>
  </center>
</body>
<footer>&copy; ShopTime, 2020</footer>
</html>
```

**OUTPUT:**



## Experiment No: 2

2A) Course Name: HTML5 – The Language

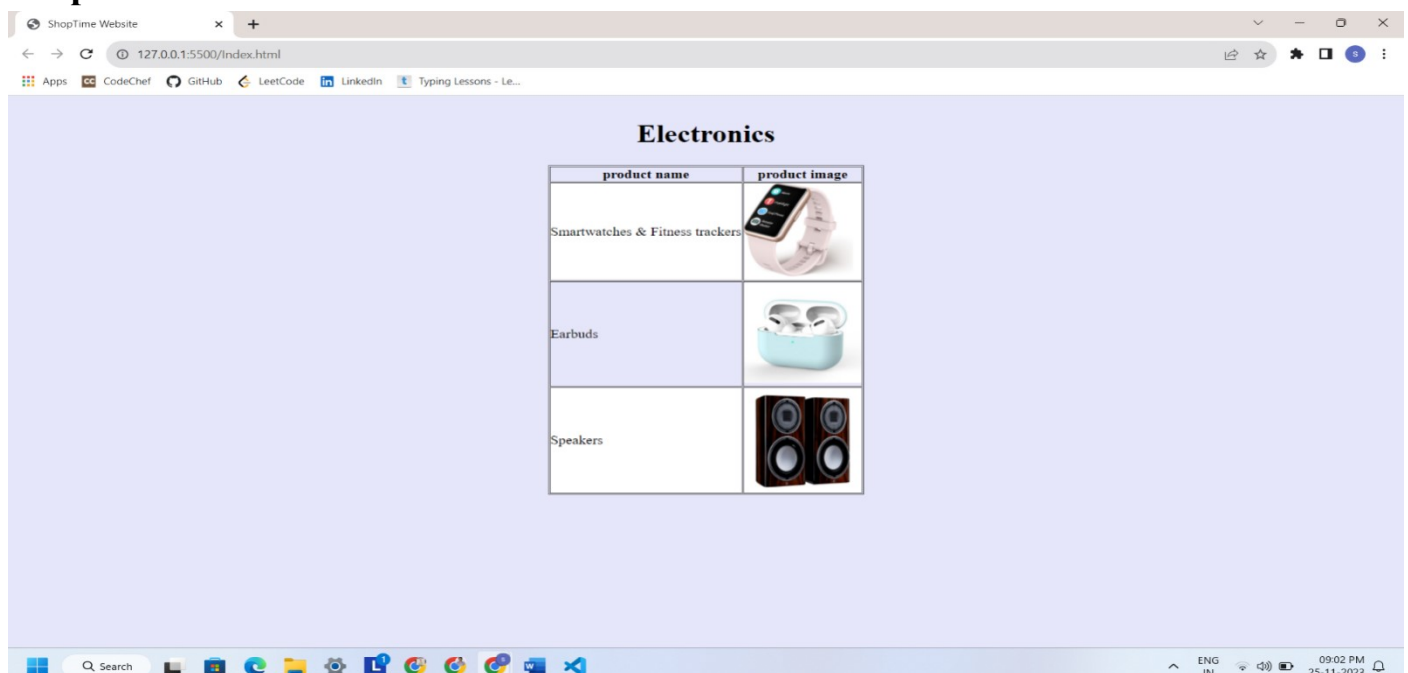
Module Name: Creating Table Elements, Table Elements: Colspan/Rowspan attributes, border, cellspacing, cellpadding attributes.

Enhance the details page of IEKart's Shopping application by adding a table element to display the available mobile/any inventories.

### Program:

```
<!DOCTYPE HTML>
<html>
  <head>
    <title>ShopTime Website</title>
  </head>
  <body bgcolor="lavender">
    <table cellspacing="1" cellpadding="0" border="1" align="center">
      <caption><h1>Electronics</h1></caption>
      <tr>
        <th>product name</th>
        <th>product image</th>
      </tr>
      <tr bgcolor="white">
        <td>Smartwatches & Fitness trackers</td><td></td></tr>
        <td>Earbuds</td><td></td></tr>
        <tr bgcolor="white">
        <td>Speakers</td><td></td></tr>
      </table>
    </body>
  </html>
```

### Output:



**2B)Course Name: HTML5 -The Language**

Module Name: Creating Table Elements, Table Elements : Colspan / Rowspan Attributes, border, cellspacing, cellpadding attributes

Enhance the details page of IEKart's Shopping application by adding a table element to display the available mobile/any inventories.

**Program:**

```
<!DOCTYPE html>
<html>
  <body bgcolor="lavender">
    <form align="center">
      <table align=center>
        <caption><h1>Sign Up</h1></caption>
        <tr><td><label>First Name:</label></td><td><input type="text"></td><br>
        <tr><td><label>Email:</label></td><td><input type="email"><br>
        <tr><td><label>Date of birth:</label></td><td><input type="date"></td>
        <tr><td><label>Gender: </label><td><input type="radio" name="gender" value="Male"> Male <input
type="radio" name="gender" value ="Female"> Female</td><br>
        <tr><td><label>Mobile:</label></td><td><input type="number"><br>
        <tr><td><label>Username:</label></td><td><input type="text"><br>
        <tr><td><label>Password:</label></td><td><input type="password"><br>
        <tr><td><label>Confirm Password:</label></td><td><input type="password"><br>
        <tr rowspan="3"><td><label>Address :<br></label></td><td><textarea
rows="3"cols="30"></td></tr><br><br>
      </table>
      <br><button type="submit">Signup</button>
    </form>
  </body>
</html>
```

**OUTPUT:**

The screenshot shows a web browser window with the title 'expt 2b.html'. The address bar shows the file path 'C:/Users/admin/Desktop/KGR/JAVA/expt%202b.html'. The main content area has a lavender background and a 'Sign Up' heading. Below the heading is a form with the following fields and controls:

- First Name: Text input field
- Email: Text input field
- Date of birth: Date picker (dd-mm-yyyy)
- Gender: Radio buttons for Male and Female
- Mobile: Text input field
- Username: Text input field
- Password: Password input field
- Confirm Password: Password input field
- Address : Textarea (3 rows, 30 columns)
- Signup: Submit button

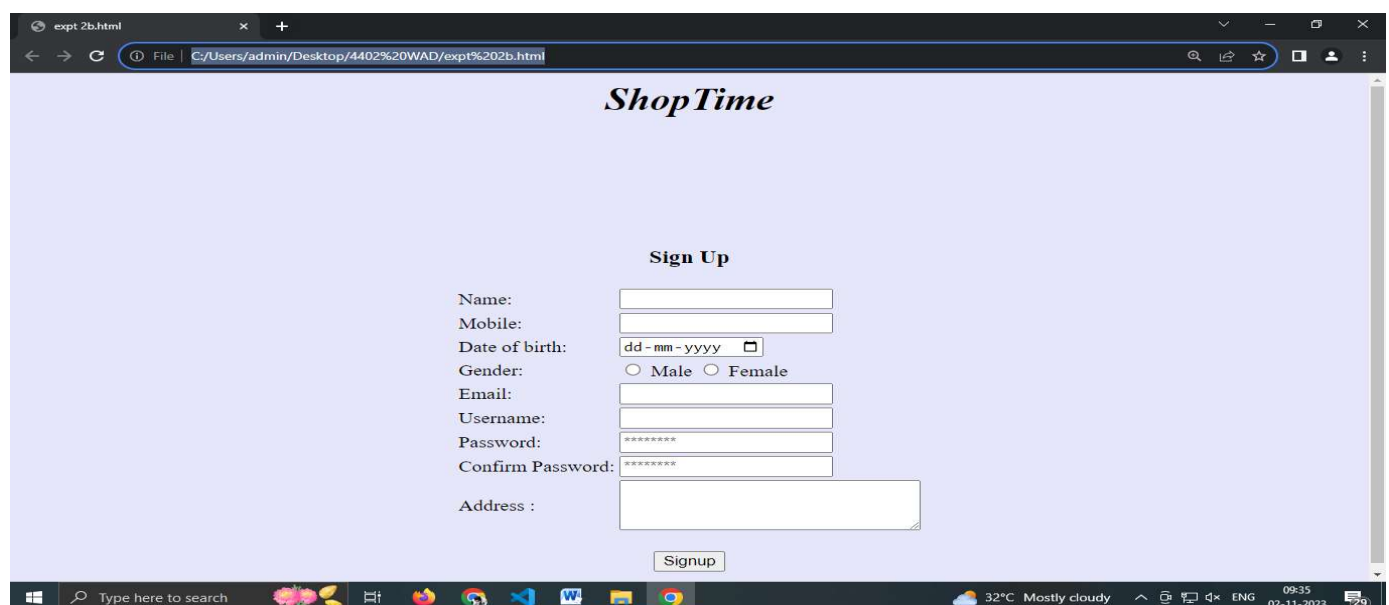
The Windows taskbar at the bottom shows the system clock as 09:38 on 02-11-2023, with a weather forecast of 32°C Mostly cloudy.

**2C)Course Name: HTML5 – The Language****Module Name: Input Elements -Attributes**

Enhance Signup page functionality of IEKart's Shopping application by adding attributes to input elements.

**Program:**

```
<html>
<body bgcolor="lavender">
<form align="center">
<table align="center">
<h1 align="center"><i>ShopTime</i></h1>
<caption><h3>Sign Up</h3></caption>
<tr><td><label>Name:</label></td><td><input type="text"></td><br>
<tr><td><label>Mobile:</label></td><td><input type="number" autocomplete="on"></td><br>
<tr><td><label>Date of birth:</label></td><td><input type="date"></td>
<tr><td><label>Gender: </label><td><input type="radio" name="gender" value="Male"> Male <input
type="radio" name="gender" value="Female"> Female</td><br>
<tr><td><label>Email:</label></td><td><input type="email"><br>
<tr><td><label>Username:</label></td><td><input type="text" pattern="[A-Za-z]+" maxlength="20"
minlength="9"><br>
<tr><td><label>Password:</label></td><td><input type="password" placeholder="*****"><br>
<tr><td><label>Confirm Password:</label></td><td><input
type="password"placeholder="*****"><br>
<tr rowspan="3"><td><label>Address :<br></label></td><td><textarea
rows="3"cols="30"spellcheck="true"></textarea></td></tr><br><br>
</table>
<br><button type="submit">Signup</button>
</form>
</body>
</html>
```

**OUTPUT:**

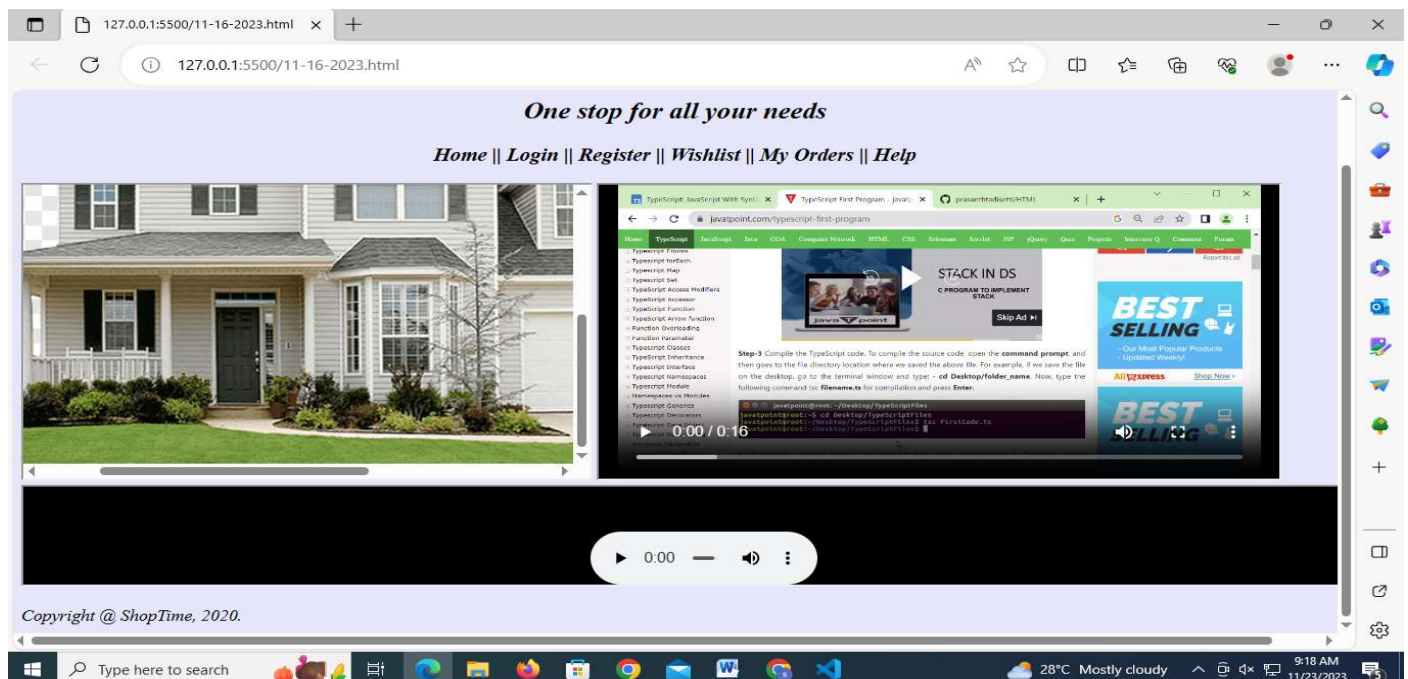
**2D) Course Name: HTML5 – The Language**

Module Name: Media,Iframe

Add media content in a frame using audio, video, iframe elements to the Home page of IEKart's Shopping application.

**Program:**

```
<!DOCTYPE html>
<html>
  <head><title>Exp-2C</title></head>
  <body bgcolor="lavender">
    <h1 align="center"><i>ShopTime</i></h1>
    <h2 align="center"><i>One stop for all your needs</i></h2>
    <header>
      <nav align="center"><h3>Home || Login || Register || Wishlist || My Orders || Help</h3>
    </nav>
    </header>
    <p>
      <iframe src="homeimage.png" name="iframe_1" height="300px" width="500px" title="Iframe
Example"></iframe>
      <iframe src="vedio.mp4" name="iframe_2" height="300" width="600" title="Iframe
Example"></iframe>
      <iframe src="Ringtone Ringtone.mp3" name="iframe_3" height="100" width="1200" title="Iframe
Example"></iframe></p>
    </body>
    <footer>
      Copyright @ ShopTime, 2020.
    </footer>
  </html>
```

**OUTPUT:**

**Experiment No: 3****3A) Course Name: HTML5 – The Language**

Module Name: Using var and let keywords in Javascript

Using const, let, var keywords in Javascript.

**Program:**

```
<html>
<body>
<h2>Area of a circle with var and let</h2>
<script>
  var rad=10;
  const pi=3.14;
  area=pi*rad*rad;
  document.write("Area of circle using var="+area+"<br>");
  var rad=14;
  area=pi*rad*rad;
  document.write("Area of circle after re-assigning var==" +area+"<br>");
  let radius=10;
  area=pi*radius*radius;
  document.write("Area of circle using let="+area+"<br>");
</script>
</body>
</html>
```

**OUTPUT:**

## Area of a circle with var and let

Area of circle using var=314

Area of circle after re-assigning var==615.44

Area of circle using let=314



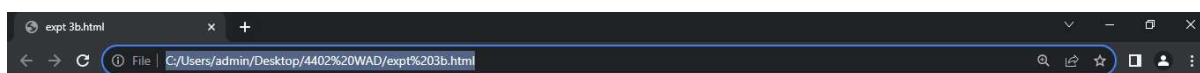
**3B) Course Name: HTML5 – The Language**

Module Name: JavaScript Literals and Templates

Using Literals and templates of JavaScript.

**Program:**

```
<!DOCTYPE html>
<html>
<body>
<h2>JavaScript Template Literals</h2>
<p id="demo"></p>
<p id="demo1"></p>
<script>
  let MovieName = "Transformers";
  let Starring = "Meghan Fox";
  let Language = "English";
  var Rating = "7.9";
  let Movie = "San Andreas";
  let Cast = "Dwayne Johnson";
  let Lang = "English";
  var Ratings = "8.5";
  let text = `The movie "${MovieName}" starring ${Starring} originally in ${Language} has rating of
  ${Rating}`;
  document.getElementById("demo").innerHTML = text;
  let text1 = `The movie "${Movie}" starring ${Cast} originally in ${Lang} has rating of ${Ratings}`;
  document.getElementById("demo1").innerHTML = text1;
</script>
</body>
</html>
```

**OUTPUT:****JavaScript Template Literals**

The movie "Transformers" starring Meghan Fox originally in English has rating of 7.9

The movie "San Andreas" starring Dwayne Johnson originally in English has rating of 8.5



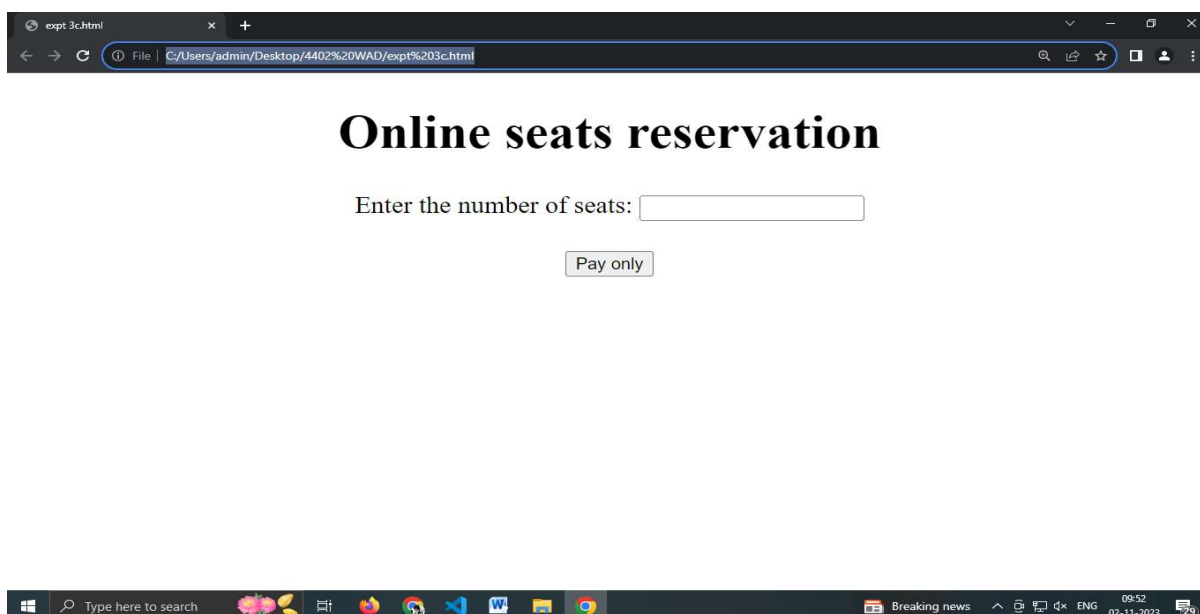
**3C) Course Name: HTML5 -The Language**

Module Name: Functions in JavaScript

Using functions in JavaScript for code reusability.

**Program :**

```
<!DOCTYPE html>
<html>
<head>
</head>
<body style = "text-align: center; font-size: 20px;">
  <h1> Online seats reservation </h1>
  Enter the number of seats: <input id = "number">
  <br><br>
  <button onclick = "m()">Pay only</button>
  <p id = "res"></p>
  <script>
function ticket(num)
{
  actual=num*150;
  discount=(actual/10); afterdisc=actual-discount; return afterdisc
}
function m()
{
  var num = document.getElementById("number").value;
  var f = ticket(num);
  document.getElementById("res").innerHTML="The total price is " + num + " is: " + f ;
}
</script>
</body>
</html>
```

**OUTPUT:**



**3D) Course Name: HTML5 – The Language**

Module Name: Input Elements in JavaScript

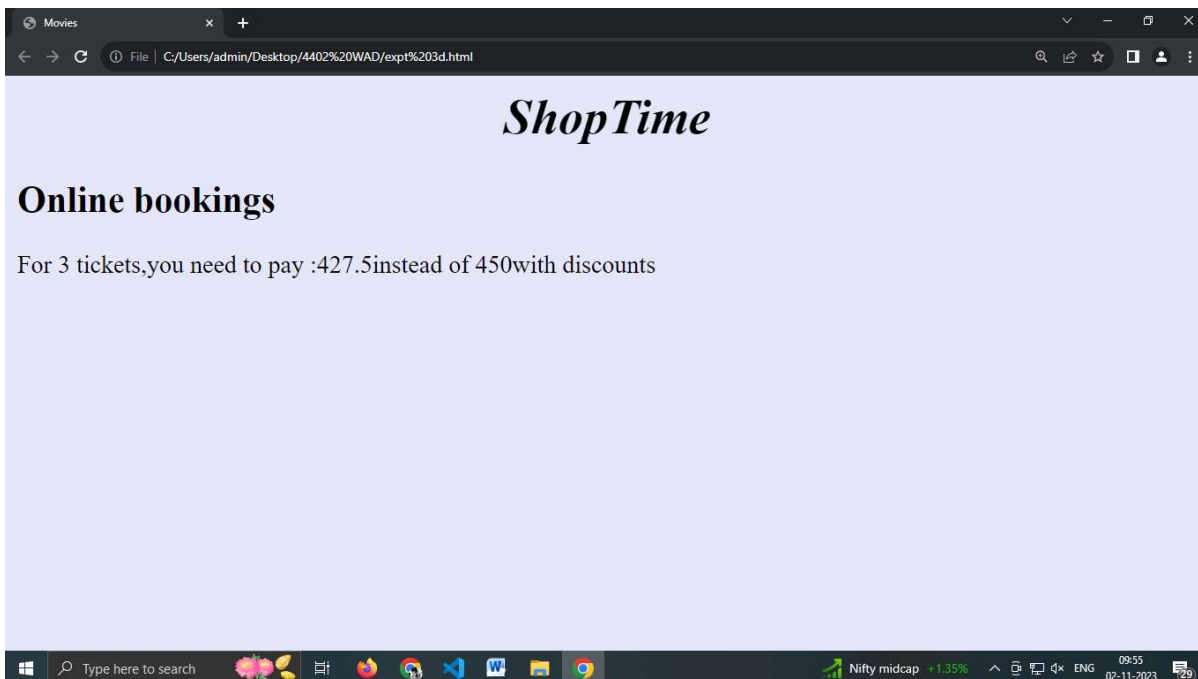
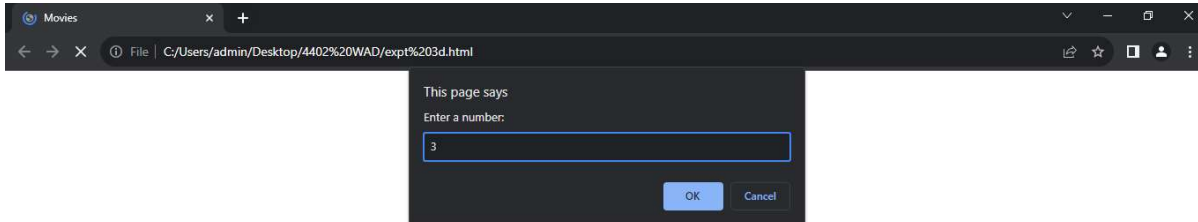
Taking input using JavaScript and calculating price of tickets.

**Program:**

```
<html>
<head>
<title>Movies</title>
</head>
<body bgcolor="lavender">
<h1 align="center"><i>ShopTime</i></h1>
<h2>Online bookings</h2>
<script bgcolor="lavender">
n=window.prompt("Enter a number:");
if(n<=2)
{
    tcost=n*150
    document.write("For n tickets,you need to pay :",tcost);
}
elseif(n>=6)
{
    document.write("Bookings are not Allowed");
}
else
{
    if (n==3)
    {
        t1=150-(150*(3/100));
        t2=150-(150*(5/100));
        t3=150-(150*(7/100));
        tcost=t1+t2+t3;
        document.write("For 3 tickets, you need to pay :",tcost,"instead of ",(150*3),"with discounts");
    }
    elseif (n==4)
    {
        t1=150-(150*(3/100));
        t2=150-(150*(5/100));
        t3=150-(150*(7/100));
        t4=150-(150*(9/100));
        tcost=t1+t2+t3+t4;
        document.write("For 4 tickets,you need to pay :",tcost,"instead of ",(150*4),"with discounts");
    }
    else
    {
        t1=150-(150*(3/100));
        t2=150-(150*(5/100));
        t3=150-(150*(7/100));
        t4=150-(150*(9/100));
        t5=150-(150*(11/100));
        tcost=t1+t2+t3+t4+t5;
    }
}
```

```
document.write("For 5 tickets, you need to pay :",tcost,"instead of ",(150*5),"with discounts");
}
}
</script>
</body>
</html>
```

## OUTPUT:



**Experiment No: 4****4A) Course Name:** HTML5 – The Language**Module Name:** Loops and Conditional statements in JavaScript

Enhancing the IEKat's website with the help of JavaScript to calculate prices of tickets.

**Program:**

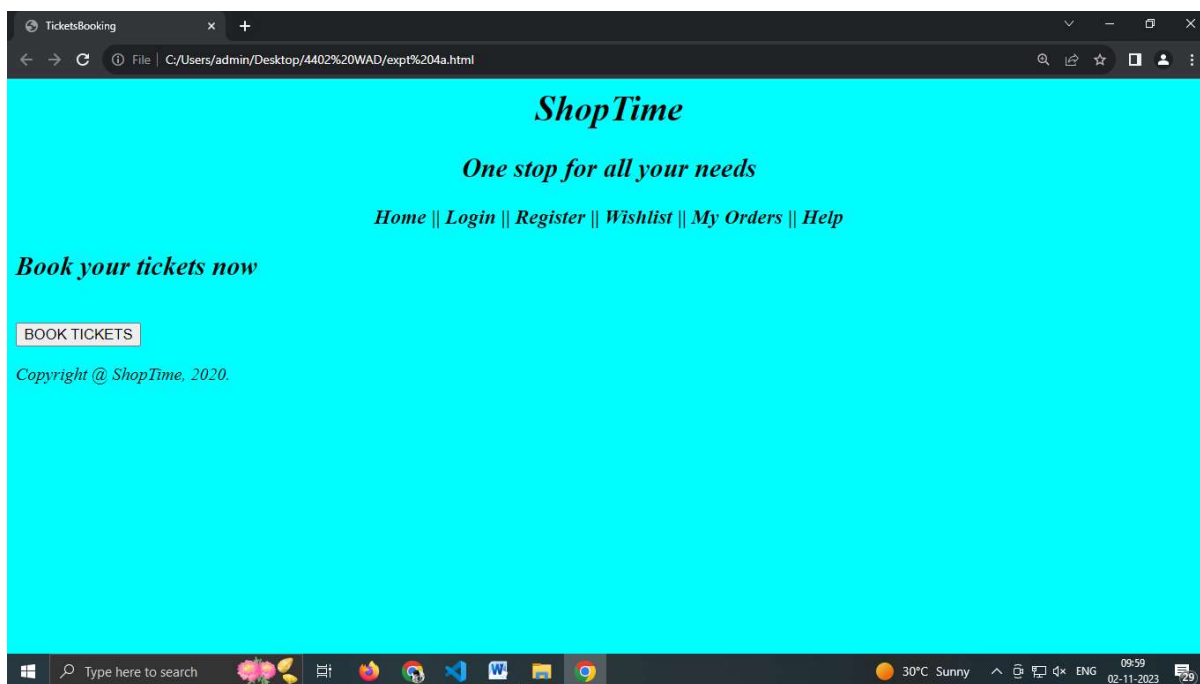
```
<html>

<head>

<title>TicketsBooking</title>
<script>
    var x;var y;var z;
    fun()=>
    {
        var a=prompt("Enter the number of tickets:");
        if(a<6)
        {
            document.getElementById("id").innerHTML="Total amount you need to pay:";
            document.getElementById("id1").innerHTML="Rs."+calculateCost(a);
            document.getElementById("id2").innerHTML="Discount Amount is: Rs."+calculateDiscount(a);
        }
        else
        {
            document.getElementById("id").innerHTML="Sorry! You can book upto 5 tickets only in online!!!";
            document.getElementById("id1").innerHTML="";
            document.getElementById("id2").innerHTML="";
        }
    }
    const p=150;
    calculateCost=(a)=>{
        var i=1;s=0;j=0;k=0.03;
        if(a>2&& a<6) {
            do{
                j=p-(p*k);s+=j;j=0;k+=0.02;i+=1;
            }
            while(i<=a);
        }
        elseif(a<=2){
            s=p*a;
        }
        else
            s=0;
        return s;
    }
    calculateDiscount=(a)=>
    {
        var g=calculateCost(a);var z=a*p;
        return z-g;
    }
}
```

```
</script>
</head>
  <body bgcolor="cyan">
    <center><h1><i>ShopTime</i></h1></center>
    <h2 align="center"><i>One stop for all your needs</i></h2>
    <header>
      <nav align="center"><h3>Home || Login || Register || Wishlist || My Orders || Help</h3>
    </nav>
    <center>
    </header>
    <h2>Book your tickets now</h2><br>
    <input type="button" value="BOOK TICKETS"    onclick="fun()">
    <p id="id"></p>
    <p id="id1"></p>
    <p id="id2"></p>
  </body>
  <footer>Copyright @ ShopTime, 2020.</footer>
</html>
```

## OUTPUT:

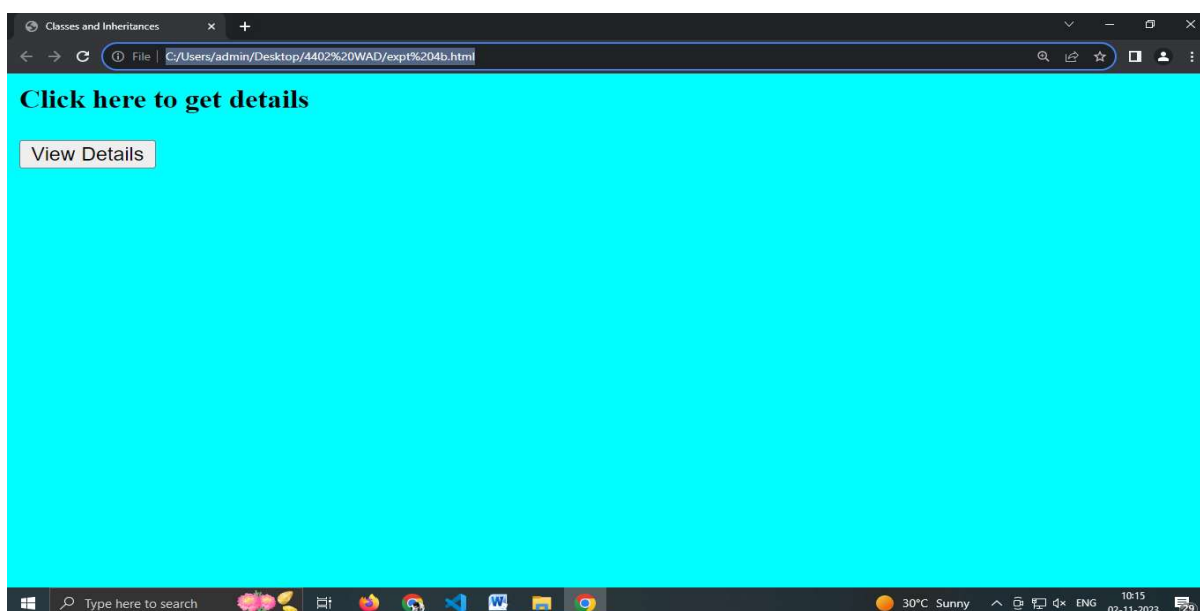


**4B) Course Name: HTML5 – The Language**

Module Name: Classes and Inheritance

Using Classes and Inheritance properties in JavaScript and constructor in JavaScript  
**Program:**

```
<html>
<head><title>Classes and Inheritances</title>
<script>
class Person {
  constructor(name,age) {
    this.name=name;
    this.age=age; }
  Det() {
    return "Name: "+this.name+"<br>"+<br>+"Age: "+this.age;
  }
}
class Employee extends Person{
  constructor(name,age,role,contact) {
    super(name,age);
    this.roll=role;
    this.contact=contact; }
  getDetails() {
    return this.det()+"<br>"+<br>+"Role:"+this.roll+"<br>"+<br>+"Contact: "+this.contact; } }
function fun() {
  let v=new Employee("John Doe",24,"Cloud Architect","9876543210");
  document.getElementById("id1").innerHTML=v.getDetails();}
</script>
</head>
<body bgcolor="cyan">
<h1 style="background-color:white"><center></center></h1>
<h3>Click here to get details </h3>
<p id="id1"></p></center>
<input type="button" value="View Details" onclick="fun()">
</body>
</html>
```

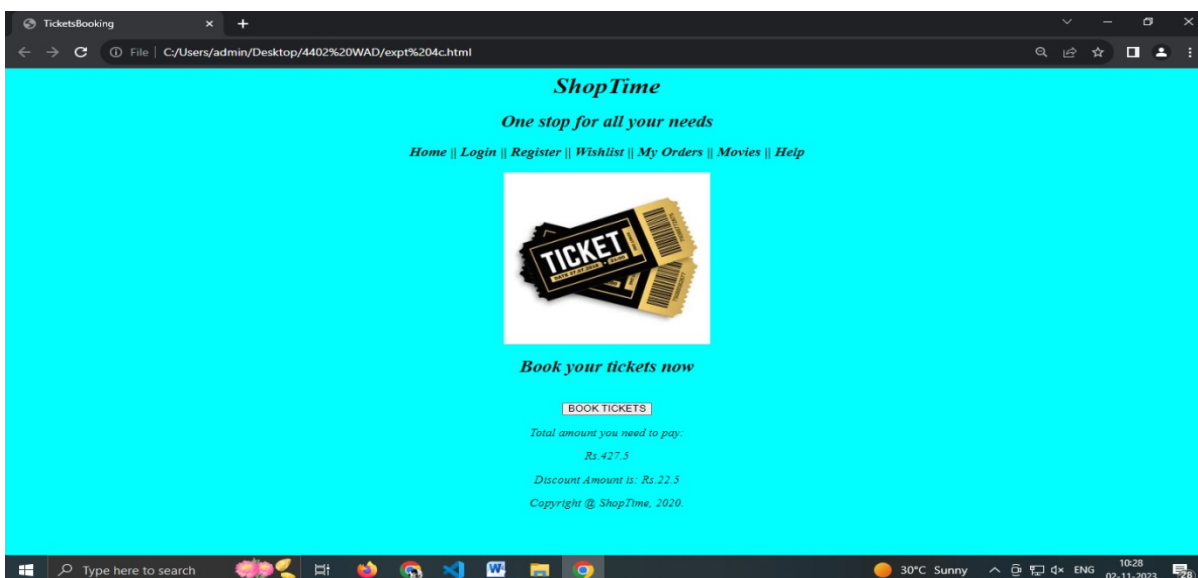
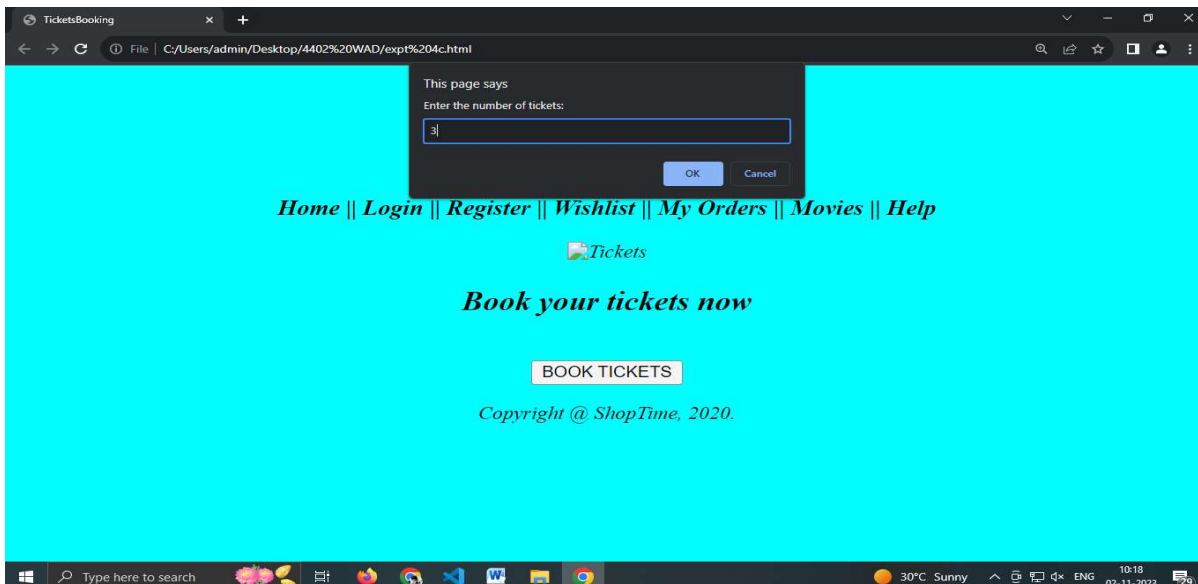
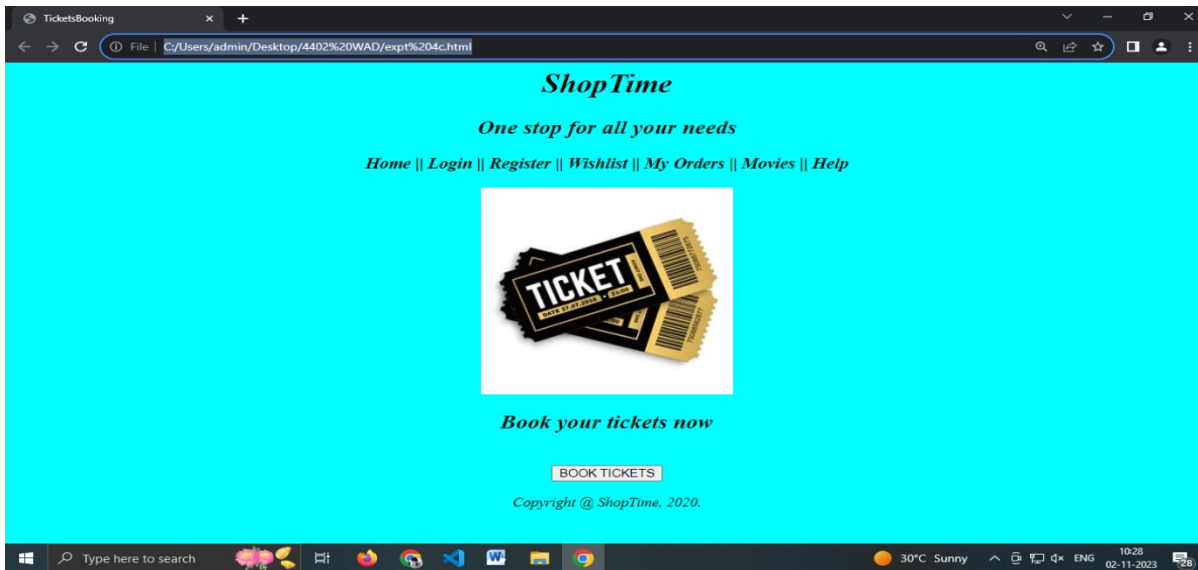
**OUTPUT:**

**4C) Course Name: HTML5 – The Language**

Module Name: Loops and Conditional Statements in JavaScript

Enhancing IEkart's website with "BOOK TICKETS" button

```
<html>
<head>
<title>TicketsBooking</title>
<script>
  var x;var y;var z;
  fun()=>{
    var a=prompt("Enter the number of tickets:");
    if(a<6){
      document.getElementById("id").innerHTML="Total amount you need to pay:";
      document.getElementById("id1").innerHTML="Rs."+calculateCost(a);
      document.getElementById("id2").innerHTML="Discount Amount is: Rs."+calculateDiscount(a);
    }
    else{
      document.getElementById("id").innerHTML="Sorry! You can book upto 5 tickets only in online!!";
      document.getElementById("id1").innerHTML="";
      document.getElementById("id2").innerHTML="";
    }
  }
  const p=150;
  calculateCost=(a)=>{
    var i=1;s=0;j=0;k=0.03;
    if(a>2&& a<6) {
      do{
        j=p-(p*k);s+=j;j=0;k+=0.02;i+=1;
      }while(i<=a);
    }
    elseif(a<=2){
      s=p*a;
    }
    else
      s=0;
    return s; }
  calculateDiscount=(a)=>{
    var g=calculateCost(a);var z=a*p;
    return z-g;}
</script>
</head>
<body bgcolor="cyan">
  <center><h1><i>ShopTime</i></h1></center>
  <h2 align="center"><i>One stop for all your needs</i></h2><header>
  <nav align="center"><h3>Home || Login || Register || Wishlist || My Orders || Movies || Help</h3></nav>
</header>
  <center><imgsrc="tickets.jpg"alt="Tickets"></img>
  <h2>Book your tickets now</h2><br>
  <input type="button" value="BOOK TICKETS" onclick="fun()"><p id="id"></p>
  <p id="id1"></p>
  <p id="id2"></p>
</body>
  <footer>Copyright @ ShopTime, 2020.</footer></center>
</html>
```

**OUTPUT:**



## Experiment No: 5

5A) Course Name: HTML5 – The Language

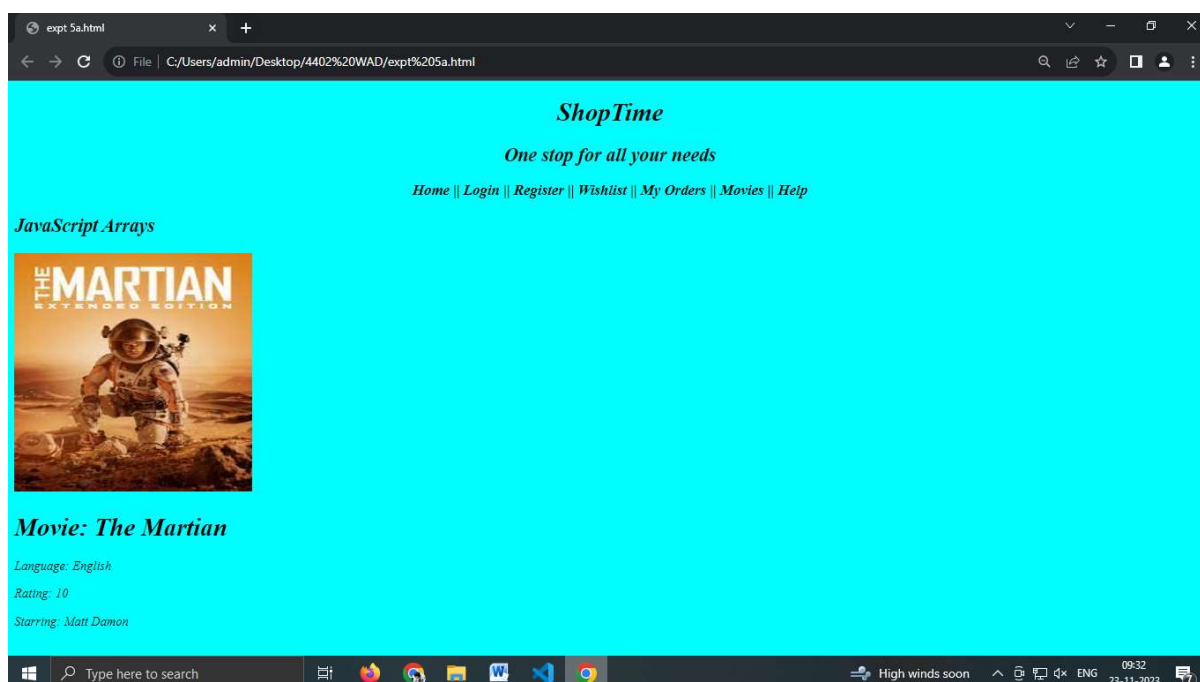
Module Name: JavaScript Arrays

Movie description using Array declaration and Access elements in the Array

### Program :

```
<!DOCTYPE html>
<html>
<body bgcolor="cyan">
<center><h1><i>ShopTime</i></h1>
<h2 align="center"><i>One stop for all your needs</i></h2>
<header>
<nav align="center"><h3>
    Home || Login || Register || Wishlist || My Orders || Movies || Help</h3>
</nav>
</header></center>
<I><h2>JavaScript Arrays</h2></I>
</img>
<B><h1 id="demo1"></h1></B>
<p id="demo2"></p>
<p id="demo3"></p>
<p id="demo4"></p>
<script>const Movie = [ "The Martian", "English", "10", "Matt Damon"];
document.getElementById("demo1").innerHTML = "Movie: "+Movie[0];
document.getElementById("demo2").innerHTML = "Language: "+Movie[1];
document.getElementById("demo3").innerHTML = "Rating: "+Movie[2];
document.getElementById("demo4").innerHTML = "Starring: "+Movie[3];
</script>
</body>
</html>
```

### OUTPUT :



**5B) Course Name: HTML5- The Language**

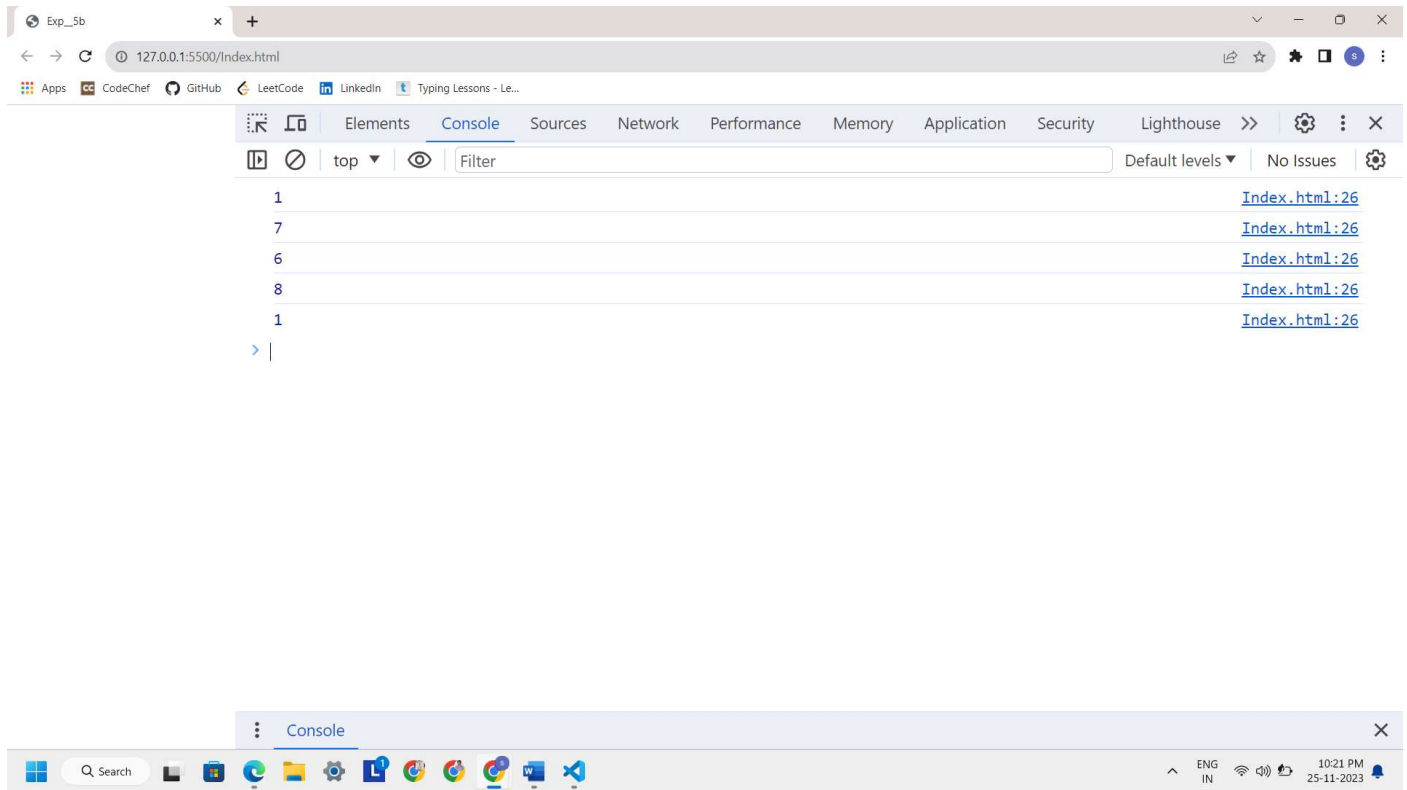
Module Name: Promise and Interval methods

Random Number generator from 0-9

**Program:**

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Exp__5b</title>
</head>
<body>
<script>
let c=0;
const stock = setInterval(stockc,3000);
function stockc(){
  var myPromise = new Promise(function (resolve, reject)
  {
    setTimeout(function ()
    {
      var a=Math.floor(Math.random() * 10);
      resolve(a);
    },
    3000);
  });
  myPromise.then(
    function (data)
    {
      console.log(data);
    },
    function (error) {
      console.log(error);
    }
  );
  c+=1;
  if(c==5)
  {
    Stop();
  }
}
function Stop() {
  clearInterval(stock);
}
</script>
</body>
</html>
```

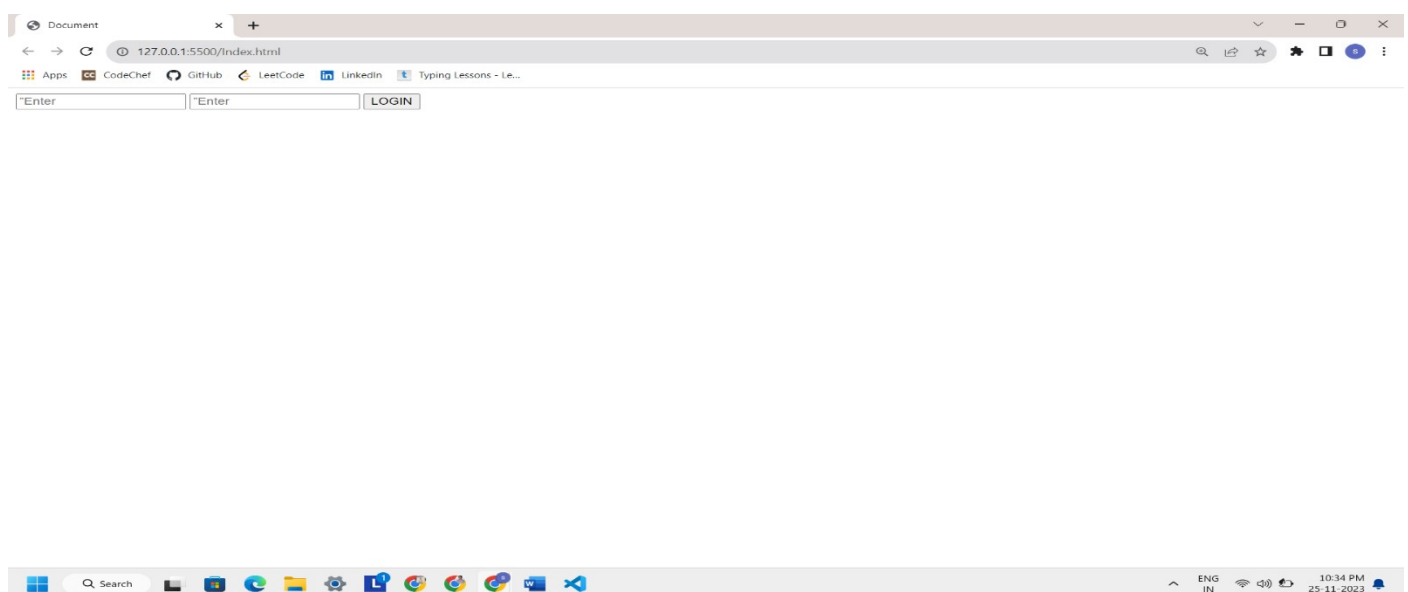
## Output:



**5C) Course Name: HTML5 -The Language**  
**Module Name: User validation and Login Form**  
**Validating the credentials of user in login form.**  
**Program:**

```
<!DOCTYPE html>
<html lang = "en">
<head>
  <meta charset="UTF-8"/>
  <meta http-equiv="X-UA-Compatible" content="IE=edge"/>
  <meta name = "viewport" content="width=device-width,initial-scale=1.0"/>
  <title>Document</title>
</head>
<body>
  <input type = "text" name="name" id="name" placeholder="Enter your username here"/>
  <input type = "password" name="pass" id="password" placeholder="Enter your password"/>
  <button type = "submit" id = "btn"> LOGIN</button>
  <script>
import { User } from './login.js';
document.getElementById('btn').addEventListener('click',() =>{
let username = document.getElementById('name').value;
let password = document.getElementById('password').value;
let user1 = new User("abc", '123');
document.writeln(user1.validateUser(username,password));
});
</script><script>
Class User{
  Constructor(name,pass){
    this.username = name;
    this.password = pass;}
  validateUser(name,pass){
    return name = this.name && pass==this.password) ? "Login Successful" :
    "Unauthorized access";}}
</script>
</body>
```

**Output:**



**Experimentno:-6****Node.js**

Course Name: Node.js

Module Name: How to use Node.js

Verify how to execute different functions successfully in the Node.js platform.

Aim: Learning about use of Node.js and verifying how to execute different functions successfully in the Node.js platform.

Sample.js

```
console.log("Node.js program to proceed");
```

```
C:\Users\giridhar>cd nodejs
```

```
C:\Users\giridhar\nodejs>node sample.js
```

Node.js program to proceed

Program:-

```
function tester()
{
var m=10; var
message;if
(m%2==0)
{
message = "m is an even number";
}
else
{
message = "m is not an even number";
}
console.log(message);
}
tester();
```

**Output:-**

```
PS C:\python programs\mean stack> node week6a.jsm is
an even number
```

**Exp No : 6.b**

Course Name: Node.js

Module Name: Create a web server in Node.js

Write a program to show the workflow of JavaScript code executable by creating web server in Node.js.

Aim: Creating a web server in Node.js and showing the workflow of JavaScript code executable by creating web server in Node.js.

Program:-

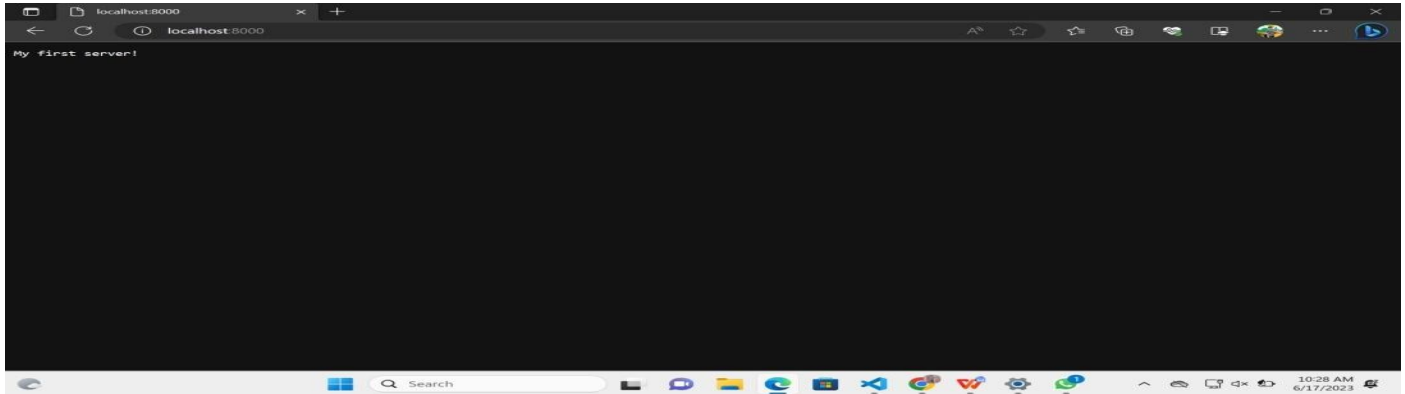
```
const http = require("http");
const host = 'localhost'; const
port = 8000;
const requestListner = function(req, res) {
res.end("My first server!");
};
const server = http.createServer(requestListner);
server.listen(port, host, () => {
console.log(`Server is running on http://${host}:${port}`);
})
```

Output:-

PS C:\python programs\mean stack> node week6b.js

Server is running on <http://localhost:8000>

### OUTPUT:



### Exp No : 6.c

Course Name: Node.js

Module Name: Modular programming in Node.js

Write a Node.js module to show the workflow of Modularization of Node application.

Aim: Write a Node.js module to show the workflow of Modularization of Node application

Program:-

Module.js

```
exports.authenticateUser = (a, b) =>
{
  return a+b;
};
```

Auth.js

```
const http = require("http");
var dbmodule = require("./giri");
var server = http.createServer((request, response) => {
  result = dbmodule.authenticateUser(4000,2);
  response.writeHead(200, { "Content-Type": "text/html" });
  response.end("<html><body><h1>" + result + "- You have connected to the localhost4002 </h1></body></html>");
  console.log("Request received");
});
server.listen(4002);
console.log("Server is running at port 4002");
```

Output:-

PS C:\python programs\mean stack> node Auth.js

Server is running at port 4002

Request received

Request received

### OUTPUT:



### Exp No : 6.d

Course Name: Node.js

Module Name: Restarting Node Application

Write a program to show the workflow of restarting a Node application.

Aim: Program to show the workflow of restarting a node application.

Nodemon

To install it in the application, run the below command.

`npm install nodemon -g`

Program:-

```
const http = require("http");
var server = http.createServer((req, res) => {
  res.write("Hello ! I have created my second server modified giri!");
  res.end();
});
server.listen(3000);
console.log("Server started... Running on localhost:3000");
```

Output:-

PS C:\python programs\mean stack> nodemon week6c.js[nodemon]

2.0.22

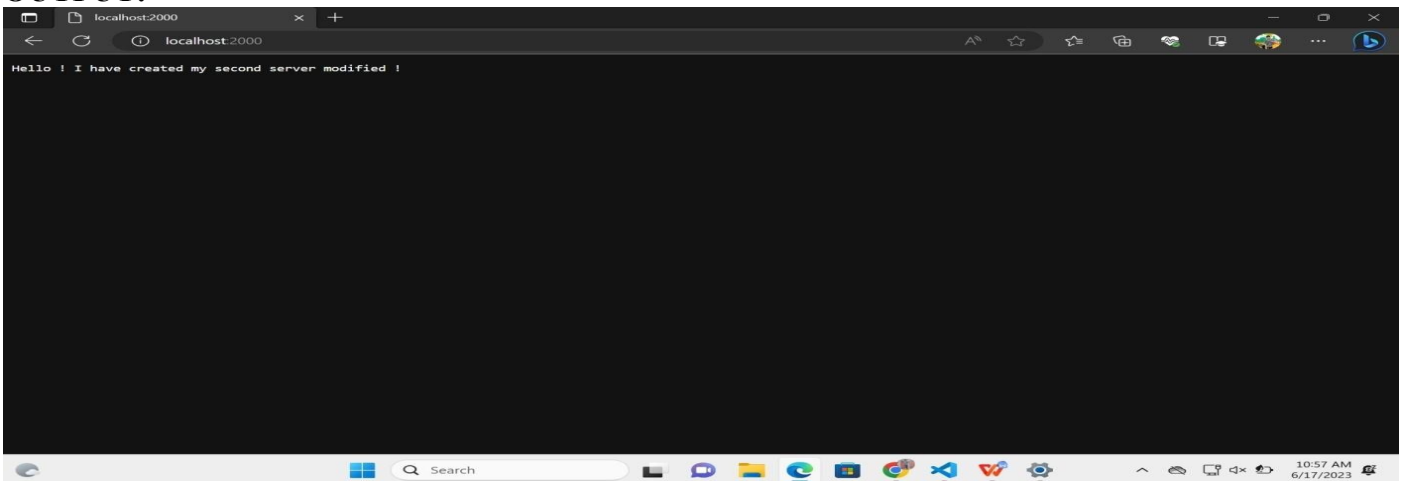
[nodemon] to restart at any time, enter `rs`

[nodemon] watching path(s): \*.\*

[nodemon] watching extensions: js,mjs,json

[nodemon] starting `node week6c.js` Server started... Running on localhost:5000

### OUTPUT:



### Exp No : 6.e

Course Name: Node.js

Module Name: File Operations



Create a text file src.txt and add the following data to it. Mongo, Express, Angular, Node. Aim: To create a text file src.txt and add the following data to it.

Program:-

```
// Node.js program to demonstrate the
// fs.copyFile() method
// Import the filesystem module
const fs = require('fs');
// Get the current filenames
// before the function
getCurrentFilenames();
console.log("\nFile Contents of source.txt:",
fs.readFileSync("source.txt", "utf8"));
// Copying the file to a the same name
fs.copyFile("source.txt", "target.txt", (err) => {if
(err) {
console.log("Error Found:", err);
}
else {
}
});
// Get the current filenames
// after the function
getCurrentFilenames();
console.log("\nFile Contents of copied_file:",
fs.readFileSync("target.txt", "utf8"));
// Function to get current filenames
// in directory
function getCurrentFilenames()
{ console.log("\nCurrent filenames:");
fs.readdirSync(
dirname).forEach(file =>
{console.log(file);
});
}
```

**Output:-**

PS C:\python programs\mean stack> node week6e.js

Current filenames:

colour.css  
colour.html  
CSE.html  
download.jpg durga-  
devi-png.png  
exam1.html  
exam2.html  
exam3.html  
exam4.html  
first.html  
FLS-Blog-Black-Logos\_Hero.jpg  
function.js  
giri.jpg  
giri.js  
ice.jpg  
images.jpg  
lucky.mp4  
ma\_platinum\_200\_iso\_white.jpg

mo.jpeg  
mystyle.css  
node\_modules  
package-lock.json  
package.json Rolex  
Bgm.mp3  
source.txt src.html  
style.html  
table.html  
target.txt  
title.html  
Vaarasudu.mp4  
week.js week.ts

**Experiment No:-7**

Typescript

Installation of typescript

If you have npm installed, you can install TypeScript globally (-g) on your computer by: **npm install -g typescript**

You can test your install by checking the version or help. **tsc -version**

7.a Course Name: Typescript Module

Name: Basics of TypeScript

On the page, display the price of the mobile-based in three different colors.

Instead of using the number in our code, represent them by string values like

GoldPlatinum, PinkGold, SilverTitanium

Program:-

Typescript:-

```
const obj: {GoldPlatinum: string} = {GoldPlatinum: "$10000"}
const ob1: {PinkGold: string} = {PinkGold: "$900"}
const ob2: {SilverTitanium: string} = {SilverTitanium: "$1500"}
console.log("\nMobilecolor
Price\n")
console.log("\nGoldPlatinum:\t"+obj.GoldPlatinum+"\n")
console.log("\nPinkGold:\t"+ob1.PinkGold+"\n")
console.log("\nSilverTitanium:\t"+ob2.SilverTitanium+"\n")
```

**Output:-**

D:&gt;cd mst

D:\mst&gt;cd ts

C:\python programs\mean stack&gt;tsc week9a.ts

C:\python programs\mean stack&gt;node week9a.js

Mobilecolor Price

GoldPlatinum: \$10000

PinkGold:

\$900

SilverTitanium: \$1500

**Exp No : 7.b**

Define an arrow function inside the event handler to filter the product array with the selected product object using the productId received by the function. Pass the selected product object to the next screen.

Program:-

Type script:-

```
var getProductDetails=(productId :
number):string=>{return "product Id:"+productId
};
console.log(getProductDetails(1234));
```

**Output:-**

C:\python programs\mean stack&gt;tsc week7b.ts

C:\python programs\mean stack&gt;node week7b.js

product Id:1234

**Exp No : 7.c**

Course Name: Typescript Module Name: Parameter Types and Return Types Consider that developer needs to declare a function - getMobileByVendor which accepts string as input parameter and returns the list of mobiles.

Program:-

```
function getMobileByManufacturer(manufacturer: string): string[]
{
let mobileList: string[];
if (manufacturer === 'Samsung')
```

```

{ mobileList = ['Samsung Galaxy S6 Edge', 'Samsung Galaxy Note 7',
'Samsung Galaxy J7 SM-J700F'];
return mobileList;
}
else if (manufacturer === 'Apple') {
mobileList = ['Apple iPhone 5s', 'Apple iPhone 6s ', 'Apple iPhone 7'];
return mobileList;
}
else {
mobileList = ['Nokia 105', 'Nokia 230 Dual Sim'];
return mobileList;
} }
console.log('The available Samsung mobile list: [' +
getMobileByManufacturer('Samsung')+']');
console.log("\nThe available Iphone mobile list: [' +
getMobileByManufacturer('Apple')+""]");

```

**Output:-**

```

C:\python programs\mean stack>tsc week7c.ts
C:\python programs\mean stack>node week7c.js
The available Samsung mobile list: [Samsung Galaxy S6 Edge,Samsung Galaxy Note
7,Samsung Galaxy J7 SM-J700F]
The available Iphone mobile list: [Apple iPhone 5s,Apple iPhone 6s ,Apple iPhone 7]
C:\python programs\mean stack>

```

**Exp No : 7.d**

Course Name: Typescript

Module Name: Arrow Function

Consider that developer needs to declare a manufacturer's array holding 4 objects with id and price as a parameter and needs to implement an arrow function - myfunction to populate the id parameter of manufacturers array whose price is greater than or equal to 150 dollar then below mentioned code snippet would fit into this requirement.

Program:-

```

var manufacturers = [{ id: 'Samsung', price: 150 },
{ id: 'Microsoft', price: 200 },
{ id: 'Apple', price: 0 },
{ id: 'Micromax', price: 100 } ];
var test;
console.log('Details of Manufacturer array are: ');
function myFunction() {
test = manufacturers.filter((m) =>
m.price >= 150);
for (var item of test) { console.log(item.id);
}
} myFunction();

```

**Output:-**

```

C:\python programs\mean stack>tsc week7d.ts
C:\python programs\mean stack>node week7d.js
Details of Manufacturer array are:
Samsung
Microsoft
C:\python programs\mean stack>

```

**Exp 7e)** Course Name: Typescript

Module Name: Optional and Default Parameters

Declare a function - getMobileByManufacturer with two parameters namely manufacturer and id, where manufacturer value should be passed as Samsung and id

parameter should be optional while invoking the function, if id is passed as 101 then this function should return Moto mobile list and if manufacturer parameter is either Samsung/Apple then this function should return respective mobile list and similar to make Samsung as default Manufacturer. Below mentioned code-snippet would fit into this requirement.

Program:-

```
function getMobileByManufacturer(manufacturer: string = 'Samsung', id?: number):
string[] { let mobileList: string[];
if (id) { if (id === 101) {
mobileList = ['Moto G Play, 4th Gen', 'Moto Z Play with Style Mod'];
return mobileList;
}}
if (manufacturer === 'Samsung') {
mobileList = [' Samsung Galaxy S6 Edge', ' Samsung Galaxy Note 7',
Samsung Galaxy J7 SM-J700F'];
return mobileList;
}
else if (manufacturer === 'Apple') {
mobileList = [' Apple iPhone 5s', ' Apple iPhone 6s', ' Apple iPhone 7'];
return mobileList;
}
else {
mobileList = [' Nokia 105', ' Nokia 230 Dual Sim'];
return mobileList;}}
console.log('The available mobile list : ' + getMobileByManufacturer('Apple'));
console.log('The available mobile list : ' + getMobileByManufacturer(undefined, 101))
```

Output:-

C:\python programs\mean stack>tsc week7e.ts

C:\python programs\mean stack>node week7e.js

The available mobile list : Apple iPhone 5s, Apple iPhone 6s, Apple iPhone 7

The available mobile list : Moto G Play, 4th Gen, Moto Z Play with Style Mod

C:\python programs\mean stack>

## ADDITIONAL EXERCISES

Creating I'D card using table elements.

Program:

```
<html>
<head>
  <title>ID CARD</title>
  <link href="style.css" rel="stylesheet">
  <meta charset="UTF-8">
</head>
<body>
  <div class="total">
    <div class="upper">
      <h1>SASI</h1>
      <h3><u>INSTITUTE OF</u>
      <br><u>TECHNOLOGY &</u>
      <br><u>ENGINEERING</u></h3>
      <h4><u>autonomous</u></h4>
      <p class="line">Tadepalligudem - 534101, www.sasi.ac.in</p>
    </div>
    <div class="content">
      
      <h5>Values we live...</h5>
    </div>
  </div>
</body>
</html>
```

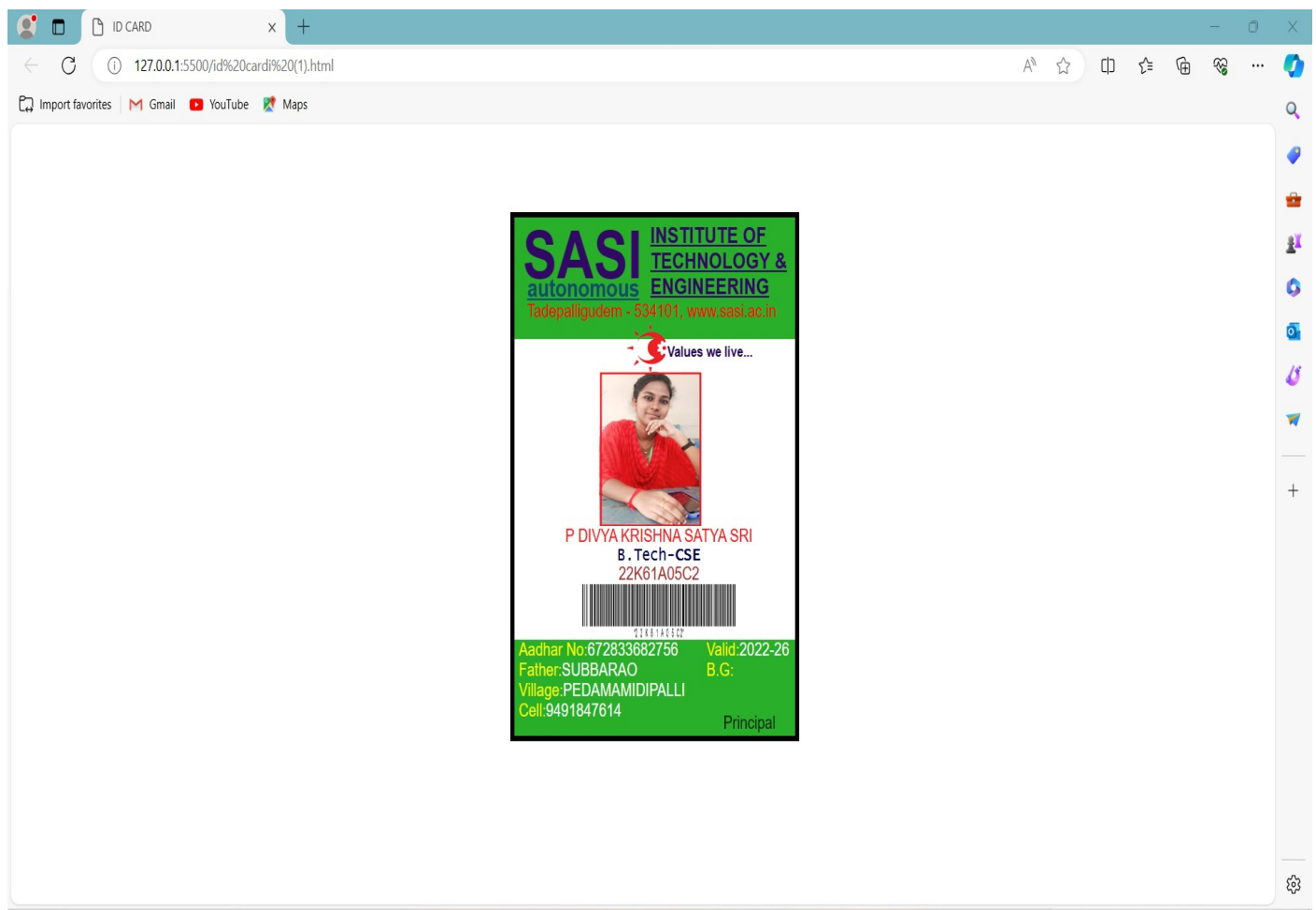
```


<p>P DIVYA KRISHNA SATYA SRI
<br><span style="color:#02024d;font-family: lucida console;">B.Tech-<b>CSE</b></span>
<br><span style="color:brown;">22K61A05C2</span>
</p>

</div>
<div class="container">
<div id="heading">
<div class="one">Aadhar No:<span style="color:white;">672833682756</span></div>
<div class="three">Father:<span style="color:white;">SUBBARAO</span></div>
<div class="five">Village:<span style="color:white;">PEDAMAMIDIPALLI</span></div>
<div class="seven">Cell:<span style="color:white;">9491847614</span></div>
</div>
<div id="values">
<div class="nine">Valid:<span style="color:white;">2022-26</span></div>
<div class="last">B.G:</div>
<div class="sign">Principal</div>
</div>
</div>
</div>
</body>
</html>

```

## Output:



## REGISTRATION FORMS.

Creating REGISTRATION FILES.

### Program1: REGISTRATION FORM

```
<!DOCTYPE html>
<html>
  <head>
    <title>Welcome To Registration Form</title>
    <link href="style (1).css" rel="stylesheet">
    <script src="register.js"></script>
  </head>
  <body>
    <div id="main" class="container" style="box-sizing: border-box;border: 5px solid rgb(183, 235, 42);border-radius: 5%;width:500px; height: 500px;margin-left: 550px;background-color: #9b415c;">
      <div class="content">
        <h1 style="padding-left: 130px;margin-top:50px;"><u>Registration Form</u></h1>
      </div>
      <div class="login" style="margin-top: 50px;">
        <table cellspacing="2" align="center" cellpadding="8" border="0">
          <tr>
            <td align="right" style="padding-right: 50px;"><b>Enter Name :</b></td>
            <td style="padding-left:8px"><input type="text" placeholder="Enter user here" id="name" class="tb" name="name"/></td>
          </tr>
          <tr>
            <td align="right" style="padding-right: 28px;"><b>Enter Email ID :</b></td>
            <td><input type="text" placeholder="Enter Email ID here" id="email" class="tb" name="email"/></td>
          </tr>
          <tr>
            <td><label for="phoneNumber"><b>Phone Number:</b></label></td>
            <td><input type="number" placeholder="Enter Phone Number" id="t3"></td>
          </tr>
          <tr>
            <td><label for="gender"><b>Gender:</b></label></td>
            <td>
              Male: <input type="radio" name="gender" value="male">
              Female: <input type="radio" name="gender" value="female">
              Other: <input type="radio" name="gender" value="other">
            </td>
          </tr>
          <tr>
            <td align="right" style="padding-right: 25px;"><b>Enter Password :</b></td>
            <td><input type="password" placeholder="Enter Password here" id="pwd" class="tb" name="pwd"/></td>
          </tr>
          <tr>
            <td align="right" style="padding-right: 5px;"><b>Confirm Password :</b></td>
            <td><input type="password" placeholder="Enter Password here" id="t5" class="tb" /></td>
          </tr>
          <tr>
            <td></td>
            <td>
              <input type="submit" value="REGISTER" class="btn" onclick="registration()" style="margin-top: 30px;margin-left: -15%;background-color: rgba(72, 30, 241, 0.951);"/></td>
          </tr>
        </table>
        <p style="padding-left: 130px;">Already Registered?<a href="login.html" style="color: rgba(245, 38, 15, 0.878)">SIGN IN</a></p>
      </div>
    </div>
  </body>
</html>
```

**OUTPUT:**



**Registration Form**

Enter Name :

Enter Email ID :

Phone Number:

Gender: Male: ☐ Female: ☐ Other: ☐

Enter Password :

Confirm Password :

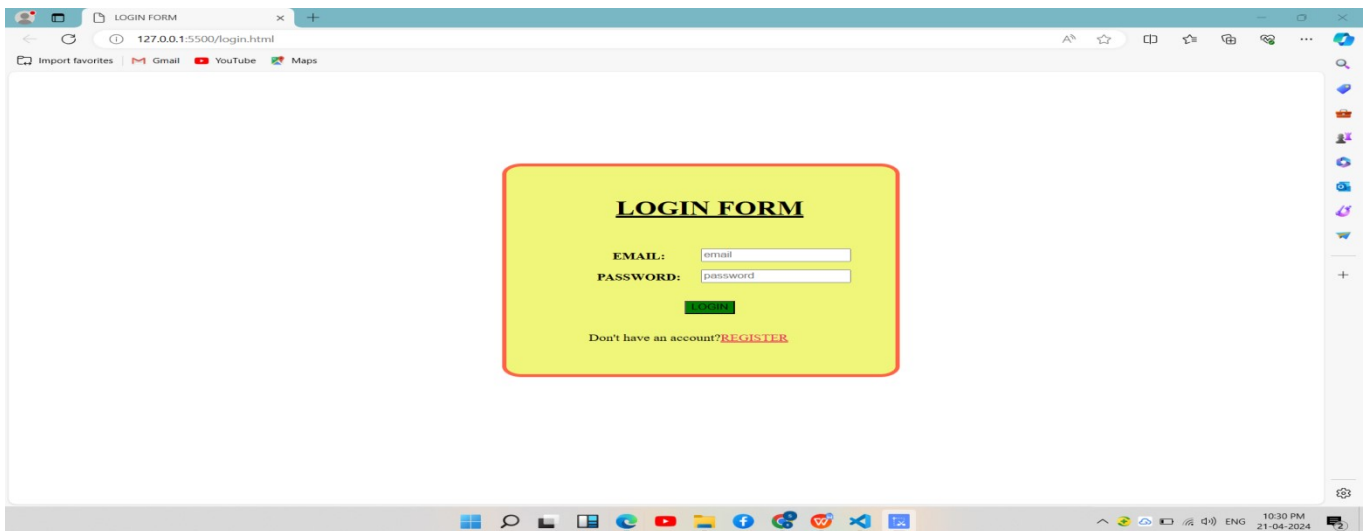
[REGISTER](#)

Already Registered? [Login](#)

## Program2: LOGIN FORM

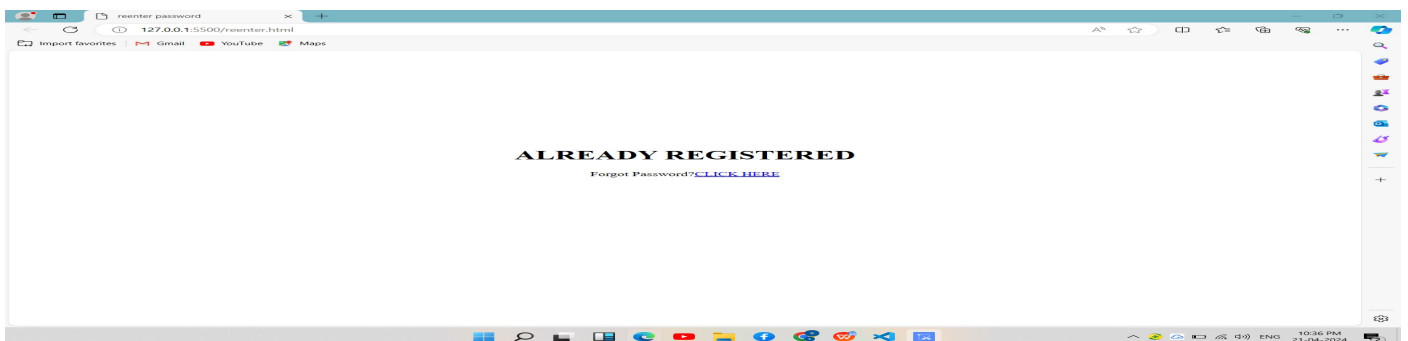
```
<!DOCTYPE html>
<html lang="en">
  <head>
    <title>LOGIN FORM</title>
    <link href="id cardi.html" rel="stylesheet">
  </head>
  <body style>
    <div class="total" style="text-align: center;padding-right: 300px;">
      <h1 style="padding-left: 150px;">LOGIN FORM</h1>
      <form name="f1" action="id cardi.html">
        <p>USERNAME:</p>
        <p style="position: absolute; padding-left: 660px; margin-top: -2.5%;"><input type="text"
placeholder="username" name="username" value=""></p>
        <p>PASSWORD:</p>
        <p style="position: absolute; padding-left: 660px; margin-top: -2.5%;"><input type="password"
placeholder="password" name="password"></p>
        <p style="padding-left: 150px;"><button type="submit" onclick="return
validate()">SUBMIT</button></p>
      </form>
    </div>
    <script type="text/javascript">
      function validate()
      {
        var user="22K61A05C2";
        document.f1.username.value=user;
        var firstpassword=document.f1.username.value;
        var secondpassword=document.f1.password.value;

        if(firstpassword==secondpassword){
          return true;
        }
        else{
          alert("INVALID CREDENTIALS!");
          return false;
        }
      }
    </script>
  </body>
</html>
```

**OUTPUT:****Program3: REENTER PASSWORD**

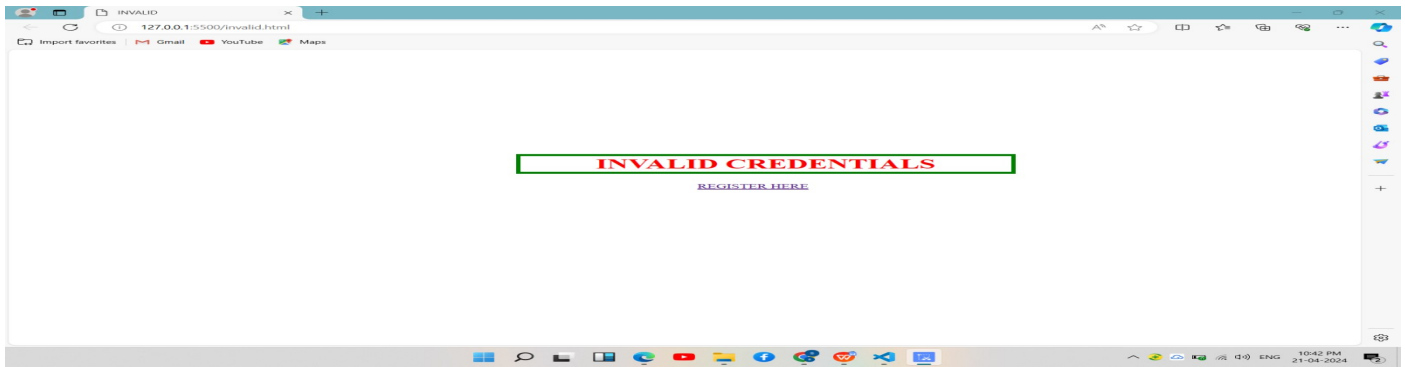
```
<!DOCTYPE html>
```

```
<html>
<head>
  <title>reenter password</title>
</head>
<body style="text-align: center;margin-top: 250px;">
  <h1>ALREADY REGISTERED</h1>
  <p>Forgot Password?<a href="relogin.html">CLICK HERE</a></p>
</body>
</html>
```

**OUTPUT:****Program4:INVALID FORM**

```
<!DOCTYPE html>
<html>
<head>
  <title>INVALID</title>
</head>
<body style="text-align: center;margin-top: 250px;">
  <h1 style="color: red;box-sizing: border-box; border: 5px solid green;width:550px;margin-left: 550px;">INVALID CREDENTIALS</h1>
  <p style="color:blue;padding-left:150px;"><a href="register.html">REGISTER HERE</a></p>
</body>
</html>
```

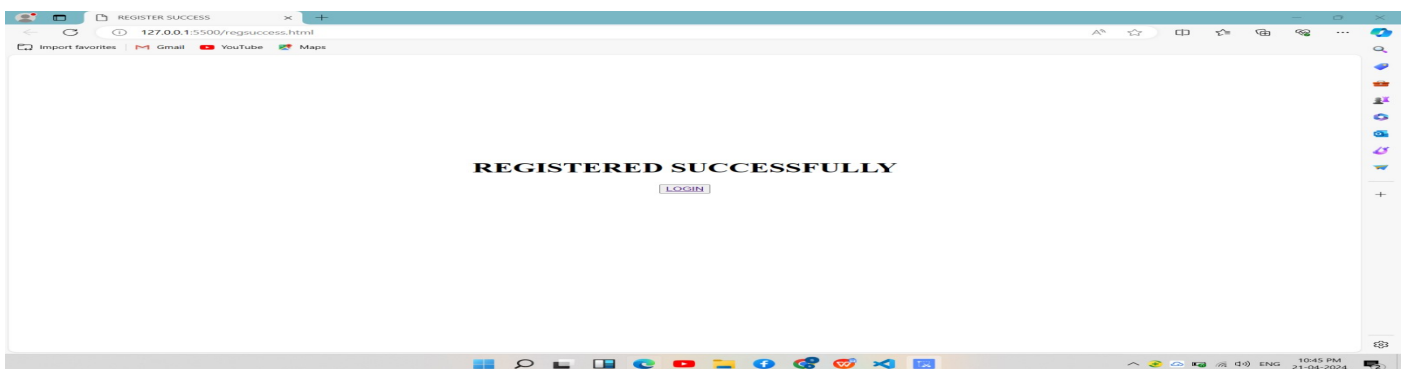
**OUTPUT:**



## Program5:REGISTRATION SUCCESSFUL FORM

```
<!DOCTYPE html>
<html>
  <head>
    <title>REGISTER SUCCESS</title>
  </head>
  <body style="text-align: center;margin-top: 250px;">
    <h1>REGISTERED SUCCESSFULLY</h1>
    <button type="submit"><a href="login.html">LOGIN</a></button>
  </body>
</html>
```

### OUTPUT:



## Program6:RELOGIN FORM

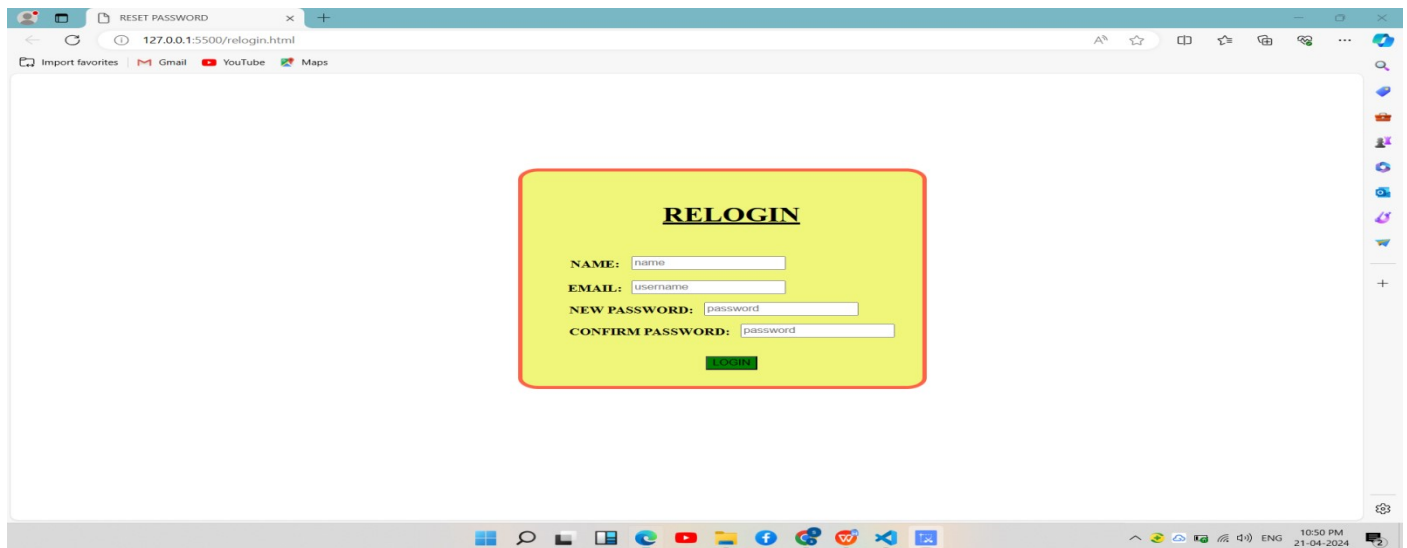
```
<!DOCTYPE html>
<html lang="en">
  <head>
    <title>RESET PASSWORD</title>
  </head>
  <body>
    <div class="total" style="text-align: center;box-sizing: border-box;border: 5px solid
tomato;border-radius: 5%; width:450px; height: 350px;margin-left: 550px;margin-top: 150px;background-
color: rgba(228, 239, 17, 0.562);">
      <h1 style="padding-left: 20px;margin-top: 50px;"><u>RESET PASSWORD</u></h1>
      <p style="padding-right: 280px; margin-top: 50px;"><b>NAME:</b></p>
      <p style="position: absolute; padding-left: 120px; margin-top: -2.5%;"><input type="text"
placeholder="name" name="name" id="name"></p>
      <p style="padding-right: 280px; margin-top: 20px;"><b>EMAIL:</b></p>
      <p style="position: absolute; padding-left: 120px; margin-top: -2.5%;"><input type="text"
placeholder="username" name="username" id="email"></p>
      <p style="padding-right: 200px;"><b>NEW PASSWORD:</b></p>
      <p style="position: absolute; padding-left: 200px; margin-top: -2.5%;"><input
type="password" placeholder="password" name="password" id="pwd"></p>
      <p style="padding-right: 160px;"><b>CONFIRM PASSWORD:</b></p>
      <p style="position: absolute; padding-left: 240px; margin-top: -2.5%;"><input
type="password" placeholder="password" name="password" id="cpwd"></p>
      <p style="padding-left: 20px; margin-top: 30px;"><input type="submit"
onclick="validate()" style="background-color: green;" value="LOGIN"></p>
    </div>
```

```

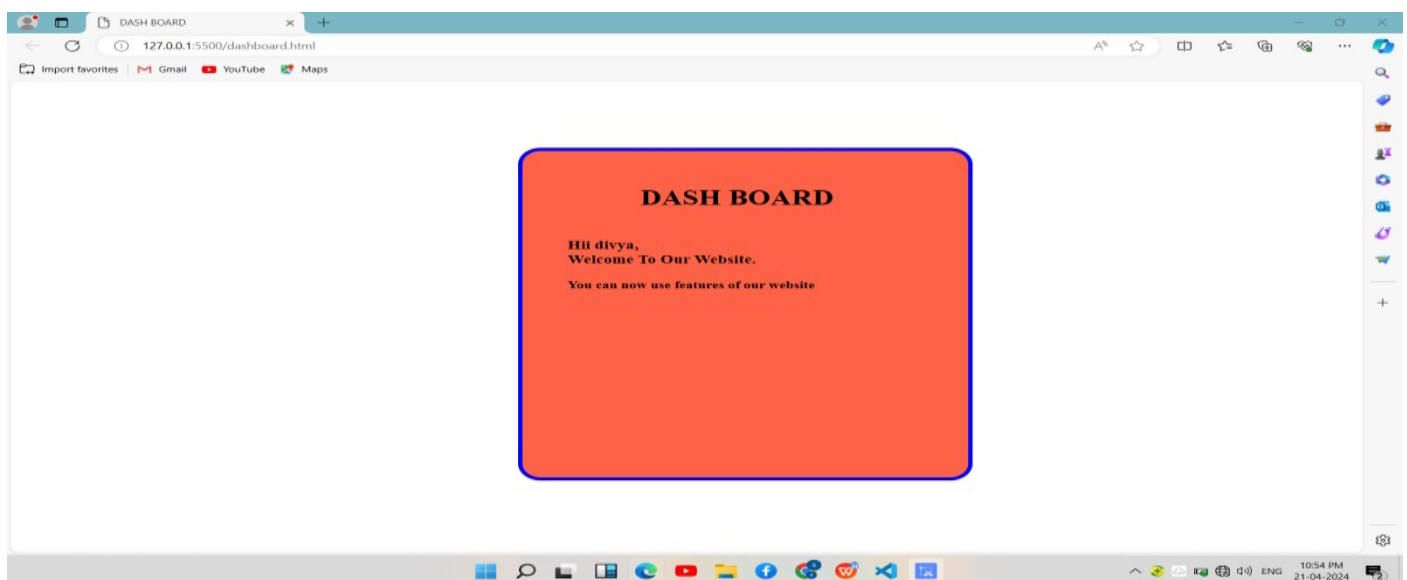
<script>
function validate(){
  localStorage.clear();
  let email,pwd,cpwd,name;
  name=document.getElementById("name").value;
  email= document.getElementById("email").value;
  pwd= document.getElementById("pwd").value;
  cpwd= document.getElementById("cpwd").value;
  pwd_expression = /^(?=.*?[A-Z])(?=.*?[a-z])(?=.*?[0-9])(?=.*?[#?!@$%^&*~])/;
  filter = /^[a-zA-Z0-9_\.\\-]+\\@((([a-zA-Z0-9\\-]+\\.)+([a-zA-Z0-9]{2,4})+)$/;
  letters = /^[A-Za-z]+$/;
  if(name=='')
  {
    alert('Please enter your name');
  }
  else if(!letters.test(name))
  {
    alert('Name field required only alphabet characters');
  }
  else if(pwd=='')
  {
    alert('Please enter Password');
  }
  else if(cpwd=='')
  {
    alert('Enter Confirm Password');
  }
  else if(!pwd_expression.test(pwd))
  {
    alert ('Upper case, Lower case, Special character and Numeric letter are required
in Password filed');
  }
  else if(pwd != cpwd)
  {
    alert ('Password not Matched');
  }
  else if(document.getElementById("cpwd").value.length < 6)
  {
    alert ('Password minimum length is 6');
  }
  else if(document.getElementById("cpwd").value.length > 12)
  {
    alert ('Password max length is 12');
  }
  else if(email=='')
  {
    alert('Please enter your user email id');
  }
  else if (!filter.test(email))
  {
    alert('Invalid email');
  }
  else
  {
    localStorage.clear();
    let user=new Array();
    user=JSON.parse(localStorage.getItem("ud"))?JSON.parse(localStorage.getItem("ud")):[]

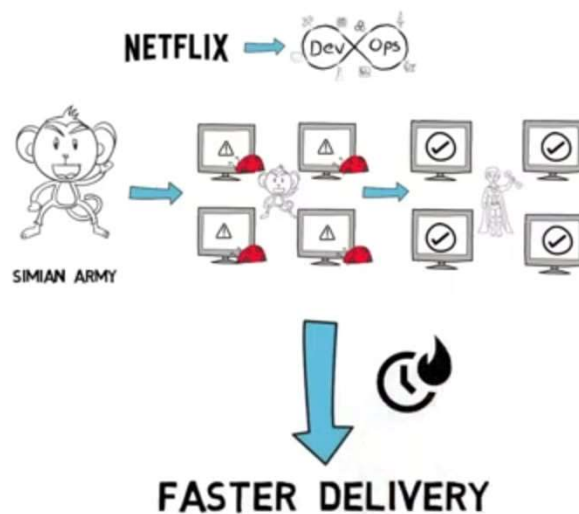
    user.push({
      "name":name,
      "email":email,
      "pwd":pwd
    })
    localStorage.setItem("ud",JSON.stringify(user));
    alert('Thank You for Reentering Password');
    window.location.href = "regsuccess.html";
  }
}
</script>
</body>
</html>

```

**OUTPUT:****Program7:DASHBOARD**

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <title>DASH BOARD</title>
  </head>
  <body>
    <div class="contain" style="box-sizing: border-box;border: 5px solid blue;background-color:
tomato; width: 500px; height: 500px; border-radius: 5%;margin-left: 550px;margin-top: 100px;">
      <h1 style="padding-left: 130px;padding-top: 30px;">DASH BOARD</h1>
      <h3 style="padding-left: 50px;padding-top: 20px;">Hii
        <script>
          n=document.write(localStorage.getItem("name"));
          n.style.color="tomato";
        </script>,
        <br>Welcome To Our Website.</h1>
        <p style="padding-left: 50px;"><b>You can now use features of our website</b></p>
      </h3>
    </div>
  </body>
</html>
```

**OUTPUT:**

**DEVOPS:****GIT:****How Git Commands work**

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