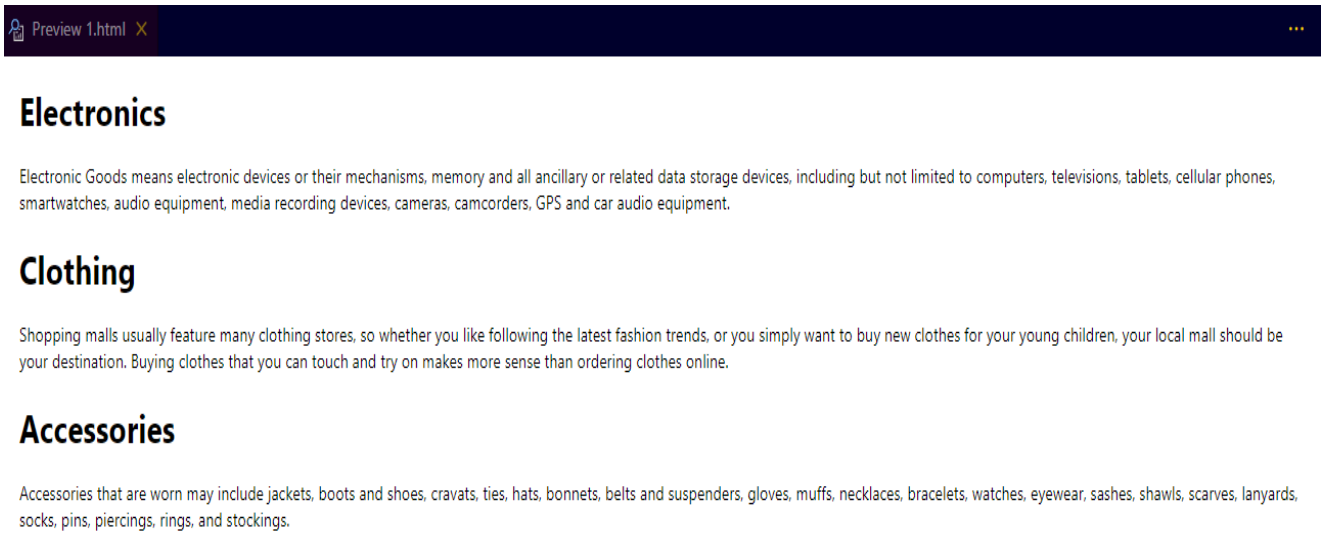
Exercise 1.a

Aim :- 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, Accessories etc

Program :-

```
<!DOCTYPE html>
<html>
<head>
 <meta charset="UTF-8">
 <meta name="description" content="IEKart's 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="onlineshopping,IEKarts">
  <meta name="author" content="Satya">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>
<h1>Electronics</h1>
        <p>Electronic Goods means electronic devices or their mechanisms, memory and all ancillary or related data storage devices, including but not limited to computers, televisions, tablets, cellular phones, smartwatches, audio equipment, media recording devices, cameras, camcorders, GPS and car audio equipment.</p>
<h1>Clothing</h1>
        <p>Shopping malls usually feature many clothing stores, so whether you like following the latest fashion trends, or you simply want to buy new clothes for your young children, your local mall should be your destination. Buying clothes that you can touch and try on makes more sense than ordering clothes online.</p>
<h1>Accessories</h1>
        <p>Accessories that are worn may include jackets, boots and shoes, cravats, ties, hats, bonnets, belts and suspenders, gloves, muffs, necklaces, bracelets, watches, eyewear, sashes, shawls, scarves, lanyards, socks, pins, piercings, rings, and stockings.</p>
</body>
</html>
```

Output :-


Preview 1.html
Electronics
Electronic Goods means electronic devices or their mechanisms, memory and all ancillary or related data storage devices, including but not limited to computers, televisions, tablets, cellular phones, smartwatches, audio equipment, media recording devices, cameras, camcorders, GPS and car audio equipment.
Clothing
Shopping malls usually feature many clothing stores, so whether you like following the latest fashion trends, or you simply want to buy new clothes for your young children, your local mall should be your destination. Buying clothes that you can touch and try on makes more sense than ordering clothes online.
Accessories
Accessories that are worn may include jackets, boots and shoes, cravats, ties, hats, bonnets, belts and suspenders, gloves, muffs, necklaces, bracelets, watches, eyewear, sashes, shawls, scarves, lanyards, socks, pins, piercings, rings, and stockings.

Exercise 1.b

Aim :- Enhance the Homepage.html of IEKart's Shopping Application by adding appropriate sectioning elements.

Procedure : -
Some of the Sectioning Elements are Aside,Article,Address etc

Aside :- The <aside> HTML element represents a portion of a document whose content is only indirectly related to the document's main content. Asides are frequently presented as sidebars or call-out boxes.

Article :- The <article> HTML element represents a self-contained composition in a document, page, application, or site, which is intended to be independently distributable or reusable (e.g., in syndication). Examples include: a forum post, a magazine or newspaper article, or a blog entry, a product card, a user-submitted comment, an interactive widget or gadget, or any other independent item of content.

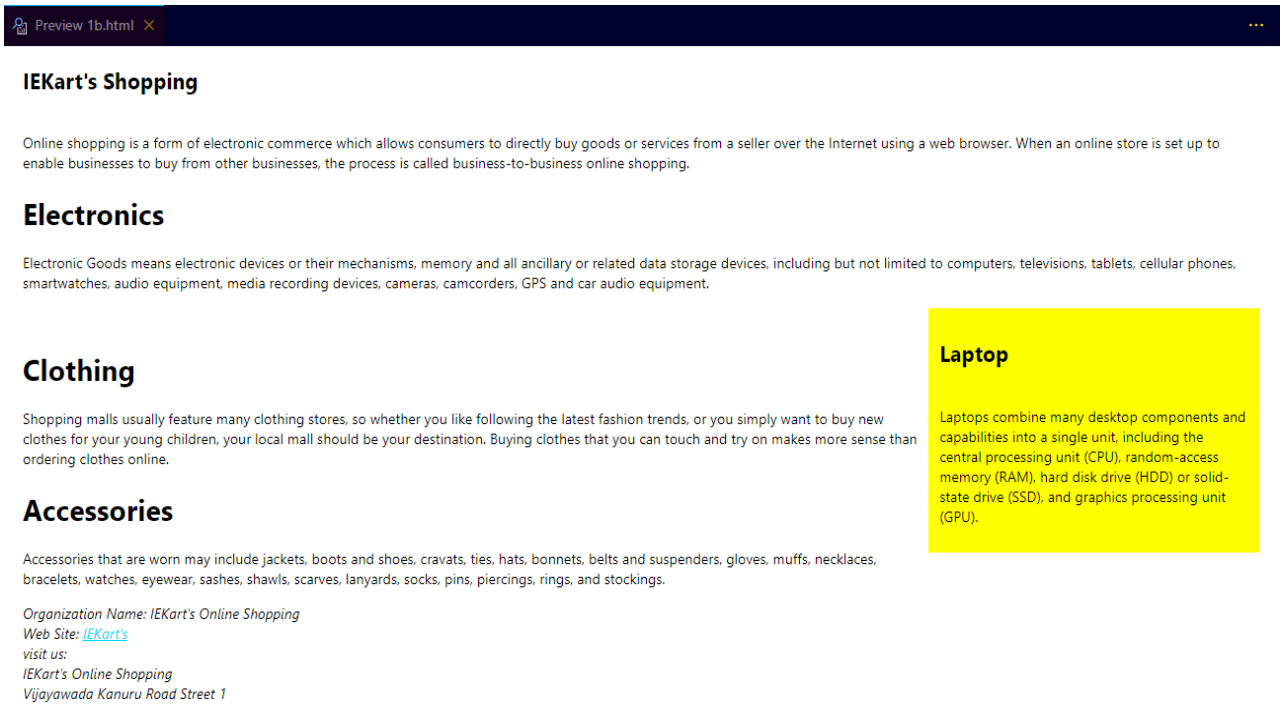
Address :- The <address> HTML element indicates that the enclosed HTML provides contact information for a person or people, or for an organization.

Program :-

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="UTF-8">
  <meta name="description" content="IEKart's 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="onlineshopping,IEKarts">
  <meta name="author" content="Murtuza">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>
<article>
        <p><h1>IEKart's Shopping</h1></br> Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. When an online store is set up to enable businesses to buy from other businesses, the process is called business-to-business online shopping.</p>
</article>


<h1>Electronics</h1>
            <p>Electronic Goods means electronic devices or their mechanisms, memory and all ancillary or related data storage devices, including but not limited to computers, televisions, tablets, cellular phones, smartwatches, audio equipment, media recording devices, cameras, camcorders, GPS and car audio equipment.</p>
```

```
<aside style ="width: 25%; float: right; padding: 10px;background-color : yellow;">
        <p><h1>Laptop</h1></br>Laptops combine many desktop components and capabilities into a single unit, including the central processing unit (CPU), random-access memory (RAM), hard disk drive (HDD) or solid-state drive (SSD), and graphics processing unit (GPU).</p>
</aside></br>
<h1>Clothing</h1>
        <p>Shopping malls usually feature many clothing stores, so whether you like following the latest fashion trends, or you simply want to buy new clothes for your young children, your local mall should be your destination. Buying clothes that you can touch and try on makes more sense than ordering clothes online.</p>
<h1>Accessories</h1>
        <p>Accessories that are worn may include jackets, boots and shoes, cravats, ties, hats, bonnets, belts and suspenders, gloves, muffs, necklaces, bracelets, watches, eyewear, sashes, shawls, scarves, lanyards, socks, pins, piercings, rings, and stockings.</p>

<address>
        Organization Name: IEKart's Online Shopping <br>
        Web Site:
        <a href="">
        IEKart's</a><br>
        visit us:<br>
        IEKart's Online Shopping<br>
        Vijayawada Kanuru Road Street 1 <br>
</address>
</body>
</html>
```

Output :-



Exercise 1.c

Aim :-Make use of appropriate grouping elements such as list items to "About Us" page of IEKart's Shopping Application

Procedure : -

The Types Of List Elements Are :-
1.Ordered List
2.Unordered List
3.Description List

1.Ordered List
An ordered list starts with the <ol> tag. Each list item starts with the <li> tag.The list items will be marked with numbers by default

2.Unordered List
An unordered list starts with the <ul> tag. Each list item starts with the <li> tag.The list items will be marked with bullets (small black circles) by default:

3.Description List
HTML also supports description lists.A description list is a list of terms, with a description of each term.The <dl> tag defines the description list, the <dt> tag defines the term (name), and the <dd> tag describes each term:

Program :-

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="UTF-8">
  <meta name="description" content="IEKart's 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="onlineshopping,IEKarts">
  <meta name="author" content="Kishore">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>
<article>
        <p><h1>IEKart's Shopping</h1></br> Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. When an online store is set up to enable businesses to buy from other businesses, the process is called business-to-business online shopping.</p>
</article>


<h1>Electronics</h1>
```

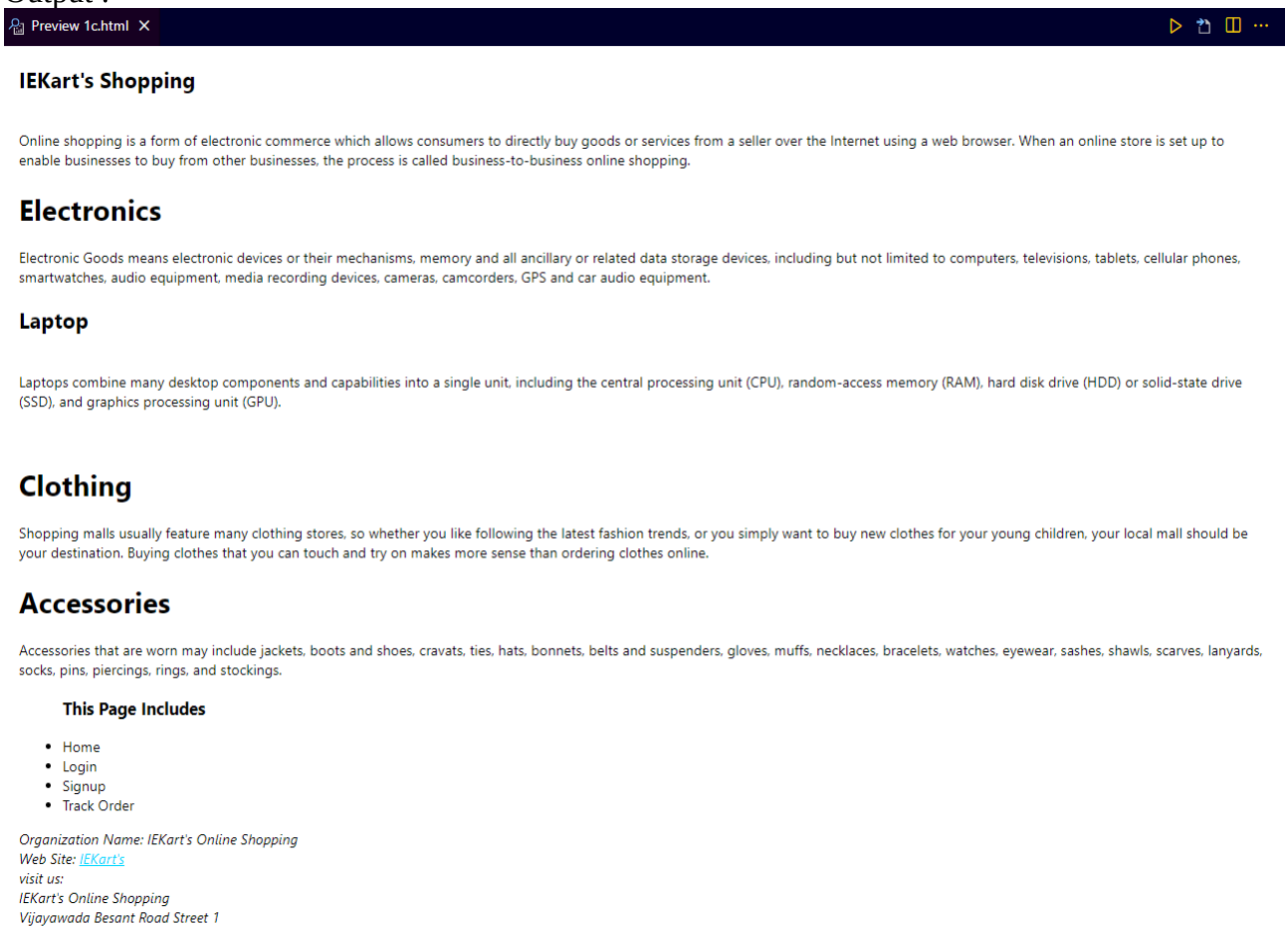
Electronic Goods means electronic devices or their mechanisms, memory and all ancillary or related data storage devices, including but not limited to computers, televisions, tablets, cellular phones, smartwatches, audio equipment, media recording devices, cameras, camcorders, GPS and car audio equipment.
<aside >
<h1>Laptop</h1></br>Laptops combine many desktop components and capabilities into a single unit, including the central processing unit (CPU), random-access memory (RAM), hard disk drive (HDD) or solid-state drive (SSD), and graphics processing unit (GPU).
</aside></br>
<h1>Clothing</h1>
Shopping malls usually feature many clothing stores, so whether you like following the latest fashion trends, or you simply want to buy new clothes for your young children, your local mall should be your destination. Buying clothes that you can touch and try on makes more sense than ordering clothes online.
<h1>Accessories</h1>
Accessories that are worn may include jackets, boots and shoes, cravats, ties, hats, bonnets, belts and suspenders, gloves, muffs, necklaces, bracelets, watches, eyewear, sashes, shawls, scarves, lanyards, socks, pins, piercings, rings, and stockings.

<h3>This Page Includes</h3>
Home
Login
Signup
Track Order

<address>
Organization Name: IEKart's Online Shopping
Web Site:

IEKart's
visit us:
IEKart's Online Shopping
Vijayawada Besant Road Street 1
</address>
</body>
</html>

Output :-


Preview 1c.html
IEKart's Shopping
Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. When an online store is set up to enable businesses to buy from other businesses, the process is called business-to-business online shopping.
Electronics
Electronic Goods means electronic devices or their mechanisms, memory and all ancillary or related data storage devices, including but not limited to computers, televisions, tablets, cellular phones, smartwatches, audio equipment, media recording devices, cameras, camcorders, GPS and car audio equipment.
Laptop
Laptops combine many desktop components and capabilities into a single unit, including the central processing unit (CPU), random-access memory (RAM), hard disk drive (HDD) or solid-state drive (SSD), and graphics processing unit (GPU).
Clothing
Shopping malls usually feature many clothing stores, so whether you like following the latest fashion trends, or you simply want to buy new clothes for your young children, your local mall should be your destination. Buying clothes that you can touch and try on makes more sense than ordering clothes online.
Accessories
Accessories that are worn may include jackets, boots and shoes, cravats, ties, hats, bonnets, belts and suspenders, gloves, muffs, necklaces, bracelets, watches, eyewear, sashes, shawls, scarves, lanyards, socks, pins, piercings, rings, and stockings.
This Page Includes
Home
Login
Signup
Track Order
Organization Name: IEKart's Online Shopping
Web Site: IEKart's
visit us:
IEKart's Online Shopping
Vijayawada Besant Road Street 1

Exercise 1.d

Aim :-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.

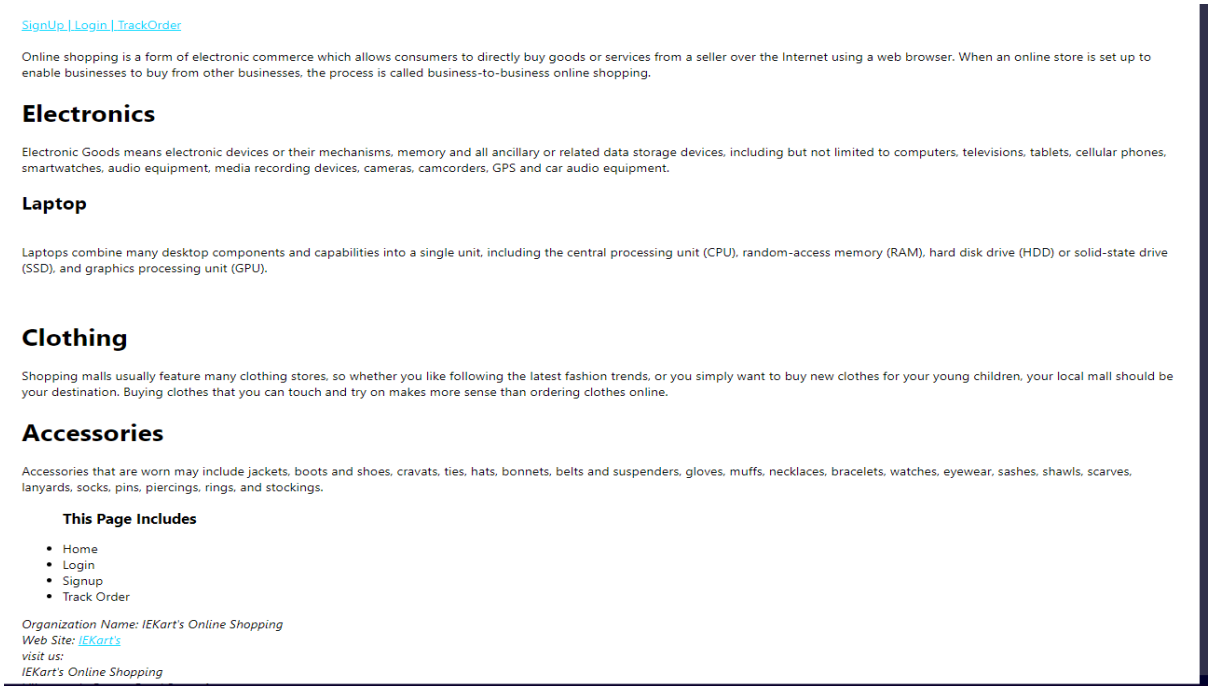
Program :-

HOMEPAGE:

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="UTF-8">
  <meta name="description" content="IEKart's 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="onlineshopping,IEKarts">
  <meta name="author" >
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>
<article>
      <p><h1 align="center">IEKart's Shopping</h1></br><a href="SignUp.html">SignUp | </a><a href="Login.html">Login | </a><a href="TrackOrder.html">TrackOrder</a><br><br> Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. When an online store is set up to enable businesses to buy from other businesses, the process is called business-to-business online shopping.</p>
</article>


<h1>Electronics</h1>
        <p>Electronic Goods means electronic devices or their mechanisms, memory and all ancillary or related data storage devices, including but not limited to computers, televisions, tablets, cellular phones, smartwatches, audio equipment, media recording devices, cameras, camcorders, GPS and car audio equipment.</p>
<aside >
      <p><h1>Laptop</h1></br>Laptops combine many desktop components and capabilities into a single unit, including the central processing unit (CPU), random-access memory (RAM), hard disk drive (HDD) or solid-state drive (SSD), and graphics processing unit (GPU).</p>
</aside></br>
<h1>Clothing</h1>
        <p>Shopping malls usually feature many clothing stores, so whether you like following the latest fashion trends, or you simply want to buy new clothes for your young children, your local mall should be your destination. Buying clothes that you can touch and try on makes more sense than ordering clothes online.</p>
<h1>Accessories</h1>
```

Accessories that are worn may include jackets, boots and shoes, cravats, ties, hats, bonnets, belts and suspenders, gloves, muffs, necklaces, bracelets, watches, eyewear, sashes, shawls, scarves, lanyards, socks, pins, piercings, rings, and stockings.

```
<div>
<ul>
<h3>This Page Includes</h3>
<li>Home</li>
<li>Login</li>
<li>Signup</li>
<li>Track Order</li>
</ul>
</div>
<address>
    Organization Name: IEKart's Online Shopping <br>
    Web Site:
    <a href="">
    IEKart's</a><br>
    visit us:<br>
    IEKart's Online Shopping<br>
    Vijayawada Besant Road Street 1 <br>
</address>
</body>
</html>
```



SignUp | Login | TrackOrder

Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. When an online store is set up to enable businesses to buy from other businesses, the process is called business-to-business online shopping.

Electronics

Electronic Goods means electronic devices or their mechanisms, memory and all ancillary or related data storage devices, including but not limited to computers, televisions, tablets, cellular phones, smartwatches, audio equipment, media recording devices, cameras, camcorders, GPS and car audio equipment.

Laptop

Laptops combine many desktop components and capabilities into a single unit, including the central processing unit (CPU), random-access memory (RAM), hard disk drive (HDD) or solid-state drive (SSD), and graphics processing unit (GPU).

Clothing

Shopping malls usually feature many clothing stores, so whether you like following the latest fashion trends, or you simply want to buy new clothes for your young children, your local mall should be your destination. Buying clothes that you can touch and try on makes more sense than ordering clothes online.

Accessories

Accessories that are worn may include jackets, boots and shoes, cravats, ties, hats, bonnets, belts and suspenders, gloves, muffs, necklaces, bracelets, watches, eyewear, sashes, shawls, scarves, lanyards, socks, pins, piercings, rings, and stockings.

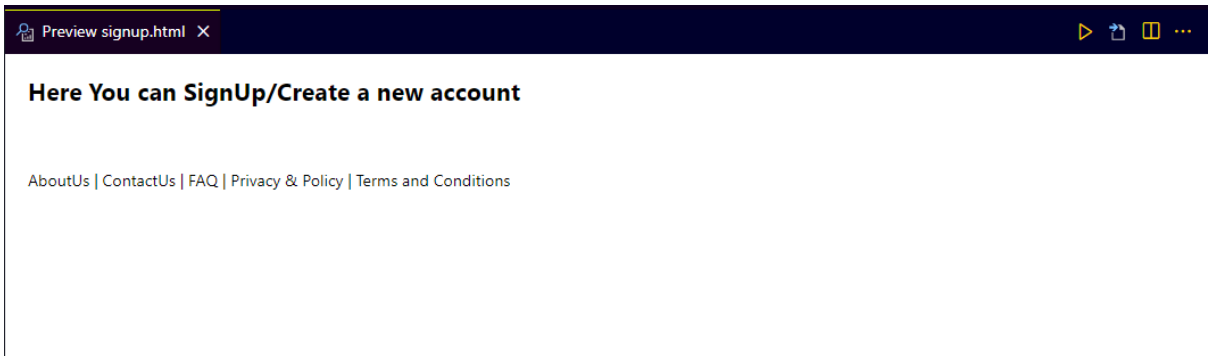
This Page Includes

- Home
- Login
- Signup
- Track Order

Organization Name: IEKart's Online Shopping
Web Site: IEKart's
visit us:
IEKart's Online Shopping

SIGNUP page:

```
<html>
<head><title>SignUp</title></head>
<body bgcolor="powderblue">
<h2>Here You can SignUp/Create a new account </h2>


<footer><br><br>
        AboutUs | ContactUs | FAQ | Privacy & Policy | Terms and Conditions
                </footer>
</body>
</html>
```

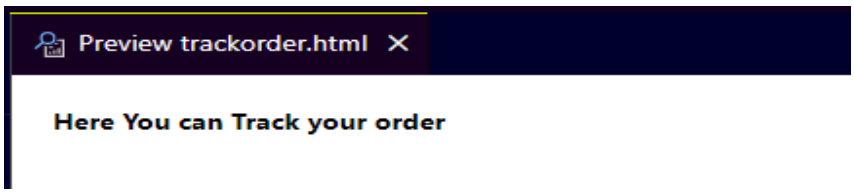


LOGIN PAGE:

```
<html>
<head><title>Login </title></head>
<body bgcolor="#73f3ff">
Here You can login to your account
</body>
</html>
```

TRACKORDER:

```
<html>
<head><title>TrackOrder </title></head>
<body>
Here You can Track your order
</body>
</html>
```



Exercise 1.e

Aim: Add the © symbol in the Home page footer of IEKart's Shopping application.

Procedure:

Use © to print the copyright code

Program:

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="UTF-8">
  <meta name="description" content="IEKart's 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="onlineshopping,IEKarts">
  <meta name="author" content="Kishore">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>
<article>
        <p><h1 align="center">IEKart's Shopping</h1></br><a href="SignUp.html">SignUp | </a><a href="Login.html">Login | </a><a href="TrackOrder.html">TrackOrder</a><br><br> Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. When an online store is set up to enable businesses to buy from other businesses, the process is called business-to-business online shopping.</p>
      </article>
<h1>Electronics</h1>
```

Electronic Goods means electronic devices or their mechanisms, memory and all ancillary or related data storage devices, including but not limited to computers, televisions, tablets, cellular phones, smartwatches, audio equipment, media recording devices, cameras, camcorders, GPS and car audio equipment.

<aside >

<h1>Laptop</h1></br>Laptops combine many desktop components and capabilities into a single unit, including the central processing unit (CPU), random-access memory (RAM), hard disk drive (HDD) or solid-state drive (SSD), and graphics processing unit (GPU).

</aside></br>

<h1>Clothing</h1>

Shopping malls usually feature many clothing stores, so whether you like following the latest fashion trends, or you simply want to buy new clothes for your young children, your local mall should be your destination. Buying clothes that you can touch and try on makes more sense than ordering clothes online.

<h1>Accessories</h1>

Accessories that are worn may include jackets, boots and shoes, cravats, ties, hats, bonnets, belts and suspenders, gloves, muffs, necklaces, bracelets, watches, eyewear, sashes, shawls, scarves, lanyards, socks, pins, piercings, rings, and stockings.

<h3>This Page Includes</h3>

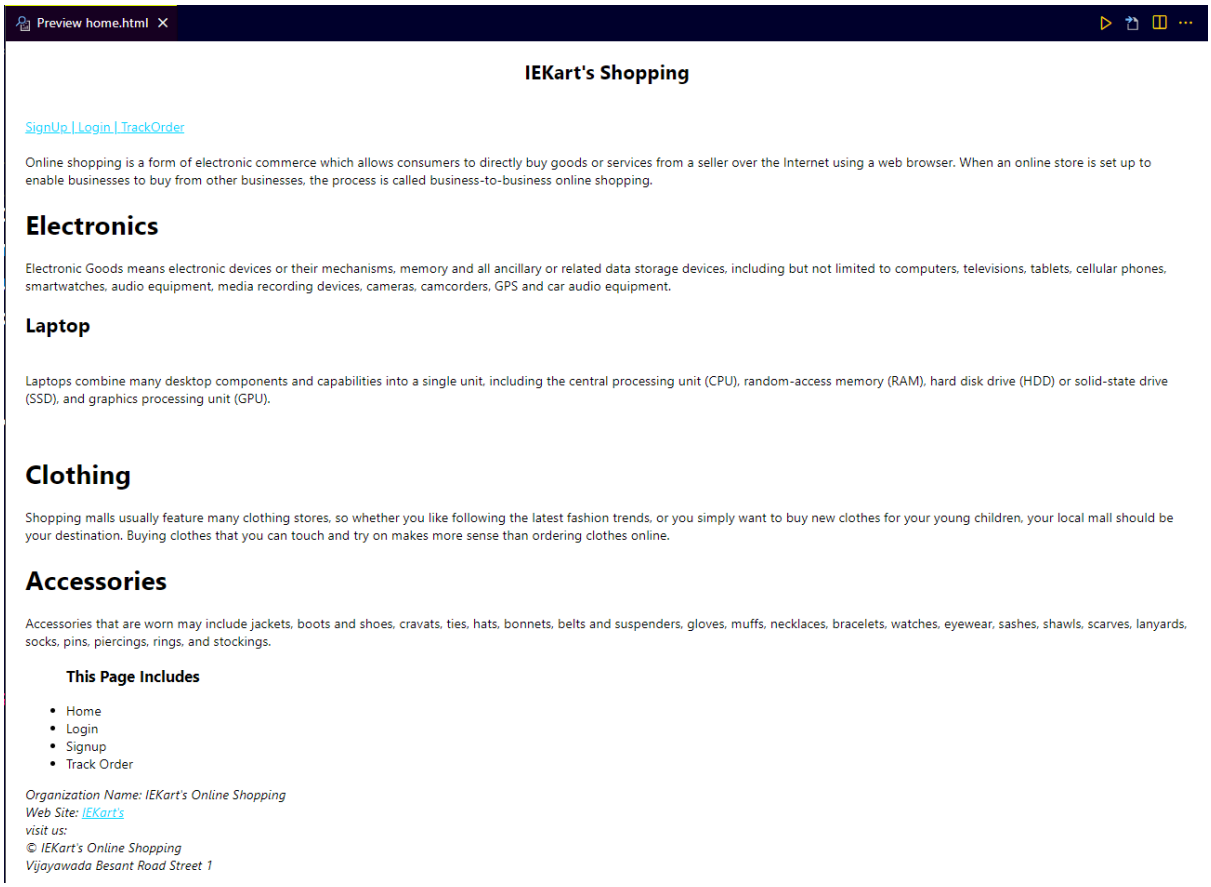
Home

Login

Signup

Track Order


```
</div>
<address>
    Organization Name: IEKart's Online Shopping <br>
    Web Site:
    <a href="">
    IEKart's</a><br>
    visit us:<br>
    &copy; IEKart's Online Shopping<br>
    Vijayawada Besant Road Street 1 <br>
</address>
</body>
</html>
```



Exercise 1.f

Aim :-Add the global attributes such as contenteditable, spellcheck, id etc. to enhance the Signup Page functionality of IEKart's Shopping application.

Procedure :-

Content Editable :-

The contenteditable attribute specifies whether the content of an element is editable or not.

Syntax :-

<*element* contenteditable="true|false">

Spell Check :-

The spellcheck attribute specifies whether the element is to have its spelling and grammar checked or not.

The following can be spell checked:

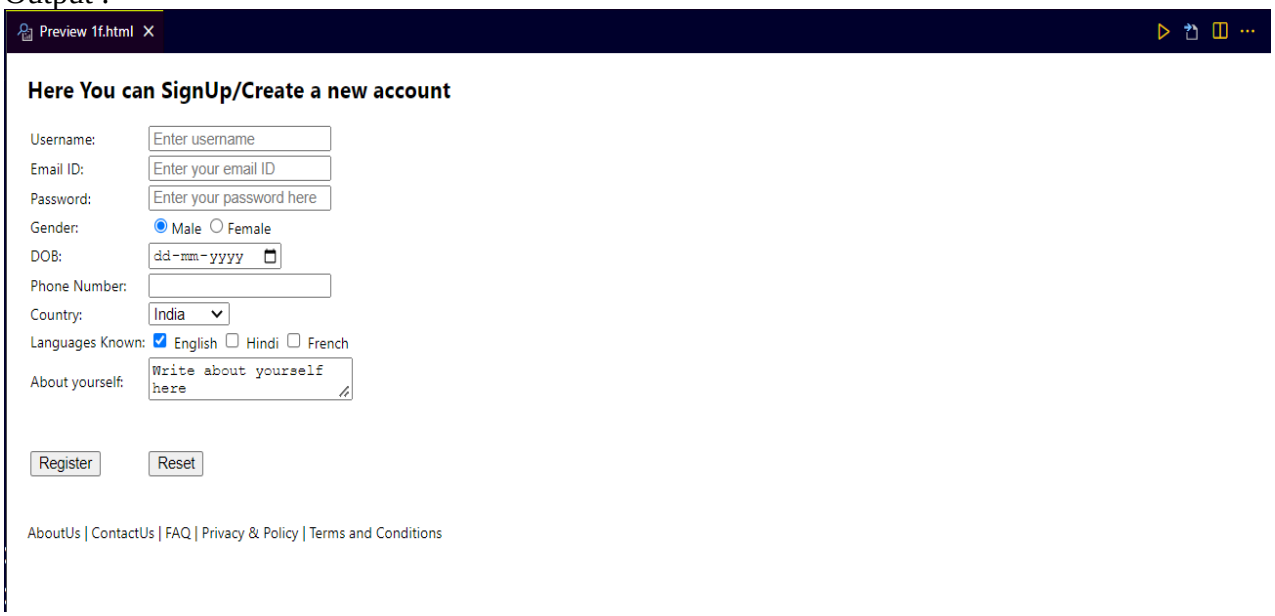
- Text values in input elements (not password)
- Text in <textarea> elements
- Text in editable elements

Program :-

```
<html>
<head><title>SignUp</title></head>
<body bgcolor="powderblue">
<h2>Here You can SignUp/Create a new account </h2>
<table>
  <tr><td>Username:</td>
     <td><input type="text" placeholder="Enter username">
    </tr>
  <tr><td>Email ID:</td>
     <td><input type="email" placeholder="Enter your email ID"></tr>
  <tr><td>Password: </td>
     <td><input type="password" placeholder="Enter your password here"></tr>
  <tr><td><label for="gender">Gender:</label></td>
     <td><input type="radio" name="gender" value="M" checked>Male <input type="radio"
name="gender" value="F">Female
  <tr>
          <td><label for="dob">DOB:</label></td>
          <td><input type="date" id="dob" required /></td>
                </tr>
  <tr>
          <td><label for="phone_no">Phone Number:</label></td>
          <td><input type="text" id="phone_no" pattern="+ [0-9] {12}" /></td>
                </tr>
  <tr>
                    <td><label for="country">Country:</label></td>
                    <td><select id="country" placeholder="Select your country">
                          <option value="India" />India
```

```
                    <option value="India" />USA
                    <option value="India" />UK
                    <option value="India" />Canada
                    <option value="India" />Belgium
                    <option value="India" />France </select></td>
                </tr>
  <tr>
        <td><label id="language">Languages Known:</label></td>
        <td><input type="checkbox" name="language" id="english" value="English"
checked="checked" /><label for="english">
            English </label> <input type="checkbox" name="language" id="hindi"
value="Hindi" /><label for="hindi"> Hindi
          </label> <input type="checkbox" name="language" id="french" value="French"
/><label for="french"> French </label></td>
                </tr>
   <tr>
                <td><label for="yourself" dir="ltr">About yourself:</label></td>
          <td><textarea contenteditable="false" spellcheck="true" >Write about yourself
here</textarea></td>

                </tr>
  <tr>
    <td><br><br><input type="submit" value="Register"></td>
    <td><br><br><input type="reset" ></td>
  </tr>
</table>
<footer><br><br>
  AboutUs | ContactUs | FAQ | Privacy & Policy | Terms and Conditions
    </footer>
</body>
</html>
```

Output :-



Exercise 2 a

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

Procedure :-

Table :-

HTML table tag is used to display data in tabular form (row * column). There can be many columns in a row.

We can create a table to display data in tabular form, using <table> element, with the help of <tr> , <td>, and <th> elements.

In Each table, table row is defined by <tr> tag, table header is defined by <th>, and table data is defined by <td> tags.

HTML tables are used to manage the layout of the page e.g. header section, navigation bar, body content, footer section etc. But it is recommended to use a div tag over the table to manage the layout of the page .

<table>	It defines a table.
<tr>	It defines a row in a table.
<th>	It defines a header cell in a table.
<td>	It defines a cell in a table.
<caption>	It defines the table caption.
<colgroup>	It specifies a group of one or more columns in a table for formatting.
<col>	It is used with <colgroup> element to specify column properties for each column.

<tbody>	It is used to group the body content in a table.
<thead>	It is used to group the header content in a table.
<tfooter>	It is used to group the footer content in a table.

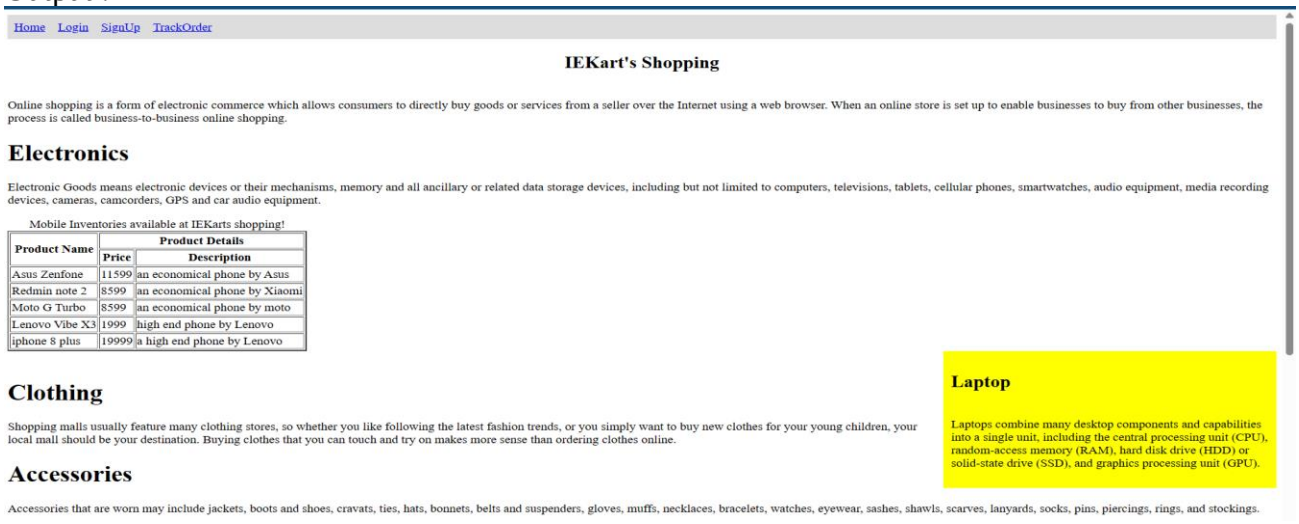
Program :-

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="UTF-8">
  <meta name="description" content="IEKart's 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="onlineshopping,IEKarts">
  <meta name="author" content="Kishore">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
<style>
ul {
  list-style-type: none;
  margin: 0;
  padding: 0;
  overflow: hidden;
  background-color: #dddddd;
}

li {
  float: left;
}

li a {
  display: block;
  padding: 8px;
}
</style>
</head>
<body>
<ul>
```

```
  <li><a href="1c.html">Home</a></li>
  <li><a href="login.html">Login</a></li>
  <li><a href="signup.html">SignUp</a></li>
  <li><a  href="trackorder.html">TrackOrder</a></li>
</ul>
<article>
        <p><h1 style=text-align:center;> IEKart's Shopping</h1></br> Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. When an online store is set up to enable businesses to buy from other businesses, the process is called business-to-business online shopping.</p>
</article>
<h1>Electronics</h1>
<p>Electronic Goods means electronic devices or their mechanisms, memory and all ancillary or related data storage devices, including but not limited to computers, televisions, tablets, cellular phones, smartwatches, audio equipment, media recording devices, cameras, camcorders, GPS and car audio equipment.</p>
<div> <table  border="2" >
<caption>Mobile Inventories available at IEKarts shopping!</caption>
<tr ><th rowspan="2">Product Name</th>
   <th colspan="2">Product Details</th>
</tr>
<tr><th>Price </th>
   <th>Description</th>
</tr>
<tr><td>Asus Zenfone</td><td>11599</td><td>an economical phone by Asus</td>
</tr>
<tr><td>Redmin note 2</td><td>8599</td><td>an economical phone by Xiaomi</td></tr>
<tr><td>Moto G Turbo</td><td>8599</td><td>an economical phone by moto</td></tr>
<tr><td>Lenovo Vibe X3</td><td>1999</td><td>high end phone by Lenovo</td></tr>
<tr><td>iphone 8 plus</td><td>19999</td><td>a high end phone by Lenovo</td></tr>
</table>
</div>
<aside style ="width: 25%; float: right; padding: 10px;background-color : yellow;">
<p><h1>Laptop</h1></br>Laptops combine many desktop components and capabilities into a single unit, including the central processing unit (CPU), random-access memory (RAM), hard disk drive (HDD) or solid-state drive (SSD), and graphics processing unit (GPU).</p>
</aside></br>
<h1>Clothing</h1>
        <p>Shopping malls usually feature many clothing stores, so whether you like following the latest fashion trends, or you simply want to buy new clothes for your young children, your local mall should be your destination. Buying clothes that you can touch and try on makes more sense than ordering clothes online.</p>
<h1>Accessories</h1>
<p>Accessories that are worn may include jackets, boots and shoes, cravats, ties, hats, bonnets, belts and suspenders, gloves, muffs, necklaces, bracelets, watches, eyewear, sashes, shawls, scarves, lanyards, socks, pins, piercings, rings, and stockings.</p>
<div>
```

```
<h3> About </h3>
<dl>
  <dt>About Page</dt>
  <dd>Here page details are included</dd>
</dl>
<ol>
<h3>Page Created By </h3>
<li>Tarak</li>
<li>Satya</li>
<li>Amigos</li>
</ol>
<ul>
<h3>This Page Includes</h3>
<li>Home</li>
<li>Login</li>
<li>Signup</li>
<li>Track Order</li>
</ul>
</div>
<footer>
<address>
        Organization Name: IEKart's Online Shopping <br>
        Web Site:
        <a href="">
        IEKart's</a><br>
        visit us:<br>
        IEKart's Online Shopping<br>
        Vijayawada Besant Road Street 1 <br>
        <h2>IEKarts’s &copy;</h2>
</address></footer>
</body>
</html>
```

Output :-



Exercise 2b

Aim :-Add the global attributes such as contenteditable, spellcheck, id etc. to enhance the Signup Page functionality of IEKart's Shopping application.

Procedure :-

Input : -

One of the most used form elements is the <input> element.
The <input> element can be displayed in several ways, depending on the type attribute.

- <input type="button">
- <input type="checkbox">
- <input type="color">
- <input type="date">
- <input type="datetime-local">
- <input type="email">
- <input type="file">
- <input type="hidden">
- <input type="image">
- <input type="month">
- <input type="number">
- <input type="password">
- <input type="radio">
- <input type="range">
- <input type="reset">
- <input type="search">
- <input type="submit">
- <input type="tel">
- <input type="text">
- <input type="time">
- <input type="url">
- <input type="week">

Label :-

The <label> element defines a label for several form elements.
The <label> element is useful for screen-reader users, because the screen-reader will read out loud the label when the user focus on the input element.
The <label> element also help users who have difficulty clicking on very small regions (such as radio buttons or checkboxes) - because when the user clicks the text within the <label> element, it toggles the radio button/checkbox.
The for attribute of the <label> tag should be equal to the id attribute of the <input> element to bind them together.

Select :-

The <select> element defines a drop-down list

Option :-

The <option> defines an option that can be selected.
By default, the first item in the drop-down list is selected.
To define a pre-selected option, add the selected attribute to the option:

Textarea :-

The <textarea> element defines a multi-line input field (a text area):

Button :-

The <button> element defines a clickable button

Fieldset And Legend :-

The <fieldset> element is used to group related data in a form.
The <legend> element defines a caption for the <fieldset> element.

Datalist :-

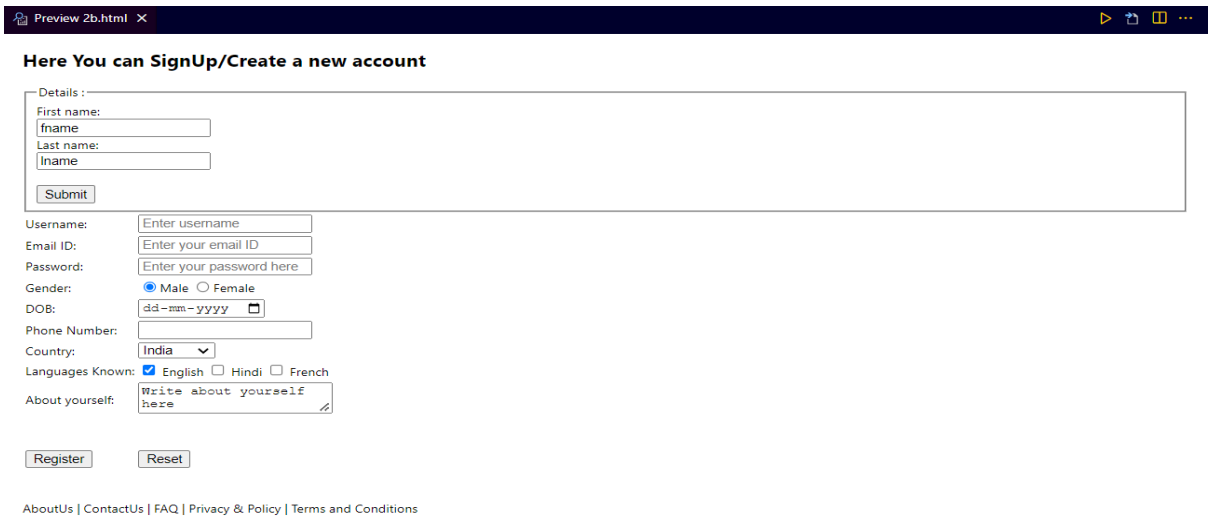
The <datalist> element specifies a list of pre-defined options for an <input> element.
Users will see a drop-down list of the pre-defined options as they input data.
The list attribute of the <input> element, must refer to the id attribute of the <datalist> element.

Program :-

```
<html>
<head><title>SignUp</title></head>
<body bgcolor="powderblue">
<h2>Here You can SignUp/Create a new account </h2>
 <form action="/action_page.php">
  <fieldset>
    <legend>Details :</legend>
    <label for="fname">First name:</label><br>
    <input type="text" id="fname" name="fname" value="fname"><br>
    <label for="lname">Last name:</label><br>
    <input type="text" id="lname" name="lname" value="lname"><br><br>
    <input type="submit" value="Submit">
  </fieldset>
</form>
<table>
  <tr><td>Username:</td>
      <td><input type="text" placeholder="Enter username">
    </tr>

  <tr><td>Email ID:</td>
      <td><input type="email" placeholder="Enter your email ID"></tr>
  <tr><td>Password: </td>
      <td><input type="password" placeholder="Enter your password here"></tr>
  <tr><td><label for="gender">Gender:</label></td>
      <td><input type="radio" name="gender" value="M" checked>Male <input type="radio"
name="gender" value="F">Female
  <tr>
          <td><label for="dob">DOB:</label></td>
          <td><input type="date" id="dob" required /></td>
                </tr>
  <tr>
          <td><label for="phone_no">Phone Number:</label></td>
          <td><input type="text" id="phone_no" pattern="+ [0-9] {12}" /></td>
                </tr>
  <tr>
                    <td><label for="country">Country:</label></td>
```

```
                <td><select id="country" placeholder="Select your country">
                    <option value="India" />India
                    <option value="India" />USA
                    <option value="India" />UK
                    <option value="India" />Canada
                    <option value="India" />Belgium
                    <option value="India" />France </select></td>
                </tr>
  <tr>
        <td><label id="language">Languages Known:</label></td>
        <td><input type="checkbox" name="language" id="english" value="English"
checked="checked" /><label for="english">
            English </label> <input type="checkbox" name="language" id="hindi"
value="Hindi" /><label for="hindi"> Hindi
          </label> <input type="checkbox" name="language" id="french" value="French"
/><label for="french"> French </label></td>
                </tr>
   <tr>
                <td><label for="yourself" dir="ltr">About yourself:</label></td>
                <td><textarea contenteditable="false" spellcheck="true" >Write about
yourself here</textarea></td>

                </tr>
  <tr>
    <td><br><br><input type="submit" value="Register"></td>
    <td><br><br><input type="reset" ></td>
  </tr>
</table>
<footer><br><br>
  AboutUs | ContactUs | FAQ | Privacy & Policy | Terms and Conditions
    </footer>
</body>
</html>
```

Output :-



Exercise 2c

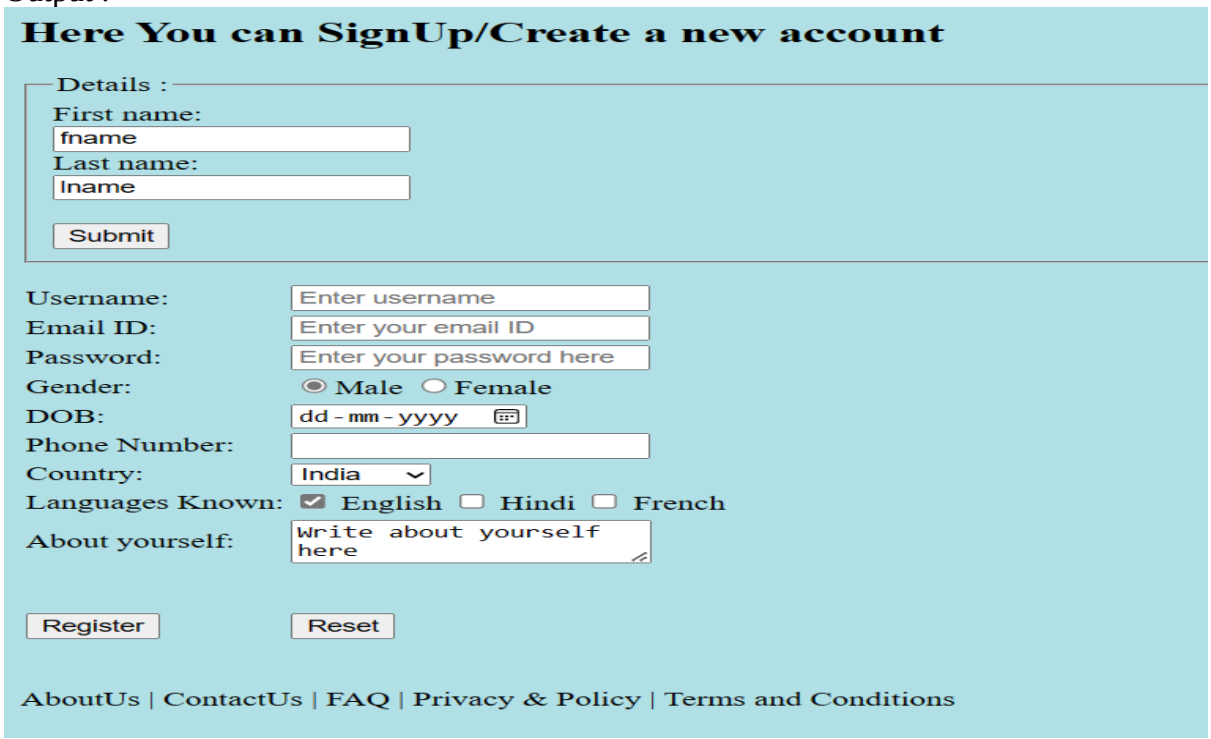
Aim :-Enhance Signup page functionality of IEKart's Shopping application by adding attributes to input elements.

Program :-

```
<html>
<head><title>SignUp</title></head>
<body bgcolor="powderblue">
<h2>Here You can SignUp/Create a new account </h2>
 <form action="/action_page.php">
  <fieldset>
    <legend>Details :</legend>
    <label for="fname">First name:</label><br>
    <input type="text" id="fname" name="fname" value="fname"><br>
    <label for="lname">Last name:</label><br>
    <input type="text" id="lname" name="lname" value="lname"><br><br>
    <input type="submit" value="Submit">
  </fieldset>
</form>
<table>
  <tr><td>Username:</td>
      <td><input type="text" placeholder="Enter username">
    </tr>

  <tr><td>Email ID:</td>
      <td><input type="email" placeholder="Enter your email ID"></tr>
  <tr><td>Password: </td>
      <td><input type="password" placeholder="Enter your password here"></tr>
  <tr><td><label for="gender">Gender:</label></td>
      <td><input type="radio" name="gender" value="M" checked>Male <input type="radio"
name="gender" value="F">Female
  <tr>
          <td><label for="dob">DOB:</label></td>
          <td><input type="date" id="dob" required /></td>
                </tr>
  <tr>
          <td><label for="phone_no">Phone Number:</label></td>
          <td><input type="text" id="phone_no" pattern="+ [0-9] {12}" /></td>
                </tr>
  <tr>
                    <td><label for="country">Country:</label></td>
                    <td><select id="country" placeholder="Select your country">
                          <option value="India" />India
                          <option value="India" />USA
                          <option value="India" />UK
                          <option value="India" />Canada
                          <option value="India" />Belgium
                          <option value="India" />France </select></td>
```

```
                </tr>
  <tr>
          <td><label id="language">Languages Known:</label></td>
          <td><input type="checkbox" name="language" id="english" value="English"
checked="checked" /><label for="english">
                English </label> <input type="checkbox" name="language" id="hindi"
value="Hindi" /><label for="hindi"> Hindi
             </label> <input type="checkbox" name="language" id="french" value="French"
/><label for="french"> French </label></td>
                </tr>
   <tr>
                    <td><label for="yourself" dir="ltr">About yourself:</label></td>
                    <td><textarea contenteditable="false" spellcheck="true" >Write about
yourself here</textarea></td>

                </tr>
  <tr>
    <td><br><br><input type="submit" value="Register"></td>
    <td><br><br><input type="reset" ></td>
  </tr>
</table>
<footer><br><br>
  AboutUs | ContactUs | FAQ | Privacy & Policy | Terms and Conditions
    </footer>
</body>
</html>
```

Output :-



Exercise 2.D

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

Procedure:
The HTML <iframe> tag specifies an inline frame. An inline frame is used to embed another document within the current HTML document.
<iframe src="*url*" title="*description*"></iframe>

Iframe - Set Height and Width::Use the height and width attributes to specify the size of the iframe.The height and width are specified in pixels by default:
<iframe src="demo_iframe.htm" height="200" width="300" title="Iframe Example"></iframe>

HTML5 introduced 5 most popular media element tags i.e. **<audio>, <video>, <source>, <embed>, <track>.** This media element tags changed the entire development using HTML.
In this article, you will get to know about these five media element tags briefly.

Media Tags:

- **<audio>:** It is an inline element that is used to embed sound files into a web page.
- **<video>:** It is used to embed video files into a web page.
- **<source>**: It is used to attach multimedia files like audio, video, and pictures.
- **<embed>:** It is used for embedding external applications which are generally multimedia content like audio or video into an HTML document.
- **<track>:** It specifies text tracks for media components audio and video.

Program:

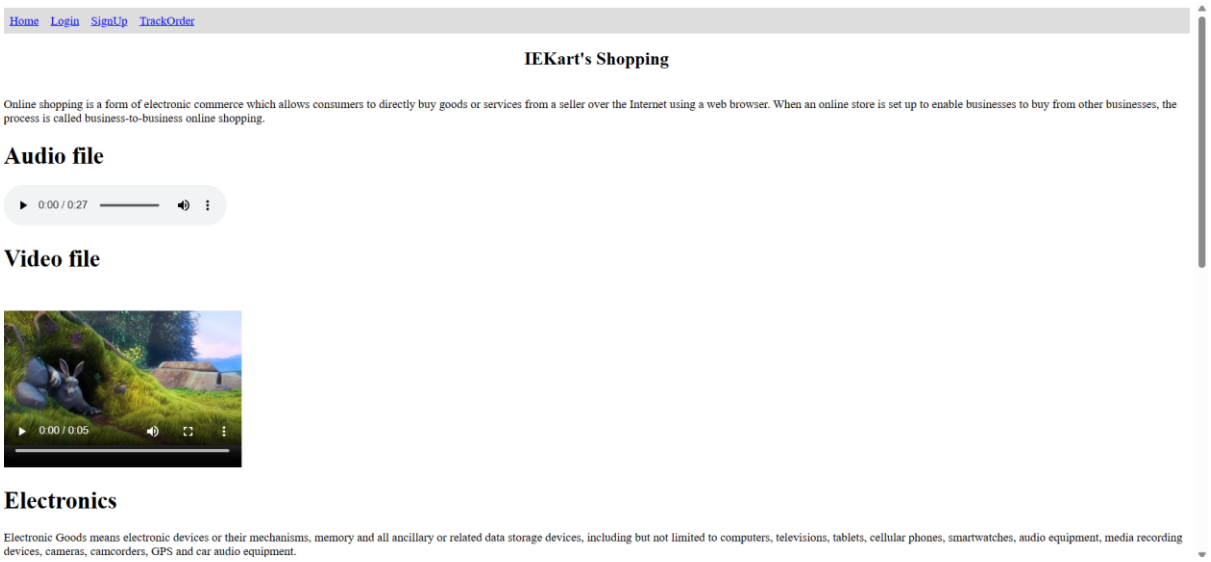
```
<!DOCTYPE html>
<html>
<head>
  <meta charset="UTF-8">
  <meta name="description" content="IEKart's is an online shopping website that sells goods in retail. This company deals with various categories like Electronics, Clothing, Accessories etc.">
  <meta name="keywords" content="onlineshopping,IEKarts">
  <meta name="author" content="Kishore">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
<style>
ul {
  list-style-type: none;
  margin: 0;
  padding: 0;
```

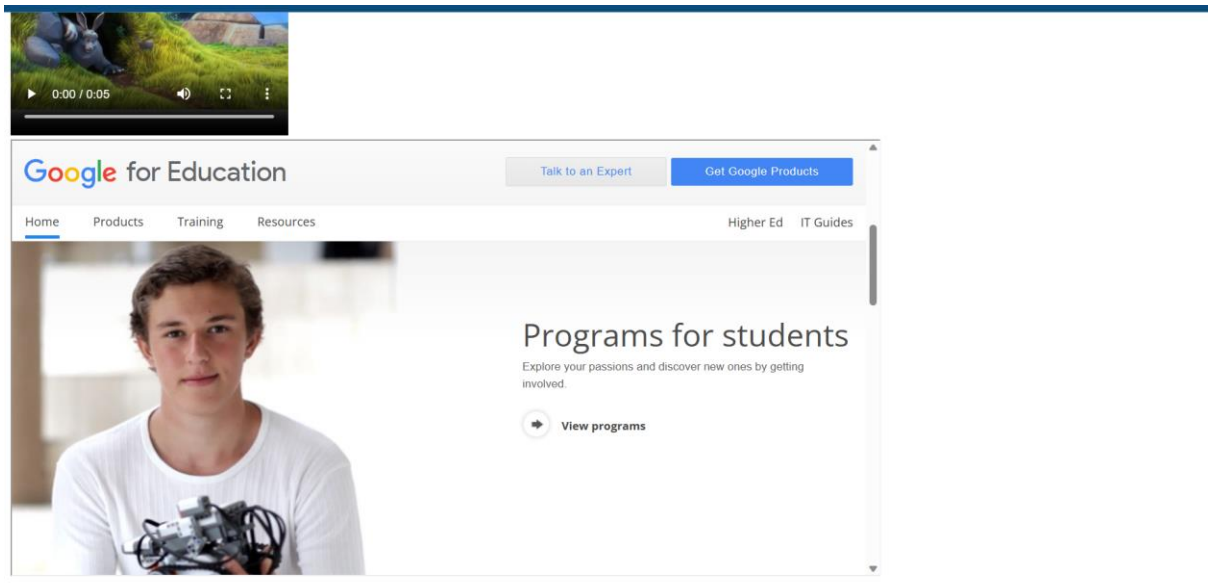
```
  overflow: hidden;
  background-color: #dddddd;
}
li {
  float: left;
}
li a {
  display: block;
  padding: 8px;
}
</style>
</head>
<body>
<ul>
  <li><a href="1c.html">Home</a></li>
  <li><a href="login.html">Login</a></li>
  <li><a href="signup.html">SignUp</a></li>
  <li><a  href="trackorder.html">TrackOrder</a></li>
</ul>
<article>
        <p><h1 style=text-align:center;> IEKart's Shopping</h1></br> Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. When an online store is set up to enable businesses to buy from other businesses, the process is called business-to-business online shopping.</p>
</article>
<h1>Audio file</h1>

<audio controls autoplay >
  <source src="./Sample.mp3" type="audio/mpeg">
Your browser does not support the audio element.
</audio>
<h1>Video file</h1>

<video width="320" height="240" controls>
  <source src="./Samplevideo.mp4" type="video/mp4">
  Your browser does not support the video tag.
</video><br>
<iframe src="https://edu.google.co.in/students/" height="500" width="1000" title="Google for Education"></iframe>
<h1>Electronics</h1>

<p>Electronic Goods means electronic devices or their mechanisms, memory and all ancillary or related data storage devices, including but not limited to computers, televisions, tablets, cellular phones, smartwatches, audio equipment, media recording devices, cameras, camcorders, GPS and car audio equipment.</p>
<div> <table  border="2" >
<caption>Mobile Inventories available at IEKarts shopping!</caption>
<tr ><th rowspan="2">Product Name</th>
    <th colspan="2">Product Details</th>
```

```
</tr>
<tr><th>Price </th>
   <th>Description</th>
</tr>
<tr><td>Asus Zenfone</td><td>11599</td><td>an economical phone by Asus</td>
</tr>
<tr><td>Redmin note 2</td><td>8599</td><td>an economical phone by Xiaomi</td></tr>
<tr><td>Moto G Turbo</td><td>8599</td><td>an economical phone by moto</td></tr>
<tr><td>Lenovo Vibe X3</td><td>1999</td><td>high end phone by Lenovo</td></tr>
<tr><td>iphone 8 plus</td><td>19999</td><td>a high end phone by Lenovo</td></tr>
</table>
</div>
<aside style ="width: 25%; float: right; padding: 10px;background-color : yellow;">
<p><h1>Laptop</h1></br>Laptops combine many desktop components and capabilities into a single unit, including the central processing unit (CPU), random-access memory (RAM), hard disk drive (HDD) or solid-state drive (SSD), and graphics processing unit (GPU).</p>
</aside></br>
<h1>Clothing</h1>
        <p>Shopping malls usually feature many clothing stores, so whether you like following the latest fashion trends, or you simply want to buy new clothes for your young children, your local mall should be your destination. Buying clothes that you can touch and try on makes more sense than ordering clothes online.</p>
<h1>Accessories</h1>
        <p>Accessories that are worn may include jackets, boots and shoes, cravats, ties, hats, bonnets, belts and suspenders, gloves, muffs, necklaces, bracelets, watches, eyewear, sashes, shawls, scarves, lanyards, socks, pins, piercings, rings, and stockings.</p>

<div>
<h3> About </h3>
<dl>
  <dt>About Page</dt>
  <dd>Here page details are included</dd>
</dl>
<ol>
<h3>Page Created By </h3>
<li>Tarak</li>
<li>Satya</li>
<li>Amigos</li>
</ol>
<ul>
<h3>This Page Includes</h3>
<li>Home</li>
<li>Login</li>
<li>Signup</li>
<li>Track Order</li>
</ul>
</div>
<footer>
<address>
      Organization Name: IEKart's Online Shopping <br>
```

```
        Web Site:
        <a href="">
        IEKart's</a><br>
        visit us:<br>
        IEKart's Online Shopping<br>
        Vijayawada Besant Road Street 1 <br>
        <h2>IEKarts’s &amp;copy;</h2>
</address></footer>
</body>
</html>
```

Output:





Exercise 3.a

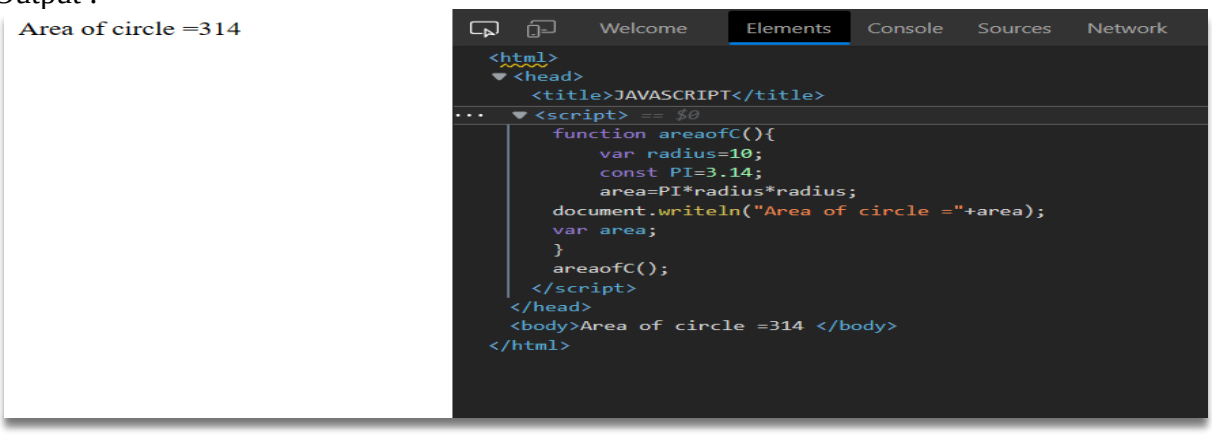
Aim :-Write a JavaScript program to find the area of a circle using radius (var and let - reassign and observe the difference with var and let) and PI (const)

Procedure : -
Area can be find using (**Area of Circle= radius * radius * PI)**
Var & Let :-
In the early days of JavaScript, there was only one way of declaring variables and that was using the var keyword. A variable declared with var is defined throughout the program. One of the issues with using the var keyword was redeclaring a variable inside a block will also redeclare the variable outside the block.
With the introduction of ES6 in 2015 two more keywords, let and const came into the picture. var and let are both used for variable declaration in javascript but the difference between them is that var is function scoped and let is block scoped. Variables declared by let cannot be redeclared and must be declared before use whereas variables declared with var keyword are hoisted.

Program :-
Using Var :-

```
<html>
<head><title>JAVASCRIPT</title>
<script>
function areaofC(){
        var radius=10;
        const PI=3.14;
        area=PI*radius*radius;
document.writeln("Area of circle ="+area);
var area;
}
areaofC();
</script>
</head>
</html>
```

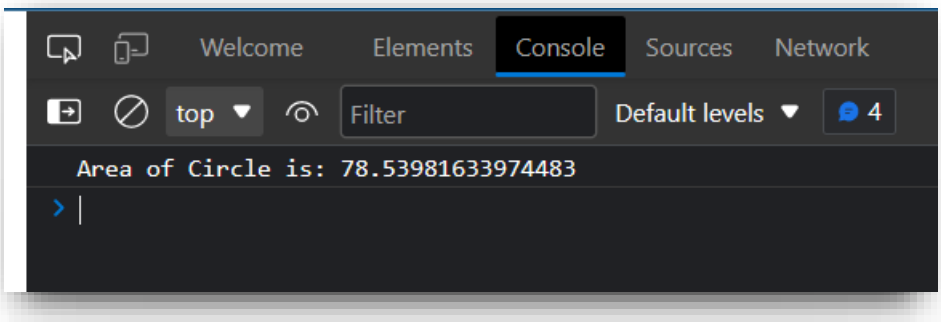
Output :-



Using Let :-

```
<html>
<head>
<script>
	let pi = 3.14159265358979323846;

	// Function to calculate the area of circle
	function findArea(r) {
		return (pi * r * r);
	}

	// Driver code
	let r, Area;
	r = 5;

	// Function calling
	Area = findArea(r);

	// displaying the area
	console.log("Area of Circle is: " + Area);
</script>
</head>
</html>
```

Output :-



Exercise 3.b

Aim :-Write JavaScript code to display the movie details such as movie name, starring, language, and ratings. Initialise the variables with values of appropriate types. Use template literals wherever necessary.

Procedure : -

Var & Let :-
In the early days of JavaScript, there was only one way of declaring variables and that was using the var keyword. A variable declared with var is defined throughout the program. One of the issues with using the var keyword was redeclaring a variable inside a block will also redeclare the variable outside the block.
With the introduction of ES6 in 2015 two more keywords, let and const came into the picture. var and let are both used for variable declaration in javascript but the difference between them is that var is function scoped and let is block scoped. Variables declared by let cannot be redeclared and must be declared before use whereas variables declared with var keyword are hoisted.

Template Literal :-

- Template Literals use back-ticks (``) rather than the quotes ("") to define a string
- With template literals, you can use both single and double quotes inside a string
- Template literals allows multiline strings
- Template literals provide an easy way to interpolate variables and expressions into strings.
- The method is called string interpolation.
- The syntax is:
- ${...}

Program :-

```
<html>
<head>
  <title>Movie Details</title>
  <style>
    div#maincontent {
      height: 100px;
      width: 500px;
      border: 1px solid #CEE2FA;
      text-align: left;
      color: #08438E;
      font-family: calibri;
      font-size: 20;
      padding: 5px;
    }
```

```
        div#heading {
            text-decoration: bold;
            text-align: center;
            margin-top: 80px;
            width: 500px;
            border: 1px solid #CEE2FA;
            text-align: center;
            color: #08438E;
            background-color: #CEE2FA;
            font-family: calibri;
            font-size: 20;
            padding: 5px;
        }
    </style>
</head>
<body>
    <center>
        <div id="heading">Movie Details</div>
        <div id="maincontent">
            <script>
                let movie="Twilight";
                let lang="English";
                let rating = 4.5;
                document.write("Movie : "+ movie);
                document.writeln("<br>Language : "+lang);
                document.writeln("<br>Ratings : "+rating);
            </script>
        </div>
    </center>


</body>

</html>
```

Output :-

Exercise 3.c

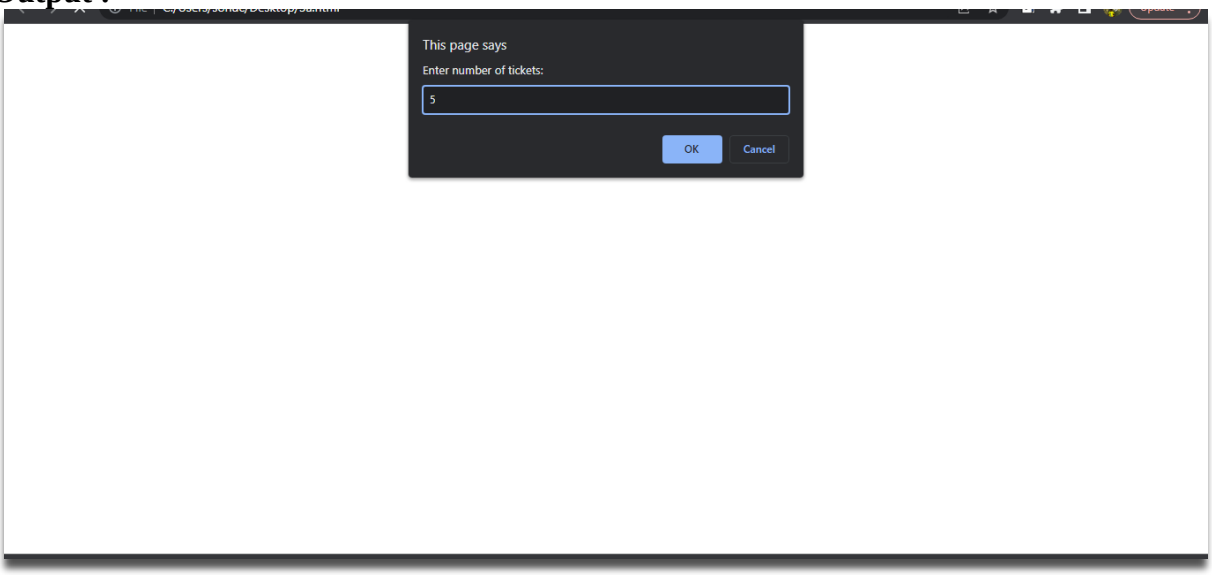
Aim :-Write JavaScript code to book movie tickets online and calculate the total price, considering the number of tickets and price per ticket as Rs. 150. Also, apply a festive season discount of 10% and calculate the discounted amount.

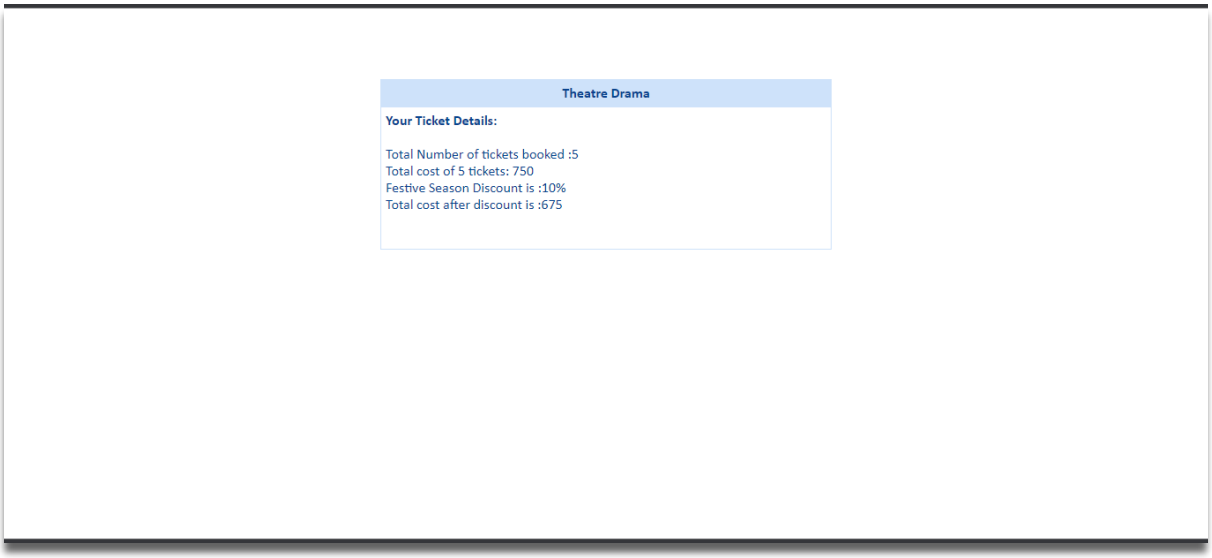
Program :-

```
<!DOCTYPE html>
<html>
<head>
   <title>Ticket Details</title>
   <style>
      div#maincontent {
         height: 150px;
         width: 500px;
         border: 1px solid #CEE2FA;
         text-align: left;
         color: #08438E;
         font-family: calibri;
         font-size: 20;
         padding: 5px;
      }
      div#heading {
         text-decoration: bold;
         text-align: center;
         margin-top: 80px;
         width: 500px;
         border: 1px solid #CEE2FA;
         text-align: center;
         color: #08438E;
         background-color: #CEE2FA;
         font-family: calibri;
         font-size: 20;
         padding: 5px;
      }
      h4 {
         padding: 0;
         margin: 0;
      }
   </style>
</head>
<body>
   <center>
      <div id="heading">
         <b>Theatre Drama</b>
      </div>
      <div id="maincontent">
         <h4>Your Ticket Details:</h4>
         <br>
         <script>
```

```
            let tickets = prompt("Enter number of tickets:");
           document.write("Total Number of tickets booked :"+tickets);
            const tcost = 150;
            let totalcost=tickets*tcost;
    document.write("<br>Total cost of "+ tickets +" tickets: "+totalcost);
            document.write("<br>Festive Season Discount is :10%");
  document.write("<br>Total cost after discount is :"+(totalcost-(totalcost*0.1)));
        </script>
      </div>
   </center>
</body>
</html>
```

Output :-





Exercise 3.d

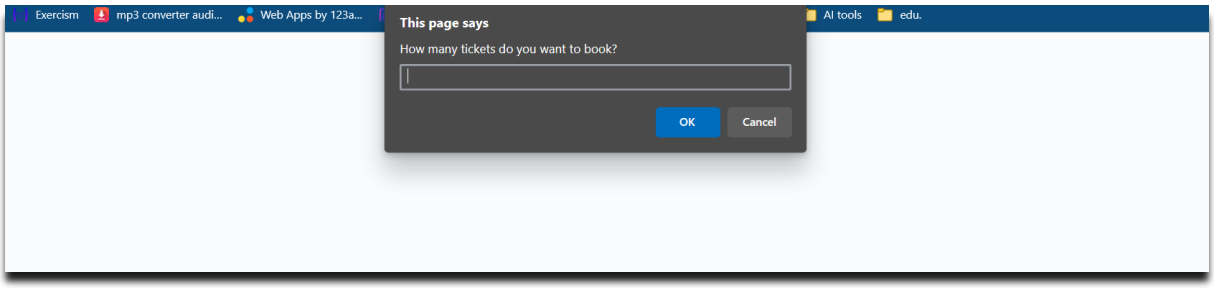
Aim :-Write a JavaScript code to book movie tickets online and calculate the total price based on the 3 conditions: (a) If seats to be booked are not more than 2, the cost per ticket remains Rs. 150. (b) If seats are 6 or more, booking is not allowed. (c) If se

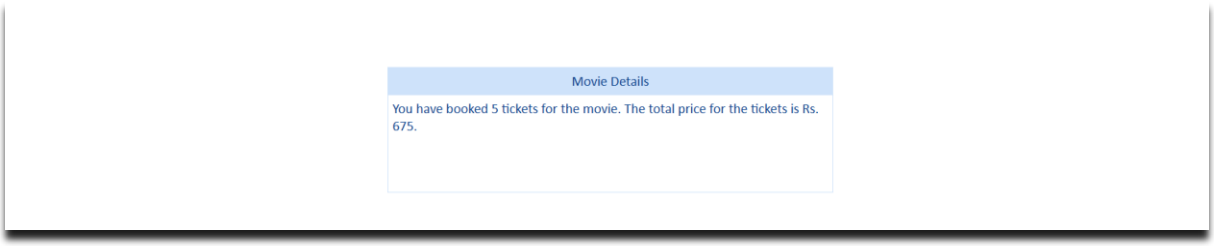
Program :-

```
<!DOCTYPE html>
<html>
<head>
   <title>Ticket Details</title>
   <style>
      div#maincontent {
         height: 150px;
         width: 500px;
         border: 1px solid #CEE2FA;
         text-align: left;
         color: #08438E;
         font-family: calibri;
         font-size: 20;
         padding: 5px;
      }
      div#heading {
         text-decoration: bold;
         text-align: center;
         margin-top: 80px;
         width: 500px;
         border: 1px solid #CEE2FA;
         text-align: center;
         color: #08438E;
         background-color: #CEE2FA;
         font-family: calibri;
         font-size: 20;
         padding: 5px;
      }
      h4 {
         padding: 0;
         margin: 0;
      }
   </style>
</head>
<body>
   <center>
      <div id="heading">
         <b>Theatre Drama</b>
      </div>
      <div id="maincontent">
         <h4>Your Ticket Details:</h4>
         <br>
```

```
<script>
        const basePrice = 150;
        const maxSeats = 6;
        let numTickets = prompt("How many tickets do you want to book?");
        numTickets = parseInt(numTickets);
        let totalPrice = 0;
        if (numTickets <= 2)
        {
           totalPrice = numTickets * basePrice;
        }
        else if (numTickets >= maxSeats)
        {
           document.writeln(`Sorry, you cannot book more than    ${maxSeats} tickets at a
time.`);
        }
        else
        {
           let discount = 0;
           switch (numTickets)
           {
              case 3:
                 discount = 0.05;
                 break;
              case 4:
                 discount = 0.075;
                 break;
              case 5:
                 discount = 0.10;
                 break;
           }
           totalPrice = numTickets * basePrice * (1 - discount);
        }
        document.writeln(`You have booked ${numTickets} tickets for the movie.`);
        document.writeln(`The total price for the tickets is Rs. ${totalPrice}.`);
      </script>
</div>
   </center>
</body>
</html>
```

Output :-


Exercism
mp3 converter audi...
Web Apps by 123a...
AI tools
edu.
This page says
How many tickets do you want to book?
OK
Cancel


Movie Details
You have booked 5 tickets for the movie. The total price for the tickets is Rs. 675.

Exercise – 3 .e

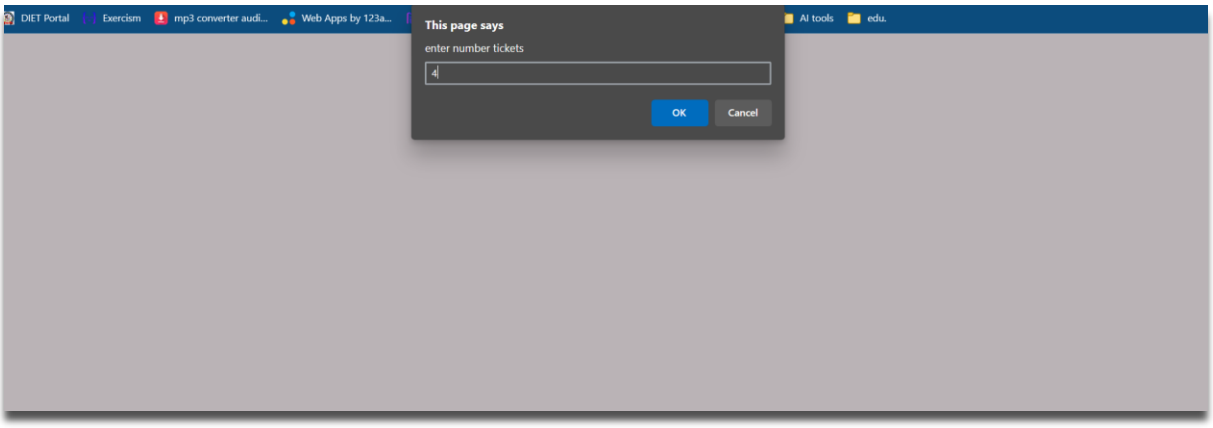
Aim:- Write a JavaScript code to book movie tickets online and calculate the total price based on the 3 conditions: (a) If seats to be booked are not more than 2, the cost per ticket remains Rs. 150. (b) If seats are 6 or more, booking is not allowed.

Program:-

```
<!DOCTYPE html>
<html>
<head>
   <title>Booking Summary</title>
   <style>
      div#maincontent {
         height: 250px;
         width: 500px;
         border: 1px solid #CEE2FA;
         text-align: left;
         color: #08438E;
         font-family: calibri;
         font-size: 20;
         padding: 5px;
      }
      div#heading {
         text-decoration: bold;
         text-align: center;
         margin-top: 80px;
         width: 500px;
         border: 1px solid #CEE2FA;
         text-align: center;
         color: #08438E;
         background-color: #CEE2FA;
         font-family: calibri;
         font-size: 20;
         padding: 5px;
      }
      h2 {
         padding: 0;
         margin: 0;
      }
   </style>
</head>

<body>
   <center>
      <div id="heading">
         <h2>Booking Summary</h2>
```

```
    </div>
    <div id="maincontent">
  <script>
      var disc,cost;
    var ticket=150;
    var seats=prompt("enter number tickets");
    if(seats>5)
    {
      document.write("booking not allowed");
    }
    else if( seats<=2)
    {
          document.write(seats+" are not eligble for festive discount<br>");
          document.write("cost remain same as 150");

    }
    else
    {
      document.write(seats+" are eligble for festive discount<br>");
       let i,d=0,dis=5,sum=0;
       for( i=1;i<=seats;i++)
            {
            d=(150*(dis/100));

            cost = (150*seats)-d;
               document.write((dis)+"% discount on ticket "+ i +"  "+ cost +"<br>");
              dis+=2;
            sum+=cost;
               }
      document.write("you paid "+sum+" instead of "+(seats*150)*(i-1));

    }
  </script>
    </div>
  </center>
</body>

</html>
```

Output:-


DIET Portal
Exercism
mp3 converter audi...
Web Apps by 123a...
AI tools
edu.
This page says
enter number tickets
4
OK
Cancel


Booking Summary
4 are eligble for festive discount
5% discount on ticket 1 592.5
7% discount on ticket 2 589.5
9% discount on ticket 3 586.5
11% discount on ticket 4 583.5
you paid 2352 instead of 2400

Exercise 4.a

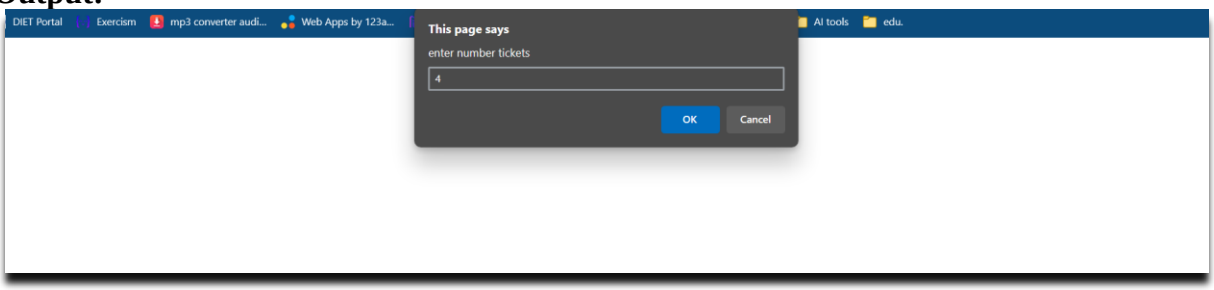
Aim :-Write a JavaScript code to book movie tickets online and calculate the total price based on the 3 conditions: (a) If seats to be booked are not more than 2, the cost per ticket remains Rs. 150. (b) If seats are 6 or more, booking is not allowed.

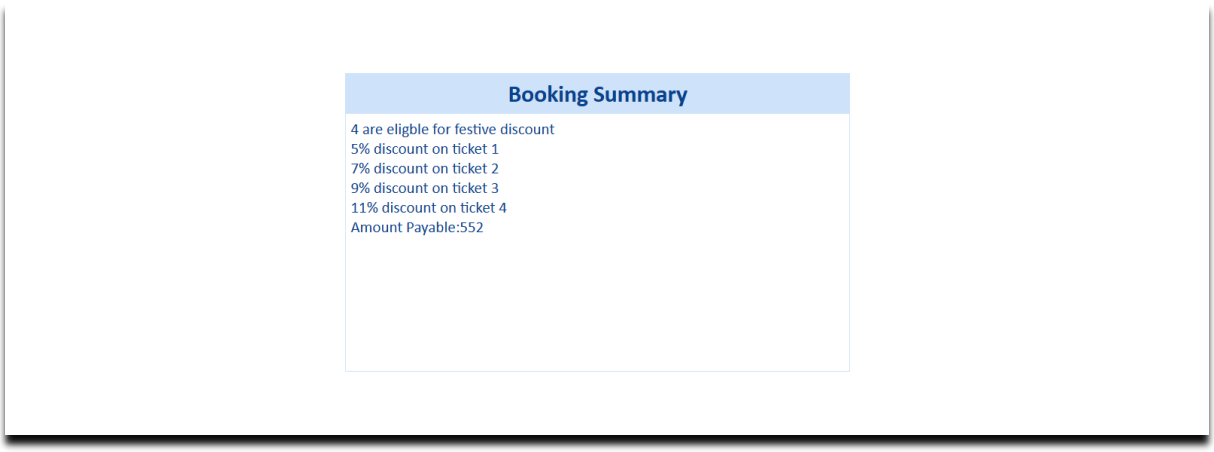
Program :-

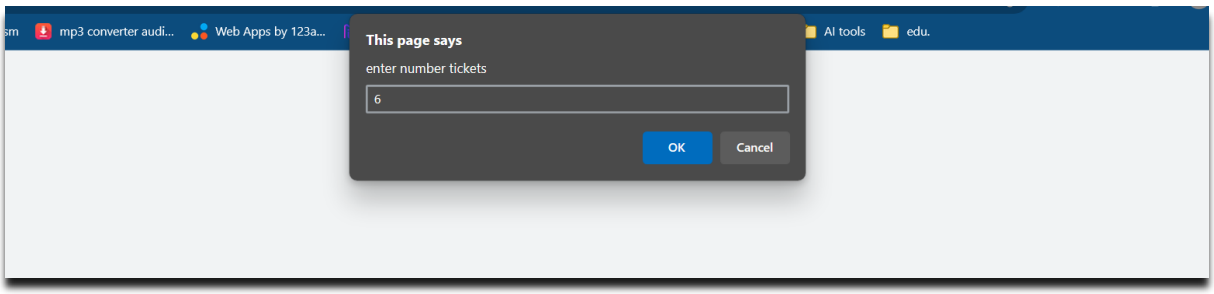
```
<!DOCTYPE html>
<html>
<head>
<title>Booking Summary</title>
<style>
div#maincontent {
height: 250px;
width: 500px;
border: 1px solid #CEE2FA;
text-align: left;
color: #08438E;
font-family: calibri;
font-size: 20;
padding: 5px;
}
div#heading {
text-decoration: bold;
text-align: center;
margin-top: 80px;
width: 500px;
border: 1px solid #CEE2FA;
text-align: center;
color: #08438E;
background-color: #CEE2FA;
font-family: calibri;
font-size: 20;
padding: 5px;
}
h2 {
padding: 0;
margin: 0;
}
</style>
</head>
 <body>
<center>
<div id="heading">
<h2>Booking Summary</h2>
</div>
<div id="maincontent">
```

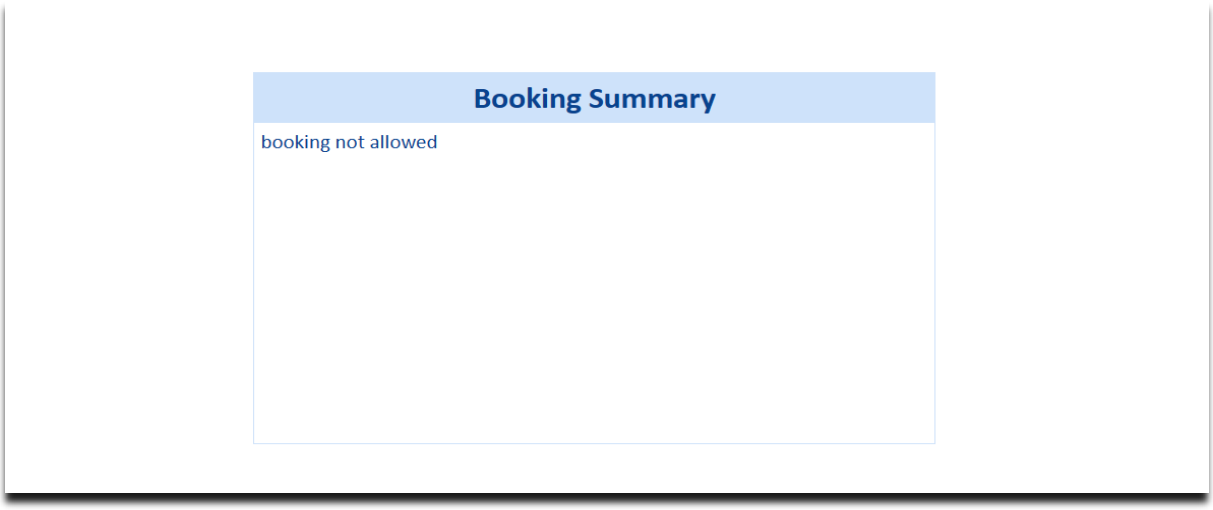
```
<script>
var disc,cost;
                var seats=prompt("enter number tickets");
                if(seats>4)
                {
                 document.write("booking not allowed");
                }
                else
                {
                 function calculateDiscount(seats)
                 {
                 if(seats<=2)
                 {
                        document.write(seats+" are not eligible for festive discount<br>");
                        return 0;
                 }
                 else
                 {
                        document.write(seats+" are eligble for festive discount<br>");
                        let d=0,dis=5;
                        for(let i=1;i<=seats;i++)
                        {
                        document.write((dis)+"% discount on ticket "+i+"<br>");
                        d+=(150*dis/100);
                        dis+=2;
                        }
                        return d;
                 }
                 }
                 disc=calculateDiscount(seats);
                 function calculateCost(seats)
                 {
                 return (150*seats-disc);
                 }
                 cost=calculateCost(seats);
                 document.write("Amount Payable:"+cost);
                }
</script>
</div>
</center>
</body>
</html>
```

Output:-


DIET Portal
Exercism
mp3 converter audi...
Web Apps by 123a...
AI tools
edu.
This page says
enter number tickets
4
OK
Cancel


Booking Summary
4 are eligble for festive discount
5% discount on ticket 1
7% discount on ticket 2
9% discount on ticket 3
11% discount on ticket 4
Amount Payable:552


mp3 converter audi...
Web Apps by 123a...
AI tools
edu.
This page says
enter number tickets
6
OK
Cancel


Booking Summary
booking not allowed

Exercise – 4.b

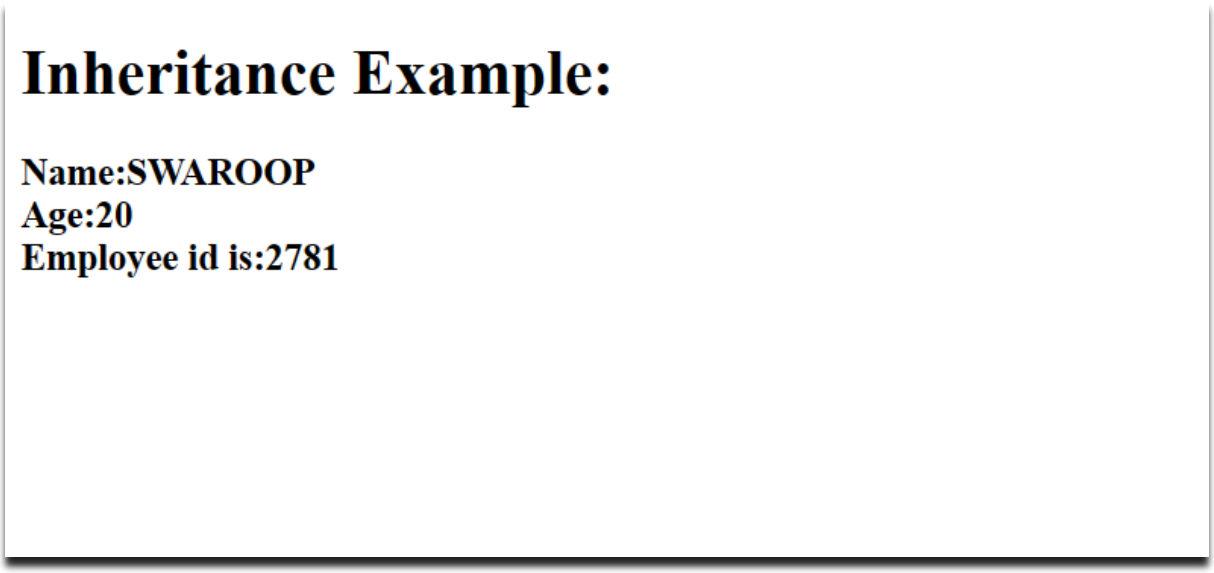
Aim :- Create an Employee class extending from a base class Person. Hints: (i) Create a class Person with name and age as attributes. (ii) Add a constructor to initialize the values (iii) Create a class Employee extending Person with additional attributes role.

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>
    <h1>Inheritance Example:</h1>
    <h3 id="demo">
    </h3>
    <script>
        class Person{
            constructor(name,age){
                this.name=name;
                this.age=age;
            }
            basePerson(){
                return "Name:"+this.name+"<br>"+"Age:"+this.age+"<br>";
            }
        }
        class Employee extends Person{
```

```
        constructor(name,age,empid){
            super(name,age);
            this.empid=empid;
        }
        show() {
            return this.basePerson()+"Employee id is:"+this.empid;
        } }
    const emp = new Employee("SWAROOP ",20,2781);
    document.getElementById("demo").innerHTML=emp.show()
  </script>
</body>
</html>
```

Output:-



Exercise-4.c

Aim: Write a JavaScript code to book movie tickets online and calculate the total price based on the 3 conditions: (a) If seats to be booked are not more than 2, the cost per ticket remains Rs. 150. (b) If seats are 6 or more, booking is not allowed.

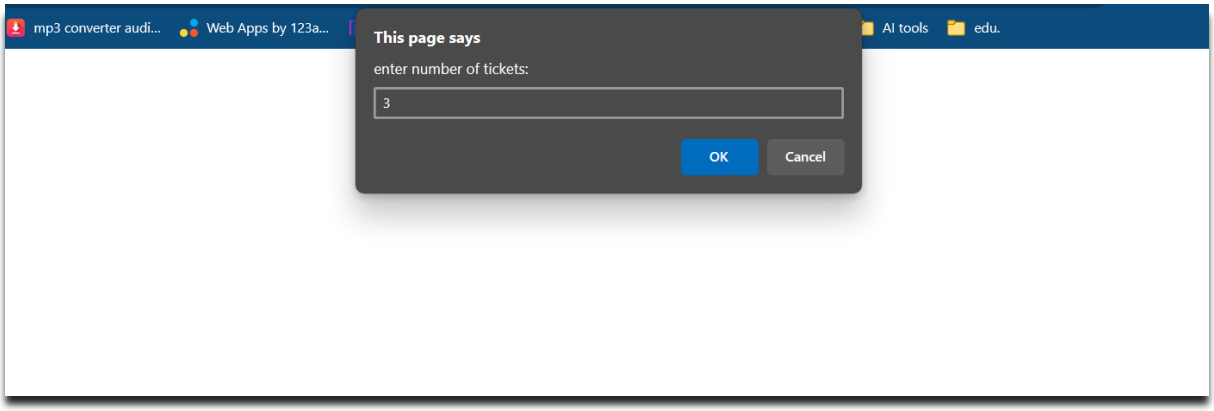
Program:

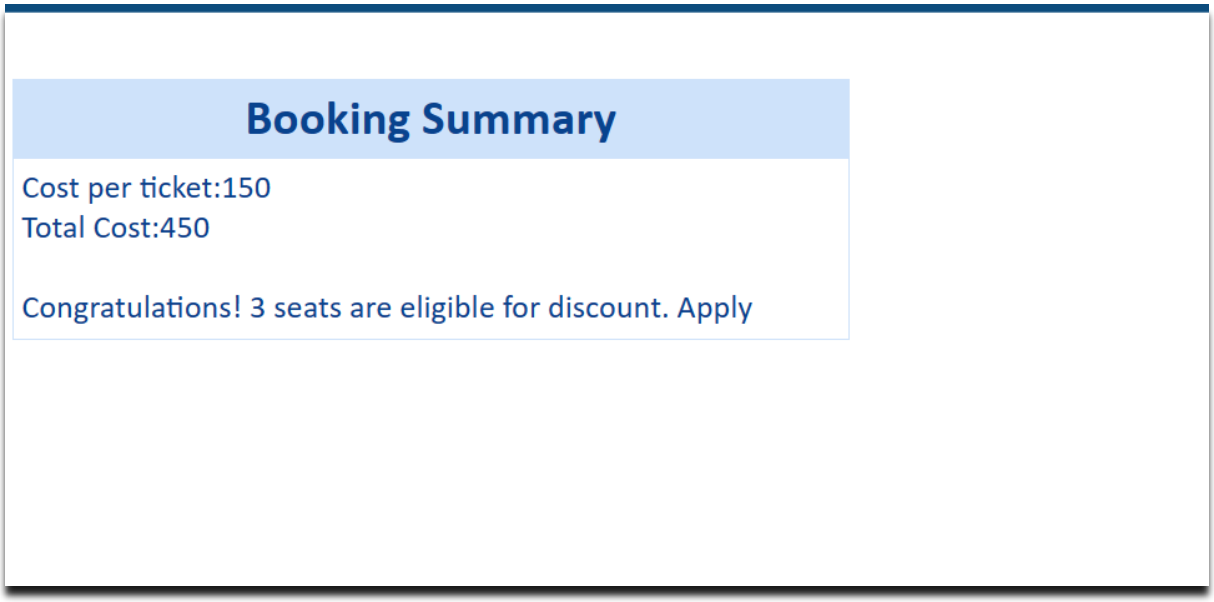
```
<html>
<head>
<title>Booking Details</title>
<style>
div#maincontent
                    {
height: 100px;
width: 500px;
border: 1px solid #CEE2FA;
text-align: left;
color: #08438E;
font-family: calibri;
font-size: 20;
padding: 5px;
margin-left: 10px;
}
div#heading
text-decoration: bold;
text-align: center;
margin-top: 40px;
margin-left: 10px;
width: 500px;
border: 1px solid #CEE2FA;
text-align: center;
color: #08438E;
background-color: #CEE2FA;
```

```
font-family: calibri;
font-size: 20;
padding: 5px;
}
h2
padding: 0;
margin: 0;
}
</style>
</head>
<body>
<div id="heading">
  <h2>Booking Summary</h2>
</div>
<div id="maincontent">
<script>
        var d,c;
                        var s=prompt("enter number of tickets:");
                        if(s>5)
                                document.write("booking not possible");
                        else
                        {
                                if(s<3)
                                {
                                        document.write("Cost per ticket:150<br>");
                                        document.write("Total Cost:"+(150*s));
        document.write("<br><br>For "+s+" tickets discount not applicable");
                                }
                                else
                                {
                                        document.write("Cost per ticket:150<br>");
                                        document.write("Total Cost:"+(150*s));
```

```
document.write("<br><br>Congratulations! "+s+" seats are eligible for discount. <a
onclick=calculateCost(s)>Apply</a>");
                        }
                }
                function calculateCost(s)
                {
                        d=calculateDiscount(s);
                        c=150*s-d;
                        alert("Amount payable after discount is:"+c);
                }
                function calculateDiscount(s)
                {
                        let dp=5;
                        d=0;
                        for(let i=1;i<=s;i++)
                        {
                                d+=(150*dp/100);
                                dp+=2;
                        }
                        return d;
</script>
</div>
</body>
</html>
```

OUTPUT:-


mp3 converter audi...
Web Apps by 123a...
AI tools
edu.
This page says
enter number of tickets:
3
OK
Cancel


Booking Summary
Cost per ticket:150
Total Cost:450
Congratulations! 3 seats are eligible for discount. Apply

Exercise -5.a

Aim: Create an array of objects having movie details. The object should include the movie name, starring, language, and ratings. Render the details of movies on the page using the array.

Procedure : -

Array :-

If you have a list of items (a list of car names, for example), storing the cars in single variables could look like this:

let car1 = "Saab";
let car2 = "Volvo";
let car3 = "BMW";

However, what if you want to loop through the cars and find a specific one? And what if you had not 3 cars, but 300?

The solution is an array!

An array can hold many values under a single name, and you can access the values by referring to an index number.

Creating an Array :-

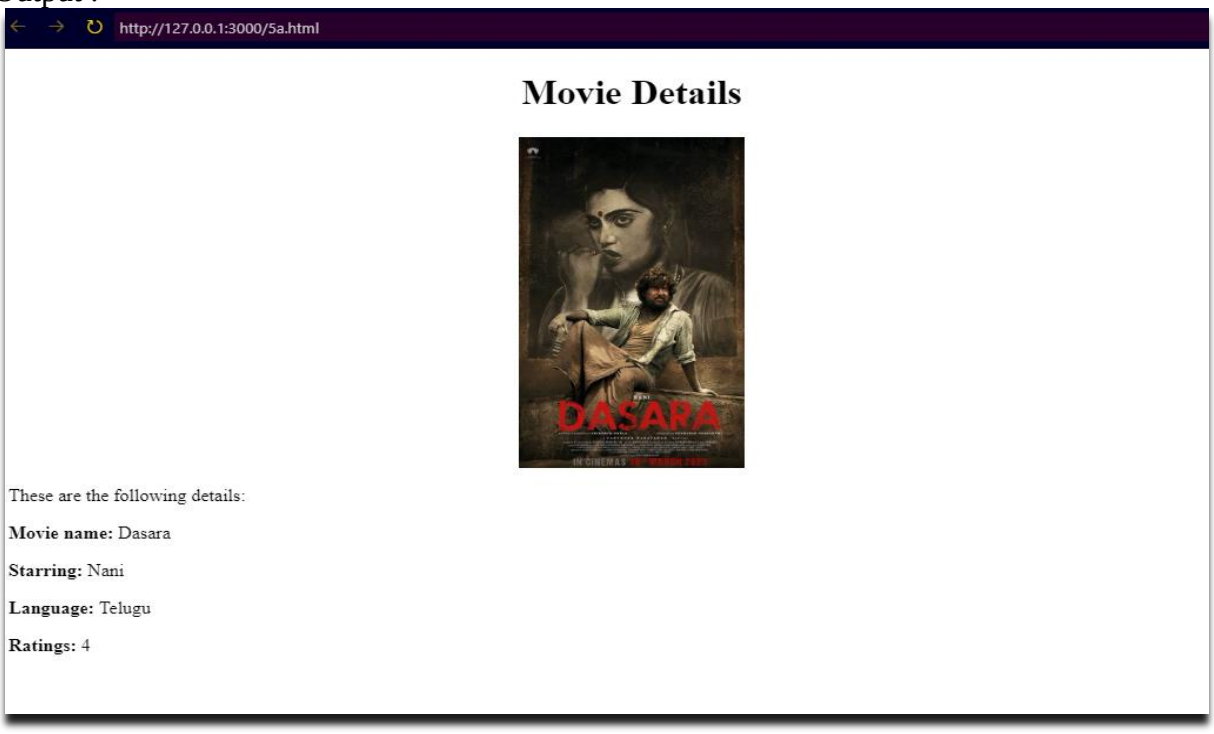
- Using an array literal is the easiest way to create a JavaScript Array.
- Syntax:
- const *array_name* = [*item1*, *item2*, ...];
- Example
- const cars = ["Saab", "Volvo", "BMW"];

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>
   <h1 style="text-align: center;">Movie Details</h1>
   <aside  >
      <img
src="https://th.bing.com/th/id/OIP.DK32jdKG3HbvtIExnPRUlAHaLl?pid=ImgDet&rs=1"
alt="image" style="height:300px ;display: block;
      margin-left: auto;
      margin-right: auto;">
   </aside>

   <p>These are the following details:</p>
```

```
    <p id="name"></p>
    <p id="starring"></p>
    <p id="language"></p>
    <p id="rating"></p>
    <script>
        const movie={
            name:"Dasara",
            starring:"Nani",
            language:"Telugu",
            rating:4
        };
        document.getElementById("name").innerHTML="<b>Movie
name:   </b>"+movie.name;
        document.getElementById("starring").innerHTML="<b>Starring:
</b>"+movie.starring;
        document.getElementById("language").innerHTML="<b>Language:
</b>"+movie.language;
        document.getElementById("rating").innerHTML="<b>Ratings:    </b>"+movie.rating;


    </script>

</body>
</html>
```

Output :-



Exercise 5.b

Aim :-Simulate a periodic stock price change and display on the console. Hints: (i) Create a method which returns a random number - use Math.random, floor and other methods to return a rounded value. (ii) Invoke the method for every three seconds and stop when

Procedure : -

Array :-
If you have a list of items (a list of car names, for example), storing the cars in single variables could look like this:

```
let car1 = "Saab";
let car2 = "Volvo";
let car3 = "BMW";
```

However, what if you want to loop through the cars and find a specific one? And what if you had not 3 cars, but 300?
The solution is an array!
An array can hold many values under a single name, and you can access the values by referring to an index number.

Creating an Array :-

- Using an array literal is the easiest way to create a JavaScript Array.
- Syntax:
- const *array_name* = [*item1*, *item2*, ...];
- Example
- const cars = ["Saab", "Volvo", "BMW"];

Math.Random() :-
The Math.random() static method returns a floating-point, pseudo-random number that's greater than or equal to 0 and less than 1, with approximately uniform distribution over that range — which you can then scale to your desired range. The implementation selects the initial seed to the random number generation algorithm; it cannot be chosen or reset by the user.

Syntax

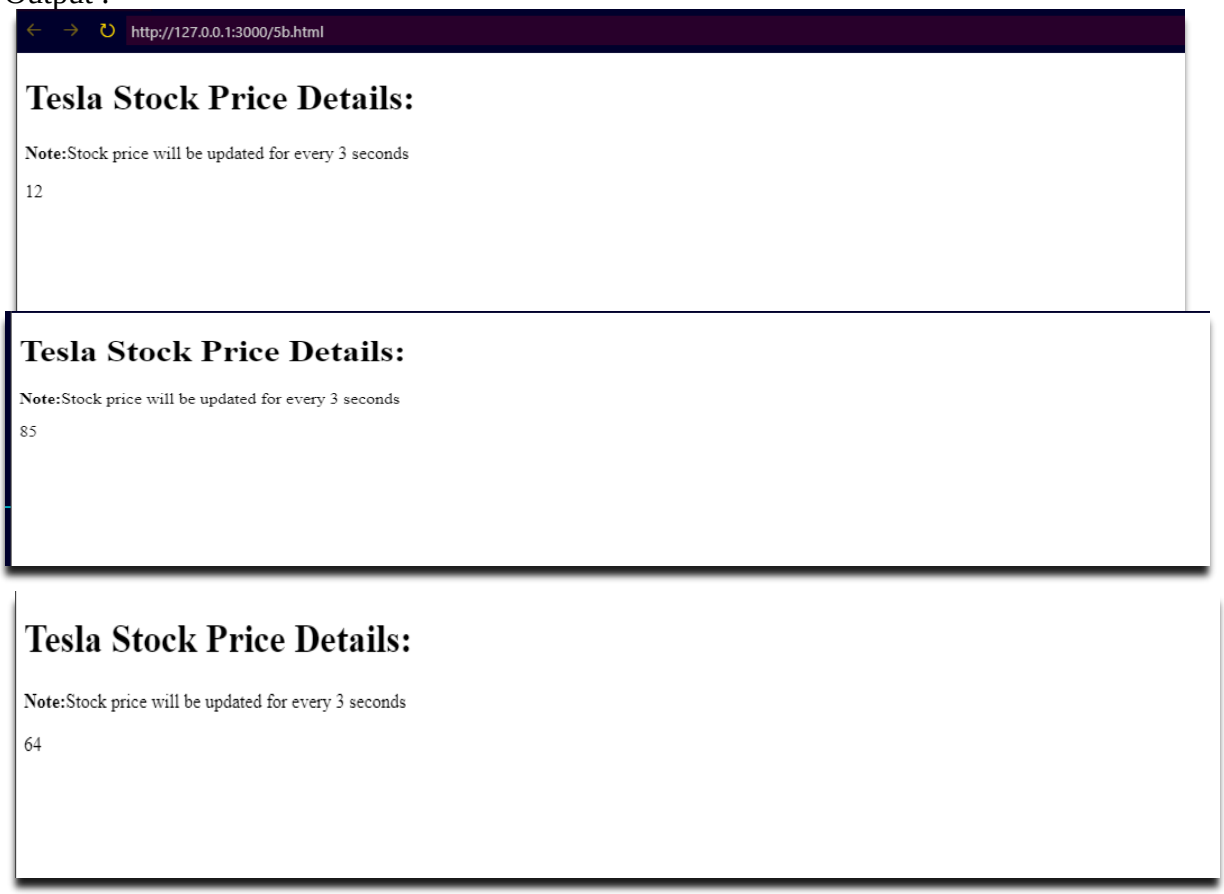
Math.random()

Return value
A floating-point, pseudo-random number between 0 (inclusive) and 1 (exclusive).

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>
    <h1>Tesla Stock Price Details:</h1>
    <p><b>Note:</b>Stock price will be updated for every 3 seconds</p>
    <p id="demo">100</p>
    <script>
        setInterval(myfun, 3000);
        function myfun(){
            let x = Math.floor((Math.random() * 100) + 1);
            document.getElementById("demo").innerHTML = x;
        }
</script>
</body>
</html>
```

Output :-



Exercise 5.c

Aim :-Validate the user by creating a login module. Hints: (i) Create a file login.js with a User class. (ii) Create a validate method with username and password as arguments. (iii) If the username and password are equal it will return "Login Successful"

Program :-

File name : - Login.js

```
function validate() {
    var username = document.getElementById("username").value;
    var password = document.getElementById("password").value;
    var result = document.getElementById("result");
    function validate(username, password) {
        // Replace "correctusername" and "correctpassword" with the actual username and password that you want to use for authentication
        if (username === "admin" && password === "123456789") {
            result.innerHTML = "Login Successful";
            result.className = "login-result login-success";
        } else {
            result.innerHTML = "Login Unsuccessful. Please check your username and password and try again.";
            result.className = "login-result login-failure";
        }
    }
    validate(username, password);
}
```

File Name :- 5c.html

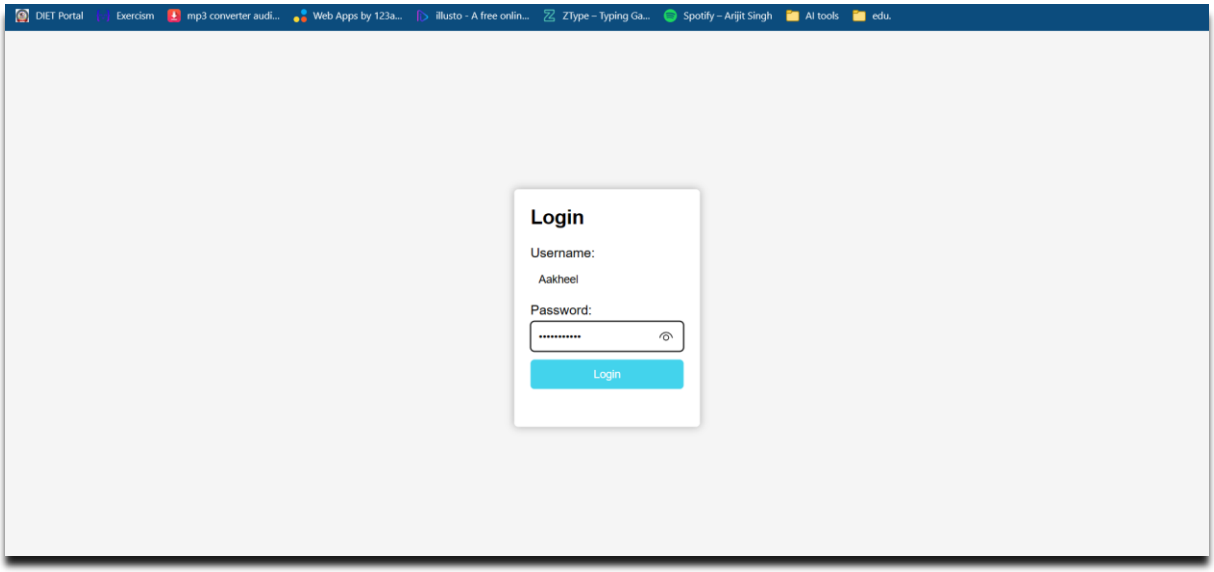
```
<!DOCTYPE html>
<html>
    <head>
        <title>Login</title>
        <meta charset="UTF-8">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <link rel="stylesheet" href="style.css">
        <script src="login.js"></script>
    </head>
    <body>
        <div class="container">
            <h2>Login</h2>
            <form>
                <label for="username">Username:</label>
                <input type="text" id="username" name="username">
                <label for="password">Password:</label>
                <input type="password" id="password" name="password">
                <input type="button" value="Login" onclick="validate()">
            </form>
            <p id="result" class="login-result"></p>
        </div>
    </body>
</html>
```

File Name :- style.css

```
.container {
        position: absolute;
        top: 50%;
        left: 50%;
        transform: translate(-50%, -50%);
        max-width: 400px;
        padding: 20px;
        background-color: #fff;
        border-radius: 5px;
        box-shadow: 0 0 10px rgba(0, 0, 0, 0.3);
}
h2 {
        margin-top: 0;
}
form {
        display: flex;
        flex-direction: column;
}
label {
        margin-bottom: 5px;
}
input[type="text"], input[type="password"], input[type="button"] {
        padding: 10px;
```

```
        border: none;
        border-radius: 5px;
        margin-bottom: 10px;
}
input[type="button"] {
        background-color: #43d3ec;
        color: #fff;
        cursor: pointer;
}
input[type="button"]:hover {
        background-color: #43d3ec;
}
.login-result {
        margin-top: 10px;
       font-weight: bold;
}
.login-success {
        color: #008000;
}
.login-failure {
        color: #ff0000;}
body {
        font-family: Arial, sans-serif;
        background-color: #f5f5f5;
}
```

Output :-


DIET Portal
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Exercise 6 a

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

Procedure : -
A JavaScript function is a block of code designed to perform a particular task.
A JavaScript function is executed when "something" invokes it (calls it).

JavaScript Function Syntax
A JavaScript function is defined with the function keyword, followed by a name, followed by parentheses ().
Function names can contain letters, digits, underscores, and dollar signs (same rules as variables).
The parentheses may include parameter names separated by commas:
(*parameter1, parameter2, ...*)
The code to be executed, by the function, is placed inside curly brackets: {}

Program :-

```
   > console.log("Hello World");
> function add(num1,num2){
... return num1+num2;}
> add(5,6);
> function sub(num1,num2){
... return num1-num2;}
> sub(10,2);
> function div(num1,num2){
... return num1/num2;}
> console.log("Date is:"+date.getDate()+"-"+(date.getMonth+1)+"-"+date.getFullYear);
> console.log("Date is:"+date.getDate()+"-"+(date.getMonth()+1)+"-"+date.getFullYear());
> console.log("Time is: "+date.getHours()+":"+date.getMinutes()+":"+date.getSeconds());
```

Output:-

```
Type ".help" for more information.
> console.log("Hello World");
Hello World
undefined
> function add(num1,num2){
... return num1+num2;}
undefined
> add(5,6);
11
> add(10,20);
30
> function sub(num1,num2){
... return num1-num2;}
undefined
> sub(10,2);
8
> sub(100,45);
55
> function mul(num1,num2){
... return num1*num2;
... }
undefined
> mul(5,6)
30
> mul(10,110);
1100
> function div(num1,num2){
... return num1/num2;}
undefined
> div(5,10)
0.5
> div(10,10)
1
> div(100,10);
10
> const date = new Date();
undefined
> console.log(date.getMonth()+1);
5
undefined
> console.log(date.getFullYear());
2023
undefined
> console.log(date.getDate());
4
undefined
> console.log("Date is:"+date.getDate()+"-"+(date.getMonth+1)+"-"+date.getFullYear);
Date is:4-function getMonth() { [native code] }1-function getFullYear() { [native code] }
undefined
> console.log("Date is:"+date.getDate()+"-"+(date.getMonth()+1)+"-"+date.getFullYear());
Date is:4-5-2023
undefined
> console.log(date.getHours());
14
undefined
> console.log(date.getMinutes());
24
undefined
> console.log(date.getSeconds());
1
undefined
> console.log("Time is: "+date.getHours()+":"+date.getMinutes()+":"+date.getSeconds());
Time is: 14:24:1
undefined
> console.log(date.getMinutes());
24
undefined
```

Exercise 6 b

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

Procedure : -

Creating web server in Node.js :-

To access web pages of any web application, you need a web server. The web server will handle all the http requests for the web application e.g IIS is a web server for ASP.NET web applications and Apache is a web server for PHP or Java web applications.
Node.js provides capabilities to create your own web server which will handle HTTP requests asynchronously. You can use IIS or Apache to run Node.js web applications but it is recommended to use Node.js web server.
Node.js makes it easy to create a simple web server that processes incoming requests asynchronously.
var server = http.createServer(function (req, res)

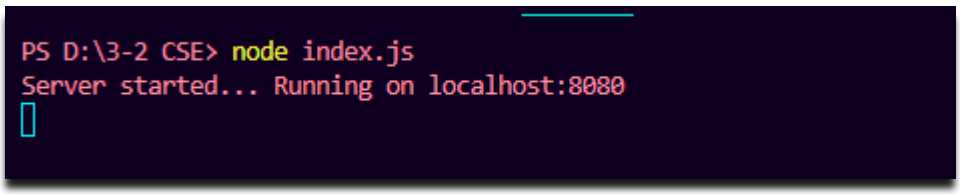
http.createServer :-

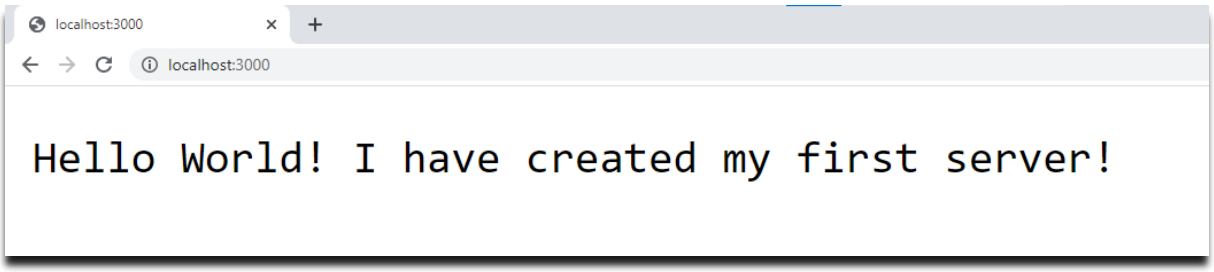
The http.createServer() method turns your computer into an HTTP server.
The http.createServer() method creates an HTTP Server object.
The HTTP Server object can listen to ports on your computer and execute a function, a requestListener, each time a request is made.

Program :-

```
const http = require("http");
var server = http.createServer((req, res) => {
res.write("Hello World! I have created my first server!");
res.end();
});
server.listen(3000);
console.log("Server started... Running on localhost:8080");
```

Output :-


PS D:\3-2 CSE> node index.js
Server started... Running on localhost:8080


localhost:3000
localhost:3000
Hello World! I have created my first server!

Exercise 6 c

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

Procedure : -

In Node.js, Modules are the blocks of encapsulated code that communicate with an external application on the basis of their related functionality. Modules can be a single file or a collection of multiple files/folders. The reason programmers are heavily reliant on modules is because of their reusability as well as the ability to break down a complex piece of code into manageable chunks.
Modules are of three types:

- Core Modules
- local Modules
- Third-party Modules

Core Modules: Node.js has many built-in modules that are part of the platform and come with Node.js installation. These modules can be loaded into the program by using the required function.
Syntax:
const module = require('module_name');
The require() function will return a JavaScript type depending on what the particular module returns. The following example demonstrates how to use the Node.js http module to create a web server.

Core Modules	Description
http	creates an HTTP server in Node.js.
assert	set of assertion functions useful for testing.
fs	used to handle file systems.

path	includes methods to deal with file paths.
process	provides information and control about the current Node.js process.
os	provides information about the operating system.
querystring	utility used for parsing and formatting URL query strings.
url	module provides utilities for URL resolution and parsing.

Local Modules: Unlike built-in and external modules, local modules are created locally in your Node.js application. Let's create a simple calculating module that calculates various operations.

Third-party modules: Third-party modules are modules that are available online using the Node Package Manager(NPM). These modules can be installed in the project folder or globally. Some of the popular third-party modules are Mongoose, express, angular, and React.

Example:

- npm install express
- npm install mongoose
- npm install -g @angular/cli

Program :-

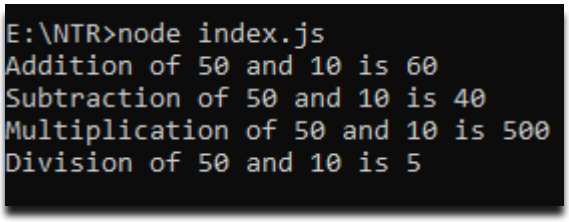
calc.js

```
exports.add = function (x, y) {
        return x + y;
};
exports.sub = function (x, y) {
        return x - y;
};
exports.mult = function (x, y) {
        return x * y;
};
exports.div = function (x, y) {
        return x / y;
};
```

index.js

```
  const calculator = require('./calc');
let x = 50, y = 10;
console.log("Addition of 50 and 10 is "+ calculator.add(x, y));
console.log("Subtraction of 50 and 10 is "+ calculator.sub(x, y));
console.log("Multiplication of 50 and 10 is "+ calculator.mult(x, y));
console.log("Division of 50 and 10 is "+ calculator.div(x, y));
```

Output :-



Exercise – 6.d

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

Procedure:-

Whenever we are working on a Node.js application and we do any change in code after the application is started, we will be required to restart the Node process for changes to reflect. In order to restart the server and to watch for any code changes automatically, we can use the Nodemon tool.

Nodemon

Nodemon is a command-line utility that can be executed from the terminal. It provides a different way to start a Node.js application. It watches the application and whenever any change is detected, it restarts the application.

It is very easy to get started with this tool. To install it in the application, run the below command.

```
1. npm install nodemon -g
```

Once the 'nodemon' is installed in the machine, the Node.js server code can be executed by replacing the command "node" with "nodemon".

```
1. nodemon app.js
```

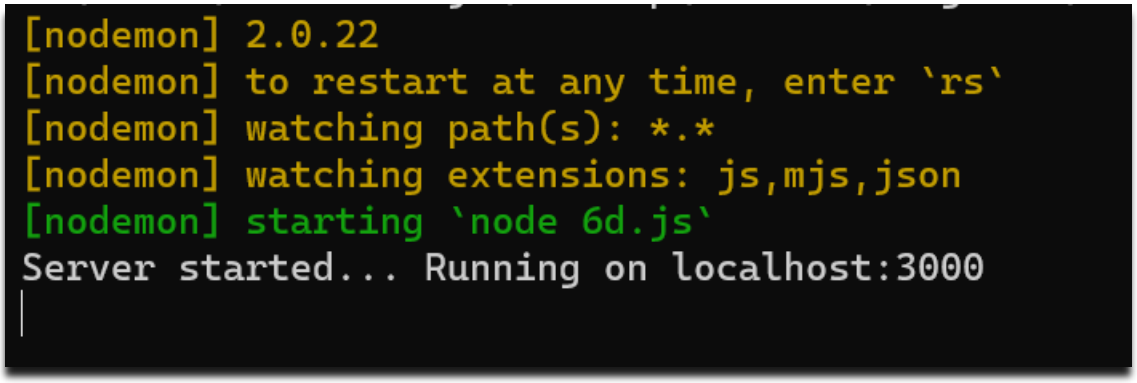
Thus the 'nodemon' starts the application in watch mode and restart the application when any change is detected.

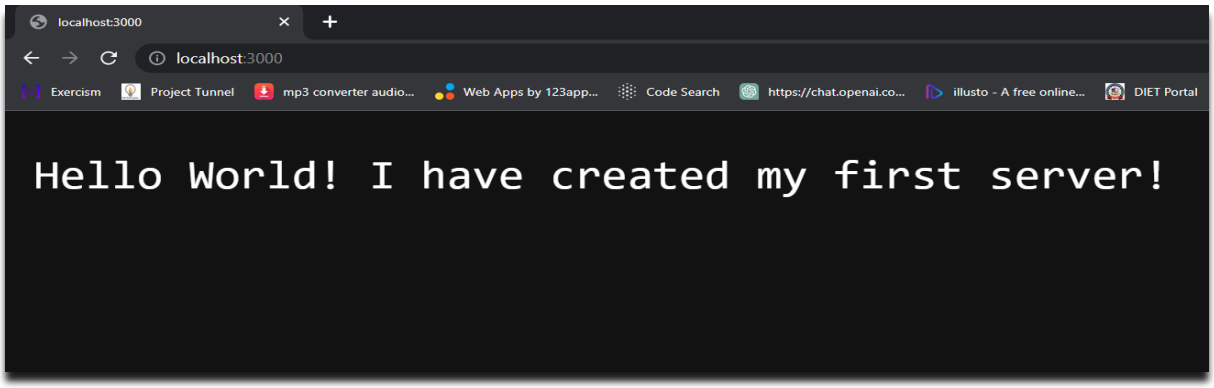
Program:-

```
const http = require("http");

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

Output before changing the code :-





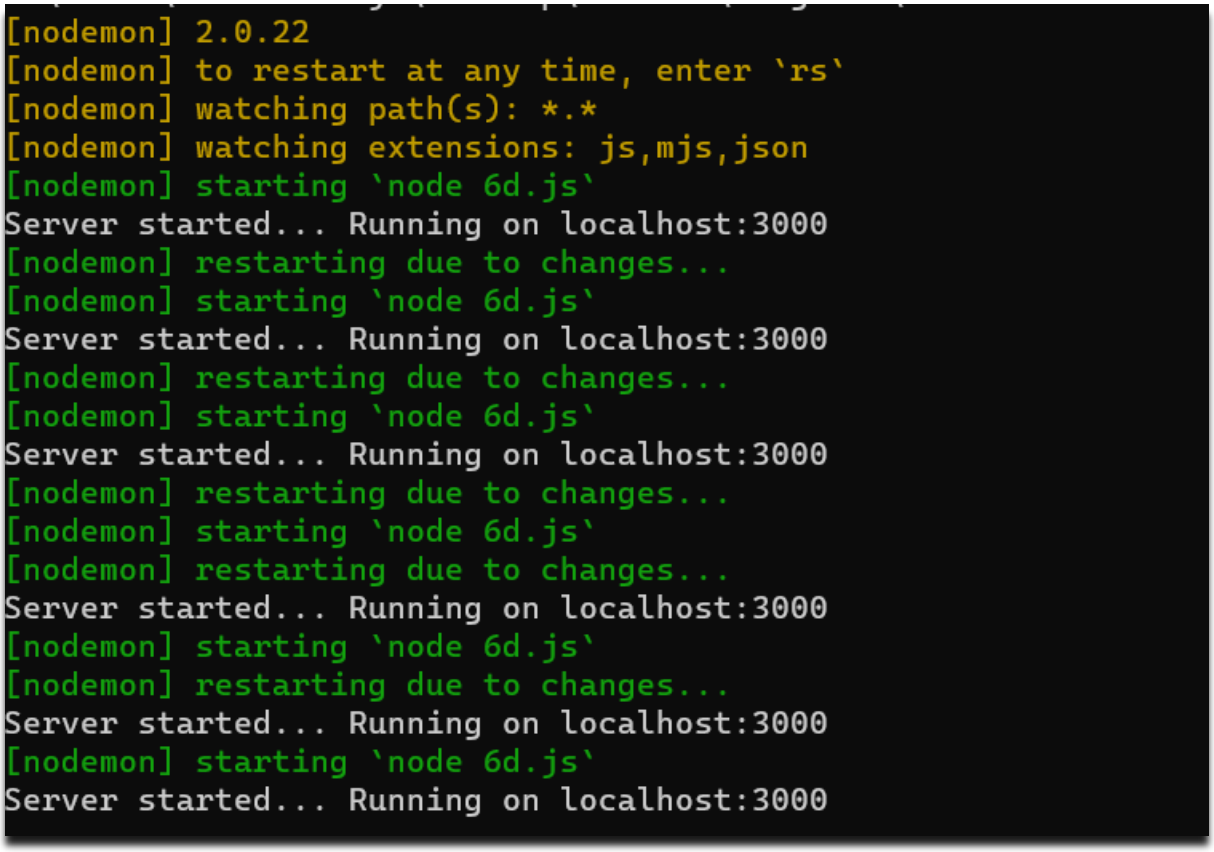
//Changed code

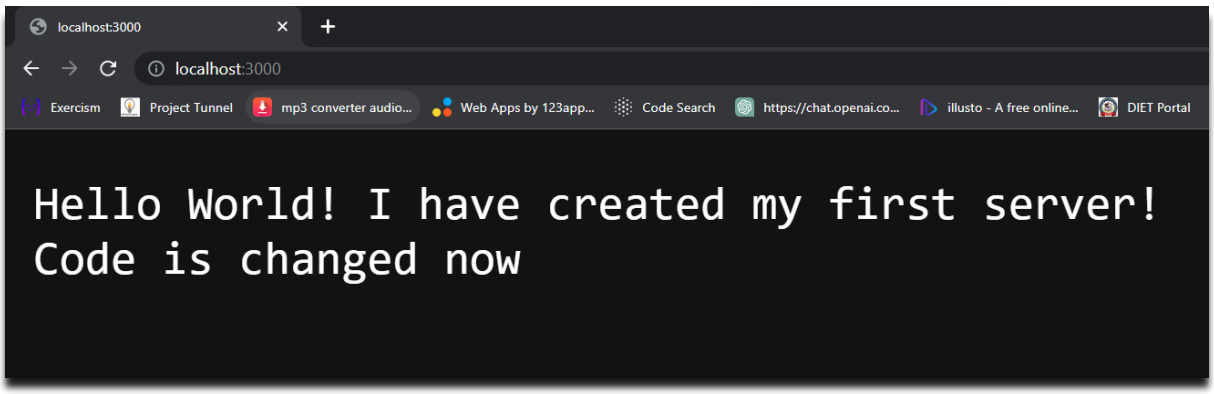
```
const http = require("http");

var server = http.createServer((req, res) => {
```

```
  res.write("Hello World! I have created my first server!");
  res.write("\nCode is changed now");
  res.end();
});
server.listen(3000);
console.log("Server started... Running on localhost:3000");
```

Output after changing the code:-





Exercise – 6.e

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

Procedure:-

Program:-

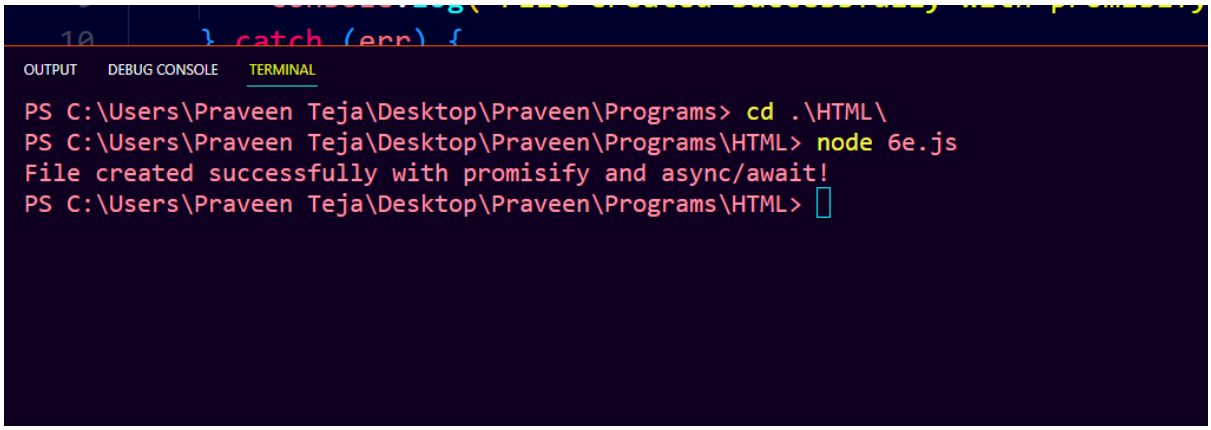
```
const fs = require('fs');
const { promisify } = require('util');

const writeFile = promisify(fs.writeFile);

(async () => {
   try {
      await writeFile('src.txt', ` Mongo, Express, Angular, Node.`);

      console.log('File created successfully with promisify and async/await!');
   } catch (err) {
      console.log(err);
   }
})();
```

Output:-



Now a new text file is created in the same folder