

**Department Of Computer Science**  
**Gujarat University**



**Certificate**

Roll No: 23

Seat No: \_\_\_\_\_

*This is to certify that Ms. DEVANGI BHARATBHAI PABARI student of MCA Semester – V, has duly completed her term work for the semester ending in December 2021, in the subject of WEB TECHNOLOGIES towards partial fulfillment of her Degree of Masters in Computer Science & Application.*

*14/12/2021*  
*Date of Submission*

*Internal Faculty*

*Head of Department*

**DEPARTMENT OF COMPUTER SCIENCE  
ROLLWALA COMPUTER CENTRE  
GUJARAT UNIVERSITY**

M.C.A. – V

**ROLL NO : 23**

**NAME : DEVANGI BHARATBHAI PABARI**

**SUBJECT: WIRELESS COMMUNICATIONS AND MOBILE TECHNOLOGIES**

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10	Display the current time and update it after every 1 second.	25	14/12/2021	
11	Display random quotes on button click.	26	14/12/2021	
12	Add a new entry in combo box dynamically.	28	14/12/2021	
13	To create object product, add the property Product Name, Quality and Price. Access all the property and display them	29	14/12/2021	
14	Write a javaScript to create object book  a) Add the property book name, author name b) Add the prototype property price. c) Display all the properties.	30	14/12/2021	
15	Write a javaScript program to create Parent object	31	14/12/2021	

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employee( Property : Employee Name, Employee Id, Salary) and Child object Manager (Property: Manager Name ,Branch). Inherit all the properties of the employee and display all the properties.			

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.....  
.....  
**Assignment 1(Javascript)**  
.....

**Question 1 : Basic Calculator**

```
<html>
<head>
<title>calculator</title>
<link rel="stylesheet" type="text/css" href="style.css">

</head>
<body>
<form class="container" name="calc">
  <div class="header">Calculator</div>
  <input type="text" class="result" name="text" disabled>
  <div class="first-row">
<input type="button" value="(" class="btn"
onclick="document.calc.text.value+='('"/>

<input type="button" value=")" class="btn"
onclick="document.calc.text.value+=')"/>

<input type="button" value="="
class="btn"onclick="document.calc.text.value=eval(calc.text.value)" />

<input type="button" value="Clear" class="btn"
onclick="document.calc.text.value =''" />
</div>

<div class="first-row">
<input type="button" value="7" class="btn"
onclick="document.calc.text.value+='7"/>
```

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```
-----
<input          type="button"          value="8"          class="btn"
onclick="document.calc.text.value+='8"/>
<input          type="button"          value="9"          class="btn"
onclick="document.calc.text.value+='9"/>
<input          type="button"          value="*"          class="btn"
onclick="document.calc.text.value+='*"/>
</div>
```

```
<div class="first-row">
<input          type="button"          value="4"          class="btn"
onclick="document.calc.text.value+='4"/>
<input          type="button"          value="5"          class="btn"
onclick="document.calc.text.value+='5"/>
<input          type="button"          value="6"          class="btn"
onclick="document.calc.text.value+='6"/>
<input type="button" value="-" class="btn" onclick="document.calc.text.value+="-"
"/>
</div>
```

```
<div class="first-row">
<input          type="button"          value="1"          class="btn"
onclick="document.calc.text.value+='1"/>
<input          type="button"          value="2"          class="btn"
onclick="document.calc.text.value+='2"/>
<input          type="button"          value="3"          class="btn"
onclick="document.calc.text.value+='3"/>
<input          type="button"          value="+"          class="btn"
onclick="document.calc.text.value+='+"/>
</div>
```

```
<div class="first-row">
<input          type="button"          value="0"          class="btn"
onclick="document.calc.text.value+='0"/>
```

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---

```
<input          type="button"          value="."          class="btn"
onclick="document.calc.text.value+='.'"/>
<input          type="button"          value="%"          class="btn"
onclick="document.calc.text.value+='%'"/>
<input          type="button"          value="/"          class="btn"
onclick="document.calc.text.value+='/'"/>
</div>
</form>
</table>
</body>
</html>
```

Style.css

```
.btn{
padding: 15px;
font-weight: bold;
font-size: 16px;

border-radius: 3px;
background-color: #829595;
float: left;
width: 23.5%;
margin: 2px 2px;

}
.first-row{

display: inline-block;
width: 100%;
}

.container{
```

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---

```
margin: auto;
margin-top: 100px;
width: 25%;
padding: 10px;
border: 1px solid #f2f2f2;
-webkit-box-shadow: 1px 1px 4px 0px rgba(176,176,176,1);
-moz-box-shadow: 1px 1px 4px 0px rgba(176,176,176,1);
box-shadow: 1px 1px 4px 0px rgba(176,176,176,1);
background-color: #fff;
height: 450px;
background-color: 2F4F4F;
}
```

```
.result{
font-size: 24px;
padding: 24px;
margin-left: 5px;
margin-top: 20px;
margin-bottom: 25px;
font-weight: 700;
text-align: right;
width: 96%;
border: none;
background-color: #F8F8F8;
}
```

```
.header{
background-color: #829595;
padding: 10px;
color: #fff;
text-align: center;
}
```

Output :

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-----  
or.html



.....  
Question 2 : Form Field Validation

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>Registration form</title>
```

```
<style>
```

```
body{
```

```
text-align:center;
```

```
}
```

```
form{
```

```
border:1px solid gray;
```

```
padding: 60px;
```

```
margin: 40px;
```

```
}
```

```
input[type=text],input[type=password],input[type=number],input[type=date] {
```

```
width: 50%;
```

```
padding: 12px 20px;
```

```
margin: 8px 10px;
```



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---

```
display: inline-block;
border: 1px solid #ccc;
border-radius: 4px;
box-sizing: border-box;
}
input[type=submit] {
background-color: gray;
border: none;
color: white;
padding: 16px 32px;
text-decoration: none;
margin: 4px 2px;
cursor: pointer;

}

</style>
<script type="text/javascript">
function validate(){

    if ( !document.form1.name.value.match( /^[a-zA-Z- ']+$/ ) ||
document.form1.name.value.length > 30 ) {
        alert ( "Please enter your proper name" );
        return false;
    }
    else if(!document.form1.email.value.match(/^\w+([\.-]?\w+)*@\w+([\.-
]? \w+)*(\.\w{2,3})+$/)){
        alert("please enter valid email address");
```

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---

```
        return false;
    }
    else if(!document.form1.password.value.match(/^(?=.*\d)(?=.*[a-
z])(?=.*[A-Z]).{8,}$/)){
        alert("Must contain at least one number and one uppercase and
lowercase letter, and at least 8 or more characters");
        return false;
    }
    else
    if(!document.form1.conpass.value.match(document.form1.password.value)){
        alert("password must be same");
        return false;
    }
    else if(!document.form1.phoneno.value.match(/^\d{10}$/)){
        alert("please enter 10 digits");
        return false;
    }
    else {
        alert("registration is successful");
        return true;
    }
}
</script>
</head>
<body>
<form name="form1" action="#" method="post" >
<h3>Registration Form</h3>
<label>Name</label>
```

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```
-----  
<input type="text" name="name" placeholder="Enter Your Name" id="name"  
required ></br>  
<label>Email</label>  
<input type="text" name="email" placeholder="Enter Your Email ID" id="email"  
required></br>  
<label>Password</label>  
<input type="text" name="password" placeholder="Enter Your Password"  
id="password" required></br>  
<label>Confirm Password</label>  
<input type="text" name="conpass" placeholder="Re-enter Password"  
id="conpass"required></br>  
<label>Phone no</label>  
<input type="text" name="phoneno" placeholder="Enter Your Phone Number"  
id="phoneno" required></br>  
  
<input type="submit" value="submit" onclick="return validate()"/>  
</form>  
  
</body>  
</html>
```

**Output :**

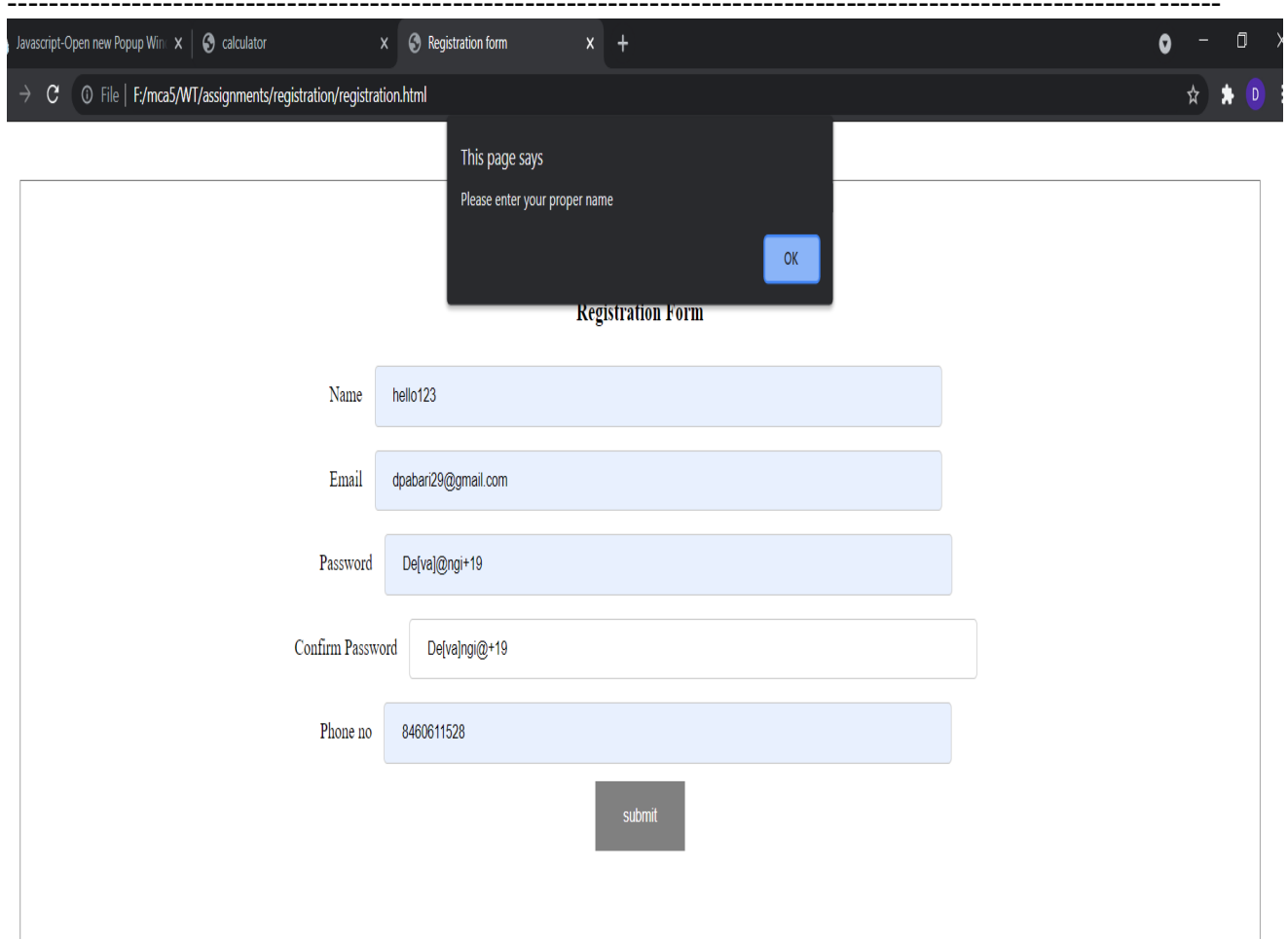
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-----



The screenshot shows a web browser window with the address bar displaying 'File | F:/mca5/WT/assignments/registration/registration.html'. The browser has three tabs: 'Javascript-Open new Popup Win', 'calculator', and 'Registration form'. A dark-themed registration form is displayed. A modal dialog box is open, showing the message 'This page says' and 'Please enter your proper name' with an 'OK' button. The form fields are: Name (hello123), Email (dpabari29@gmail.com), Password (De[va]ngi+19), Confirm Password (De[va]ngi+19), and Phone no (8460611528). A 'submit' button is at the bottom.

Registration Form

Name hello123

Email dpabari29@gmail.com

Password De[va]ngi+19

Confirm Password De[va]ngi+19

Phone no 8460611528

submit

-----

**Question 3 : Image change on mouse over event**

```
<html>
<head>
  <title>Image Change</title>
  <script>
    function changeimage(){
```

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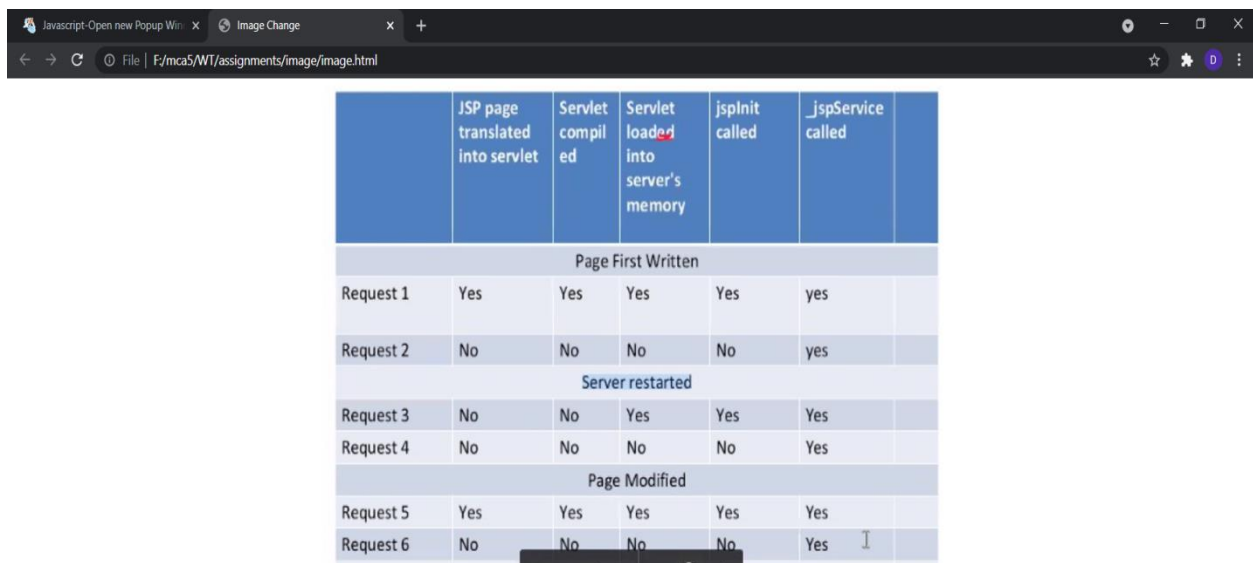
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```
var image = document.getElementById("image");
if(image.src==="file:///F:/mca5/WT/assignments/image/1.jpeg"){
    image.src="2.jpeg";
}else{
    image.src="1.jpeg";
}
}
</script>
</head>
<body>
    
</body>
</html>
```

Output :



	JSP page translated into servlet	Servlet compiled	Servlet loaded into server's memory	jsplnit called	_jspService called	
Page First Written						
Request 1	Yes	Yes	Yes	Yes	yes	
Request 2	No	No	No	No	yes	
Server restarted						
Request 3	No	No	Yes	Yes	Yes	
Request 4	No	No	No	No	Yes	
Page Modified						
Request 5	Yes	Yes	Yes	Yes	Yes	
Request 6	No	No	No	No	Yes	

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-----  
.....  
Question 4 : Random Image change on mouse over event

```
<html>
<head>
  <title>Image Change</title>
  <script>
    function changeimage(){
      var image = document.getElementById("image");
      var fileNameList = ["1.jpeg","2.jpeg","3.jpeg"];
      image.src=fileNameList[Math.floor(Math.random() * (3 - 0) ) + 0];
    }
  </script>
</head>
<body>
  
</body>
</html>
```

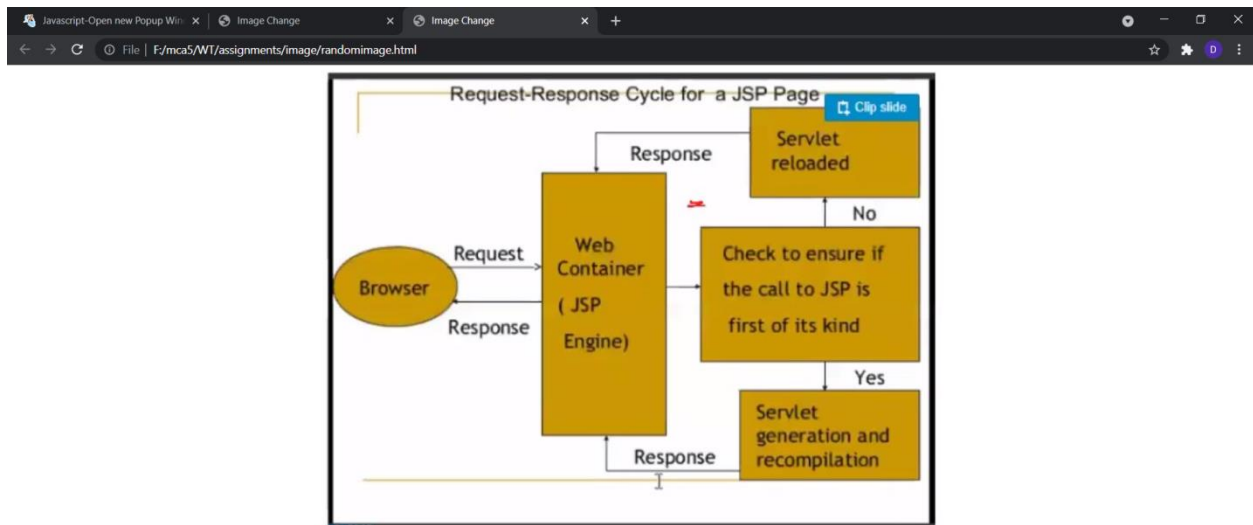
Output :

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Question 5 : Display your browser properties

```
<html>
<head>
  <title> Browser property</title>
</head>
<body>
  <p id="example"></p>

  <script type="text/javascript">
```

```
property = "<p>Browser CodeName: " + navigator.appCodeName + "</p>";
property+= "<p>Browser Name: " + navigator.appName + "</p>";
property+= "<p>Browser Version: " + navigator.appVersion + "</p>";
property+= "<p>Cookies Enabled: " + navigator.cookieEnabled + "</p>";
```

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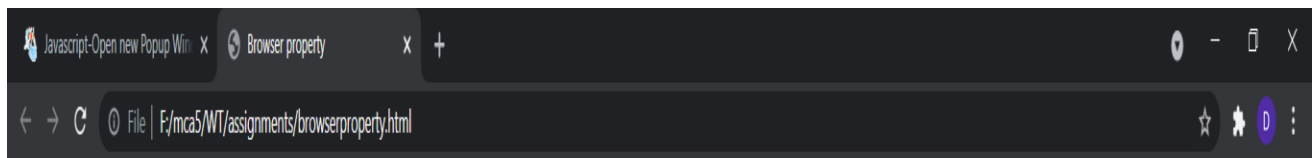
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---

```
property+= "<p>Platform: " + navigator.platform + "</p>";
property+= "<p>User-agent header: " + navigator.userAgent + "</p>";

document.getElementById("example").innerHTML=property;
</script>
</body>
</html>
```

**Output :**



Browser CodeName: Mozilla

Browser Name: Netscape

Browser Version: 5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/93.0.4577.63 Safari/537.36

Cookies Enabled: true

Platform: Win32

User-agent header: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/93.0.4577.63 Safari/537.36



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-----  
.....  
Qusetion 6 : Open a new window on button click event

```
<html>
<head>
  <title> click event</title>
  <script>
    function openwindow(p){
      window.open(p);
    }
  </script>
</head>
<body>
  <form method="get">
    Enter a path to open new window <input type="text" name="path"/>
    <input type="button" value="submit"
onclick="openwindow(path.value)"/>
  </form>
</body>
</html>
```

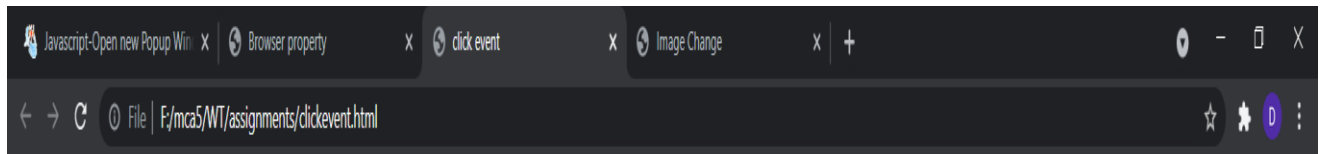
Output :

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Enter a path to open new window:

je/image.html						
	JSP page translated into servlet	Servlet compiled	Servlet loaded into server's memory	jspInit called	_jspService called	
Page First Written						
Request 1	Yes	Yes	Yes	Yes	yes	
Request 2	No	No	No	No	yes	
Server restarted						
Request 3	No	No	Yes	Yes	Yes	
Request 4	No	No	No	No	Yes	
Page Modified						
Request 5	Yes	Yes	Yes	Yes	Yes	
Request 6	No	No	No	No	Yes	I

Question 7 : Move values from one list box to another

```
<html>
  <head>
    <title>Combo Box Demo</title>
    <script src="movevalues.js">
    </script>
  </head>
  <body>
    <center>
      <select id="list1" MULTIPLE>
        <option>Red</option>
        <option>Blue</option>
        <option>yellow</option>
        <option>Green</option>
      </select>
```

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```
-----
                <input          type="button"          value="Move          Left"
onclick="moveleft();">
                <input          type="button"          value="Move          Right"
onclick="moveright();">
                <select id="list2" MULTIPLE>
                    <option>White</option>
                    <option>Black</option>
                    <option>Pink</option>
                    <option>Purple</option>
                </select>

            </center>
        </body>
</html>
```

Movevalues.js

```
function moveleft(){

    var list2 = document.getElementById("list2");
    var options="";

    for(var i=list2.options.length - 1;i >= 0;i--){
        if(list2[i].selected){
            var newOption = document.createElement("option");
            newOption.text = list2[i].value;
            list1.add(newOption);
            list2.remove(i);
        }
    }
}

function moveright(){
    var list1 = document.getElementById("list1");
```

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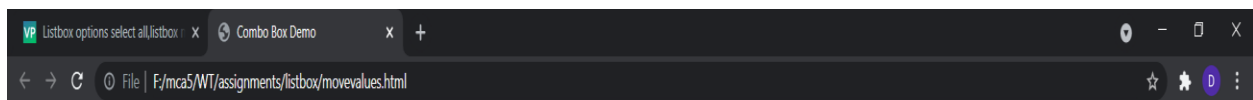
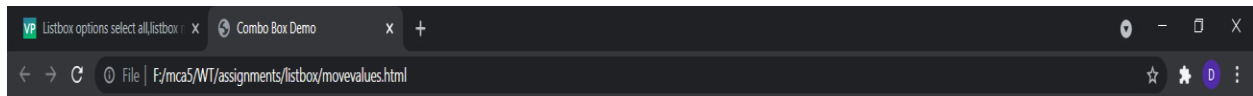
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```
var options="";
for(var i=list1.options.length - 1;i >= 0;i--){
    if(list1[i].selected){
        var newOption = document.createElement("option");
        newOption.text = list1[i].value;
        list2.add(newOption);
        list1.remove(i);
    }
}
}
```

Output :



Question 8 : Make country, state and city combo box and fill these combo boxes according to user's choice of country.

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---

```
<html>
<head>

<title>User's Location</title>
<script src="location.js"></script>
</head>
<body>
<form name="myform" id="myForm">
Select Country: <select name="state" id="countySel" size="1"
onchange="getStateList();">
<option value="" selected="selected">Select Country</option>
</select>
<br>
<br>
Select State: <select name="countrya" id="stateSel" size="1"
onchange="getDistrictList();">
<option value="" selected="selected">Please select Country first</option>
</select>
<br>
<br>
Select District: <select name="district" id="districtSel" size="1">
<option value="" selected="selected">Please select State first</option>
</select><br><br>
<input type="submit">
</form>
</body>
</html>
```

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---

Location.js

```
var stateObject = { "India": { "Delhi": ["new Delhi", "North Delhi"], "Kerala":  
["Thiruvananthapuram", "Palakkad"], "Goa": ["North Goa", "South Goa"], },  
    "Australia": { "South Australia": ["Dunstan", "Mitchell"], "Victoria":  
["Altona", "Euroa"] },  
    "Canada": { "Alberta": ["Acadia",  
"Bighorn"], "Columbia": ["Washington", ""], },  
window.onload = function () {  
    var countySel = document.getElementById("countySel"),  
    stateSel = document.getElementById("stateSel"),  
    districtSel = document.getElementById("districtSel");  
    for (var country in stateObject) {  
        countySel.options[countySel.options.length] = new Option(country,  
country);  
    }  
    countySel.onchange = function () {  
        stateSel.length = 1; // remove all options bar first  
        districtSel.length = 1; // remove all options bar first  
        if (this.selectedIndex < 1) return; // done  
        for (var state in stateObject[this.value]) {  
            stateSel.options[stateSel.options.length] = new Option(state, state);  
        }  
    }  
    countySel.onchange(); // reset in case page is reloaded  
    stateSel.onchange = function () {  
        districtSel.length = 1; // remove all options bar first
```

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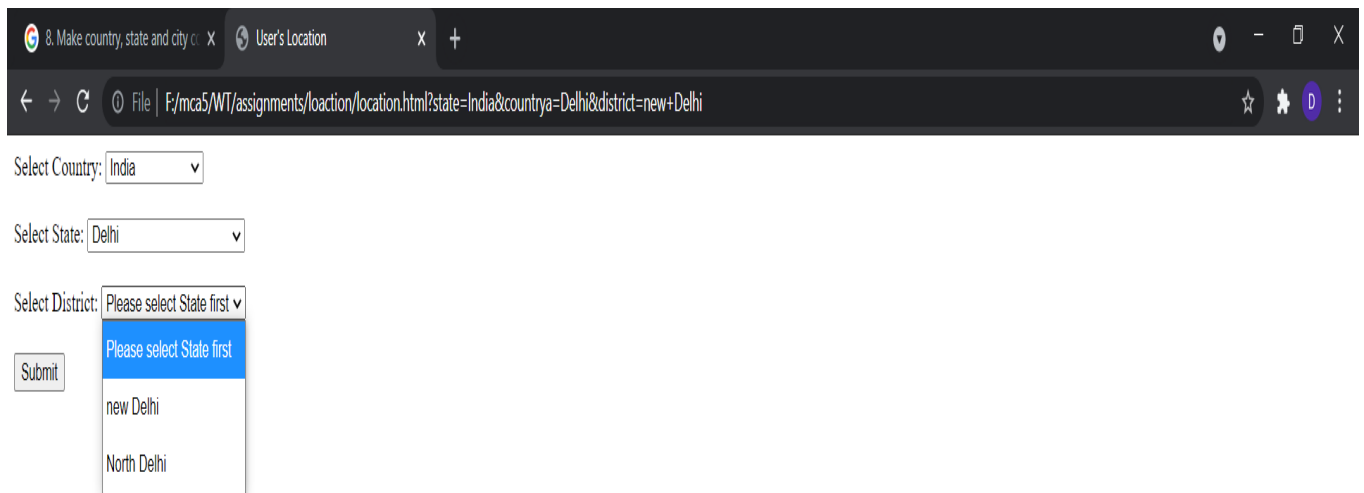
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---

```
if (this.selectedIndex < 1) return; // done
var district = stateObject[countySel.value][this.value];
for (var i = 0; i < district.length; i++) {
    districtSel.options[districtSel.options.length] = new Option(district[i],
    district[i]);
}
}
}
```

**Output :**



---

**Question 10 : Display the current time and update it after every 1 second.**

```
<html>
    <head>
```

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---

```
<title>currenttime</title>
<script>
    function getTime(){
        var currentTime = new Date();
        var currentHour = checkDigit(currentTime.getHours());
        var currentMinute = checkDigit(currentTime.getMinutes());
        var currentSecond = checkDigit(currentTime.getSeconds());
        var currentPeriod = currentHour
        document.getElementById("timeView").innerHTML=currentHour+":"+curr
entMinute+":"+currentSecond;
        setTimeout(getTime,1000);
    }

function checkDigit(digit){
    if(digit<10){
        return "0" + digit;
    }else{
        return digit;
    }
}

</script>
</head>
<body onload="getTime()">
    <center>
        <h1 id="timeView" style="margin-top:10%;"></h1>
    </center>
</body>
</html>
```

Output :

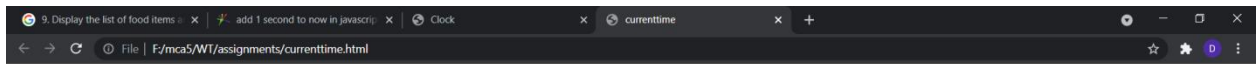


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17:59:11

---

Question 11 : Display random quotes on button click.

```
<html>
  <head>
    <title>Quote Generator</title>
    <script>
      function getquote(){
        var quotes = ["The purpose of our lives is to be happy.", "Life is what
happens when you're busy making other plans.", " Get busy living or get busy
dying.",
        "You only live once, but if you do it right, once is enough."];

        var randomquote = Math.floor(Math.random() * (quotes.length));
        document.getElementById('quoteView').innerHTML =
quotes[randomquote];
      }
    </script>
  </head>
  <body>
```

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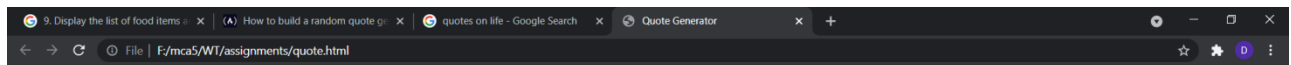
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```
-----
<center>
    <h1 style="margin-top:10%;">Click on Button to get
quote.</h1>

    <br><br>
    <div id="quoteView">
    </div><br><br>
    <input type="button" value="Get Quote"
onclick="getquote();" />
    </center>
<body>
</html>
```

**Output :**



**Click on Button to get quote.**

Get busy living or get busy dying.

Get Quote

.....

**Question 12 : Add a new entry in combo box dynamically.**

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---

```
<html>
  <head>
    <title>add value</title>
    <script>
      function addvalue() {
        var text = document.getElementById("value");
        var combo = document.getElementById("combo");

        var option = document.createElement("option");
        option.text = text.value;
        option.value = text.value;
        try {
          combo.add(option, null); //Standard
        }catch(error) {
          combo.add(option); // IE only
        }
        text.value = "";
      }
    </script>
  </head>
  <body>

    <center>
      add to combo: <input type="text" name="value" id="value"/>
      <input type="button" value="add" onclick="addvalue()">
      <br><br>
      combobox: <select name="combo" id="combo"></select>
```

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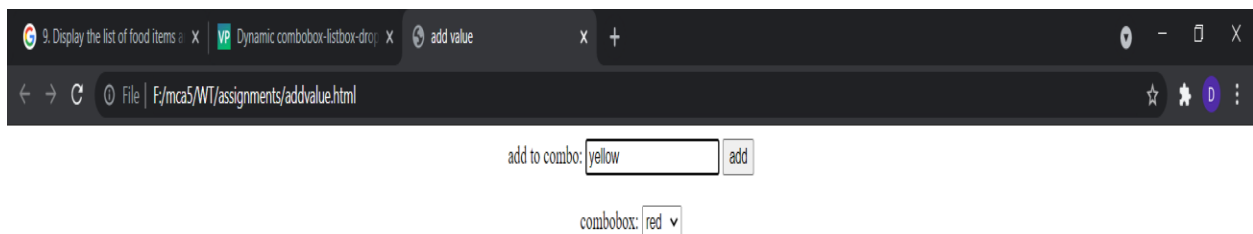
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</center>

</body>

</html>

Output :



.....  
Question 13 : To create object product, add the property Product Name, Quality and Price. Access all the property and display them.

```
<html>
<head>
  <title>Javascript Object</title>
</head>
<body>
```

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---

```
<center>
  <p id="p1"></p>
    <p id="p2"> </p>
    <p id="p3"></p>
  </center>
<script>
  var product={
    productName: "Tv",
    Quality: "Hd",
    Price: "50000"
  };
  document.getElementById("p1").innerHTML = "Product Name :
"+product.productName;
  document.getElementById("p2").innerHTML = "Product Quality :"+
product.Quality;

  document.getElementById("p3").innerHTML = "Product Price :
"+product.Price;
</script>
</body>
</html>
```

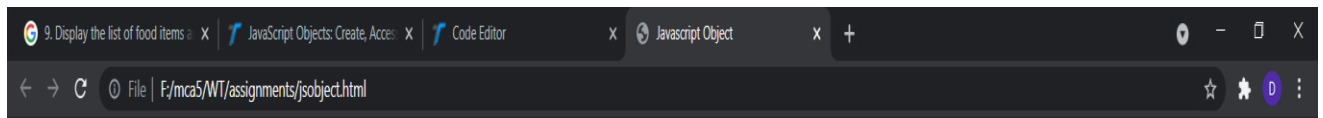
Output :

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Product Name : Tv

Product Quality : Hd

Product Price : 50000

---

**Question 14 : Write a javaScript to create object book**

- a) Add the property book name, author name
- b) Add the prototype property price.
- c) Display all the properties.

```
<html>
<head>
  <title>Javascript prototype</title>
</head>
<body>
  <center>
    <p id="p1"></p>
    <p id="p2"> </p>
    <p id="p3"></p>
```

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---

```
</center>
<script>
    function book(name,author){
        this.bookName=name;
        this.Author=author;

    }
    book.prototype.price = "200";
    const b = new book("c","balaguruswami");
    document.getElementById("p1").innerHTML = "Book Name :
"+b.bookName;
    document.getElementById("p2").innerHTML = "Author :"+
b.Author;

    document.getElementById("p3").innerHTML = " Book Price :
"+b.price;
</script>
</body>
</html>
```

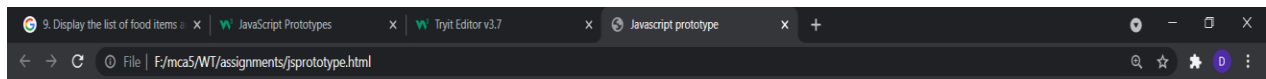
Output :

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Book Name : c

Author :balaguruswami

Book Price : 200

Question 15 : Write a javaScript program to create Parent object employee( Property : Employee Name, Employee Id, Salary) and Child object Manager (Property: Manager Name ,Branch). Inherit all the properties of the employee and display all the properties.

```
<html>
<head>
  <title>Javascript inheritance</title>
</head>
<body>
<center>
  <p id="p1"></p>
    <p id="p2"> </p>
    <p id="p3"></p>
    <p id="p4"> </p>
    <p id="p5"></p>
  </center>
<script>
  function employee(){
    this.EmployeeName="Devangi";
```



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---

```
        this.EmployeeId="23";
        this.Salary="20000";

    }
    function manager(){
        this.ManagerName="Devangi";
        this.branch="Rajkot";
    }
    manager.prototype = new employee();
    var data = new manager();
    document.write("<br>Employee Name : "+data.EmployeeName);
    document.write("<br>EmployeeId : "+ data.EmployeeId);
    document.write("<br>Salary : "+ data.Salary);
    document.write("<br>Manager Name : "+data.ManagerName);
    document.write("<br>branch : "+ data.branch);

</script>
</body>
</html>
```

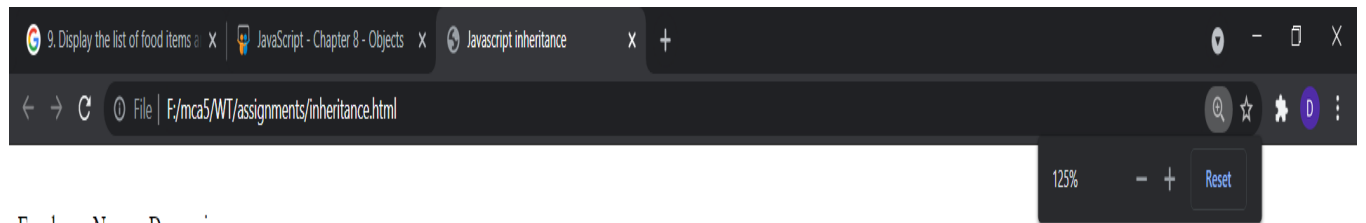
**Output :**

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Employee Name : Devangi

EmployeeId :23

Salary :20000

Manager Name : Devangi

branch :Rajkot