

Session: Introduction to JavaScript

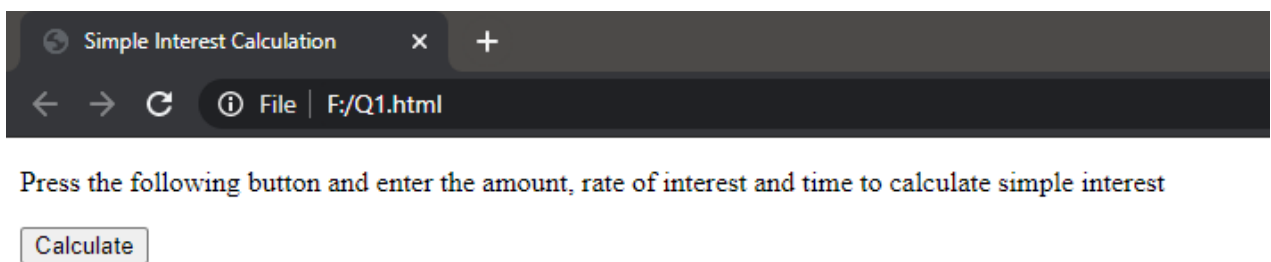
Assignment

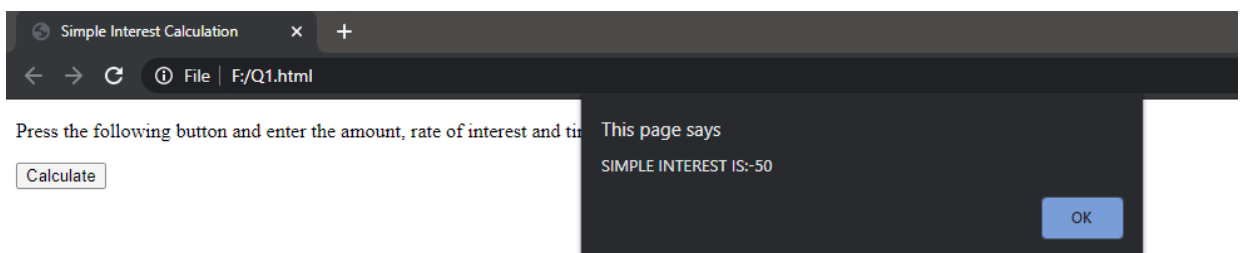
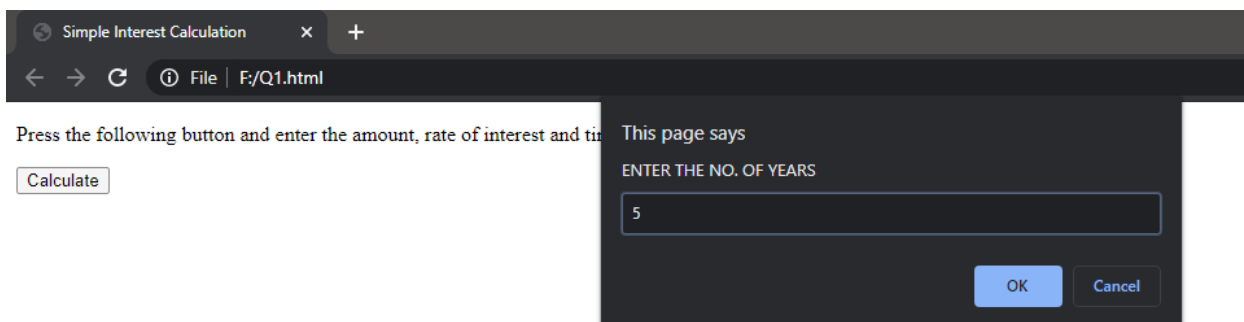
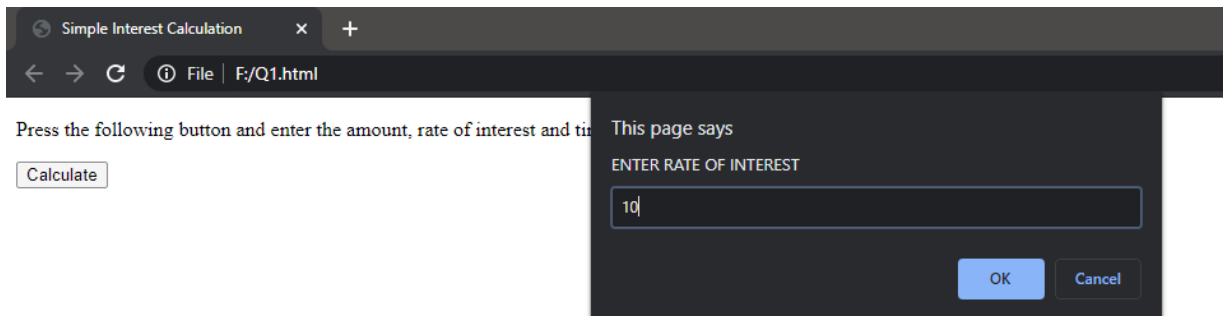
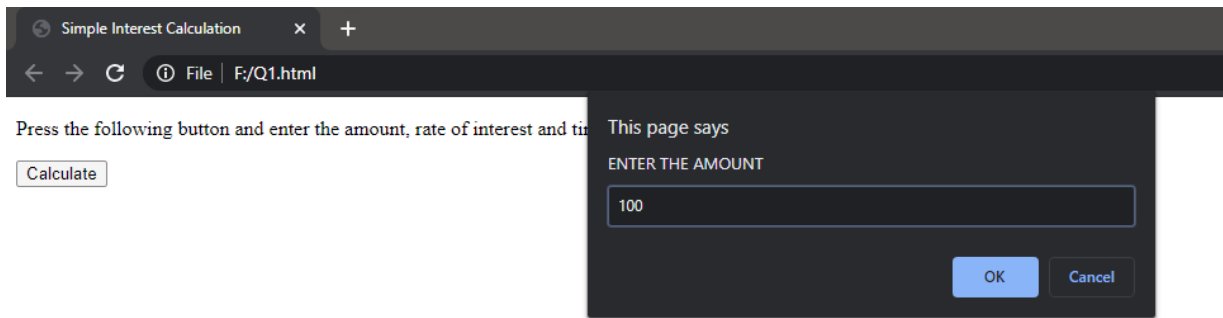
1. Prompt for amount, interest rate and no. of years and calculate simple interest.

Code

```
<!DOCTYPE html>
<html><head>
<title>Simple Interest Calculation</title>
</head>
<body>
<p> Press the following button and enter the amount, rate of interest and time to calculate simple interest<p>
<input type="button" value="Calculate" onclick="si()"><br>
<script type="text/javascript">
function si( )
{
var amt = prompt("ENTER THE AMOUNT");
var irate = prompt("ENTER RATE OF INTEREST");
var tm = prompt("ENTER THE NO. OF YEARS");
var si = (amt*irate*tm/100);
si = alert("SIMPLE INTEREST IS:-"+si);
}
</script>
</body>
</html>
```

OUTPUT





2. is palindrome string

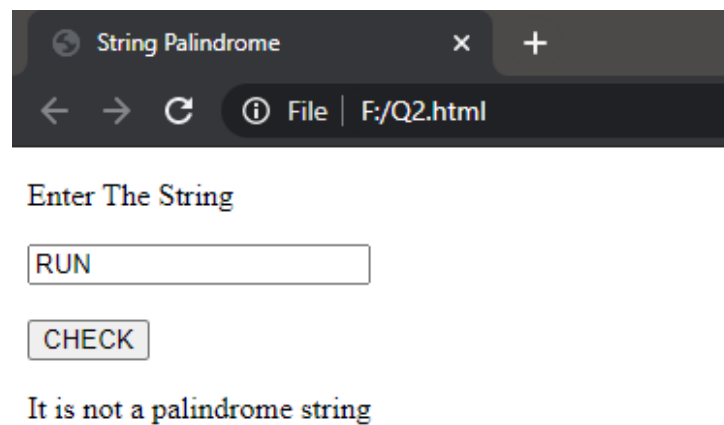
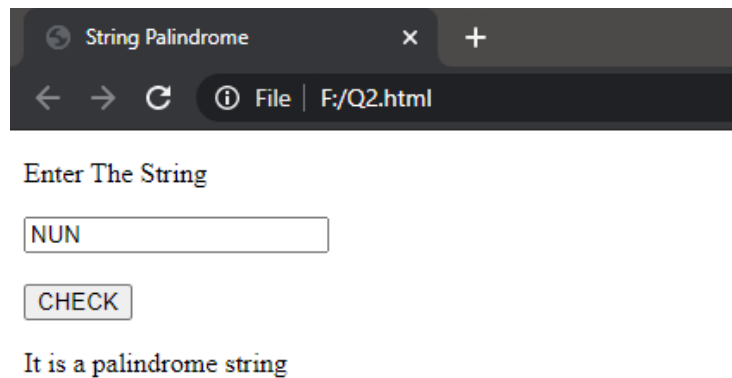
Code

```
<!DOCTYPE html>
<html>
  <head>
    <title>String Palindrome</title>
  </head>
  <body>
    <p>Enter The String</p>
    <input type="text" id="strid" required><br><br>
    <input type="button" value="CHECK" onclick="check()"><br>
    <p id="res"></p>
    <script type="text/javascript">
      function check()
      {
        var str = document.getElementById("strid").value;
        document.getElementById("res").innerHTML = checkPal(str);
      }
      function checkPal(strng)
      {
        var len = strng.length;

        for (var i = 0; i < len / 2; i++)
        {
          if (strng[i] !== strng[len - 1 - i])
          {
            return 'It is not a palindrome string';
          }
        }

        return 'It is a palindrome string';
      }
    </script>
  </body>
</html>
```

OUTPUT



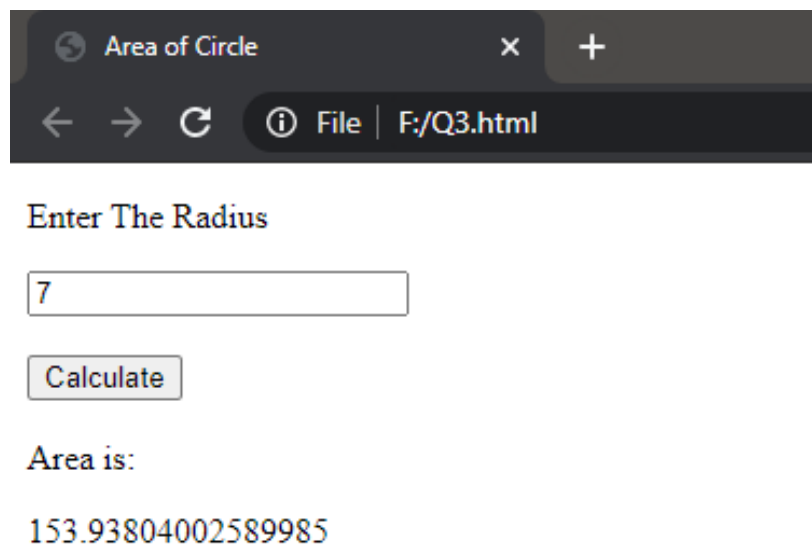
3. Area of circle

Code

```
<!DOCTYPE html>
<html>
  <head>
    <title> Area of Circle</title>
  </head>
  <body>
    <p>Enter The Radius</p>
    <input type="text" id="radid" required><br><br>
    <input type="button" value="Calculate" onclick="cal()"><br>
    <br>Area is: <p id="res"></p>
    <script type="text/javascript">
      function cal()
      {
```

```
var crad = document.getElementById("radid").value;
document.getElementById("res").innerHTML = cal_area(crad);
}
function cal_area(rad)
{
var r = rad;
var area = Math.PI*r*r;
return area;
}
</script>
</body>
</html>
```

OUTPUT

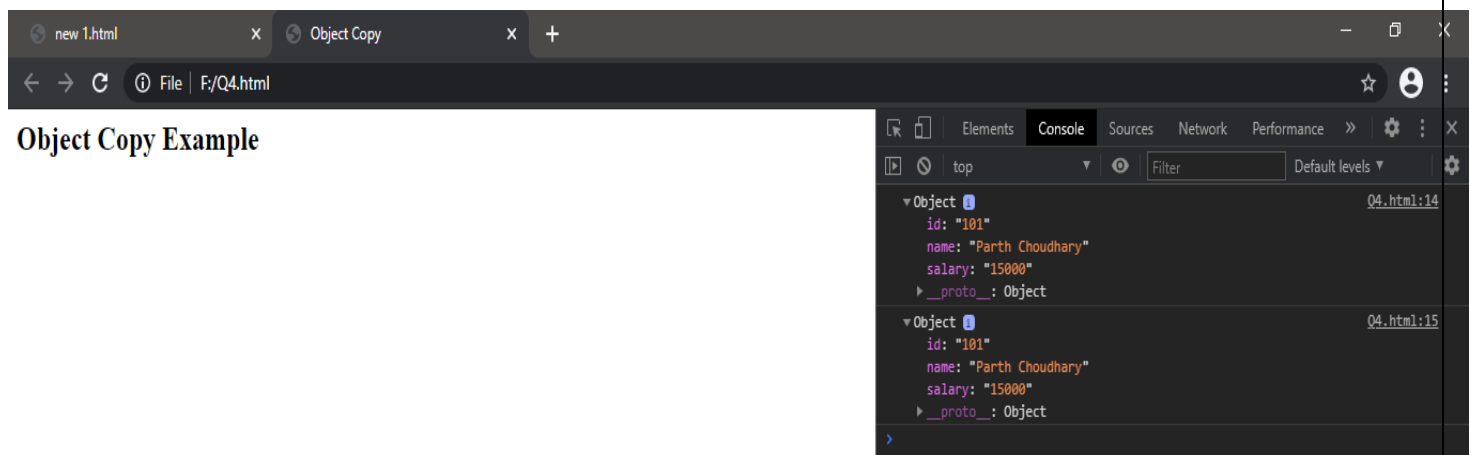


4. Copy information of one object to another and log it to console.

Code

```
<html>
<title>Object Copy </title>
<body>
<h2> Object Copy Example</h2>
<script type="text/javascript">
var emp = {
id : '101',
name : 'Parth Choudhary',
salary : '15000'
}
var worker = emp;
console.log(emp);
console.log(worker);
</script>
</body>
</html>
```

OUTPUT



5. create a list of objects of Employee with info as follow :

- Name, age, salary, DOB
- filter all employees with salary greater than 5000
- group employee on the basis of their age
- fetch employees with salary less than 1000 and age greater than 20. Then give them an increment 5 times their salary.

Code

```
<!DOCTYPE html>
<html>
<head>
  <title>Employee</title>
</head>
<body>
  <p><b>Filter all employees with salary greater than 5000</b></p><br>
  <input type="button" value="Filter" onclick="salcount()">
  <p id="p1"></p><br>
  <p><b>Group employee on the basis of their age</b></p><br>
  <input type="button" value="Group" onclick="agegrp()"><br>
  <p id="p2"></p><br>
  <p><b>Employees with salary less than 1000 and age greater than 20</b></p><br>
  <input type="button" value="Check" onclick="salinc()"><br>
  <p id="p3"></p><br>
  <p><b>Their salaries after 5 times increment</b></p><br>
  <p id="p4"></p><br>
  <script type="text/javascript">
    var Employee =
    [
      {name: 'John', age: 33, salary: 25000, dob: '05/07/1997'},
      {name: 'James', age: 57, salary: 500, dob: '13/02/1956'},
      {name: 'Clay', age: 21, salary: 700, dob: '09/12/1975'},
      {name: 'Justin', age: 17, salary: 95000, dob: '03/02/2001'},
      {name: 'Joe', age: 33, salary: 21000, dob: '11/010/2003'}
    ];
    function salcount()
    {
      var sal_filt = Employee.filter(function (res){
        if(res.salary > 5000){
          return res;
        }
      });
      document.getElementById("p1").innerHTML=JSON.stringify(sal_filt);
    }

    function agegrp()
    {
      var grp = Employee.reduce((grp, res) => {
        var g_arr = (grp[res.age] || []);
```

```

        g_arr.push(res);
        grp[res.age] = g_arr;
        return grp; }, {} );
    document.getElementById("p2").innerHTML=JSON.stringify(grp);
}
function salinc()
{
    var sal_age = Employee.filter(function (res){
        if(res.salary < 1000 && res.age > 20){
            return res;
        }
    });
    document.getElementById("p3").innerHTML=JSON.stringify(sal_age);

    for(var i in sal_age)
    {
        sal_age[i].salary*=5;
    }
    document.getElementById("p4").innerHTML=JSON.stringify(sal_age);
}
</script>
</body>
</html>

```

OUTPUT

Filter all employees with salary greater than 5000

```
[{"name":"John","age":33,"salary":25000,"dob":"05/07/1997"}, {"name":"Justin","age":17,"salary":95000,"dob":"03/02/2001"}, {"name":"Joe","age":33,"salary":21000,"dob":"11/010/2003"}]
```

Group employee on the basis of their age

```
{17:[{"name":"Justin","age":17,"salary":95000,"dob":"03/02/2001"}],21:[{"name":"Clay","age":21,"salary":700,"dob":"09/12/1975"}],33:[{"name":"John","age":33,"salary":25000,"dob":"05/07/1997"}, {"name":"Joe","age":33,"salary":21000,"dob":"11/010/2003"}],57:[{"name":"James","age":57,"salary":500,"dob":"13/02/1956"}]}
```

Employees with salary less than 1000 and age greater than 20

```
[{"name":"James","age":57,"salary":500,"dob":"13/02/1956"}, {"name":"Clay","age":21,"salary":700,"dob":"09/12/1975"}]
```

Their salaries after 5 times increment

```
[{"name":"James","age":57,"salary":2500,"dob":"13/02/1956"}, {"name":"Clay","age":21,"salary":3500,"dob":"09/12/1975"}]
```