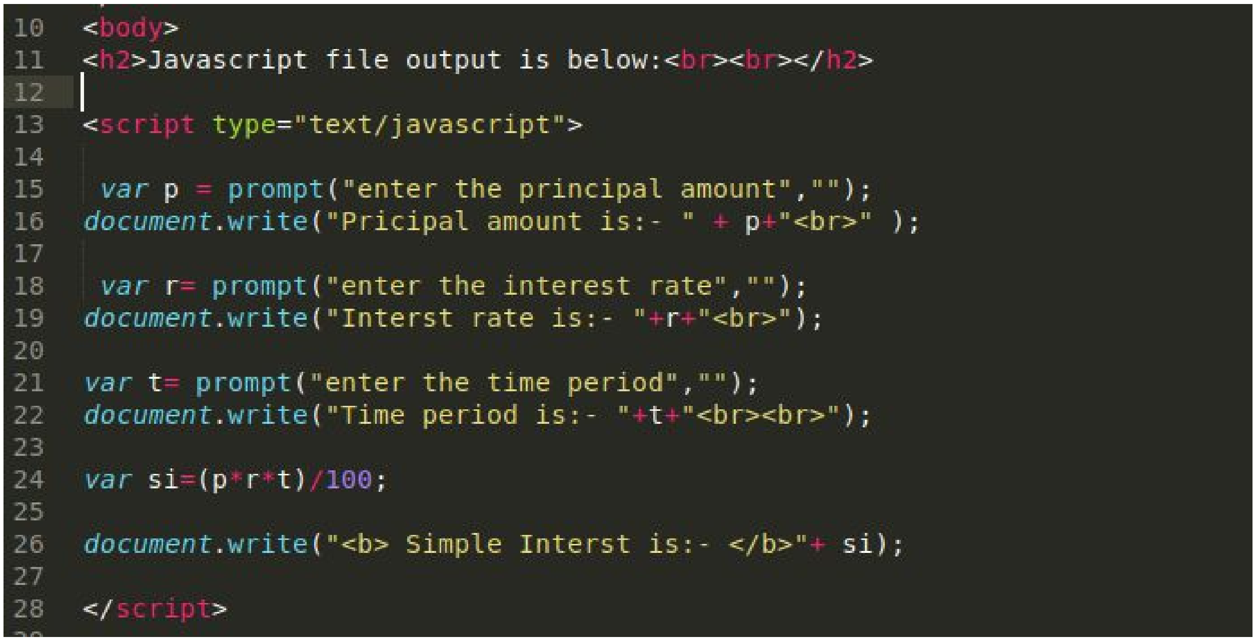
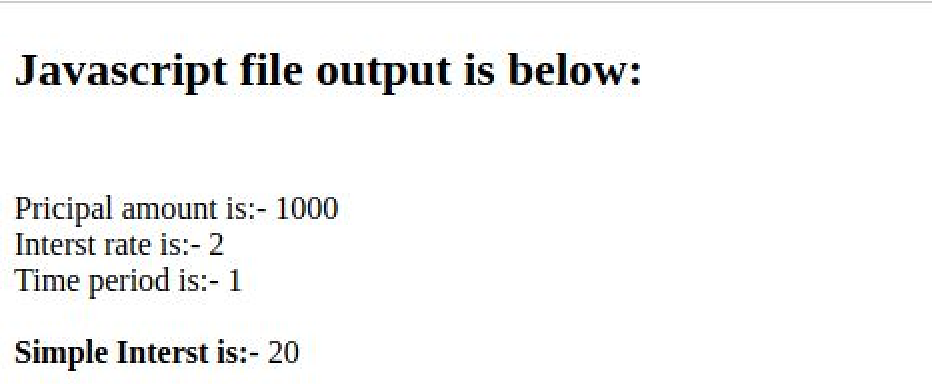
INTRODUCTION TO JAVASCRIPT

:- YUKTI SHARMA

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



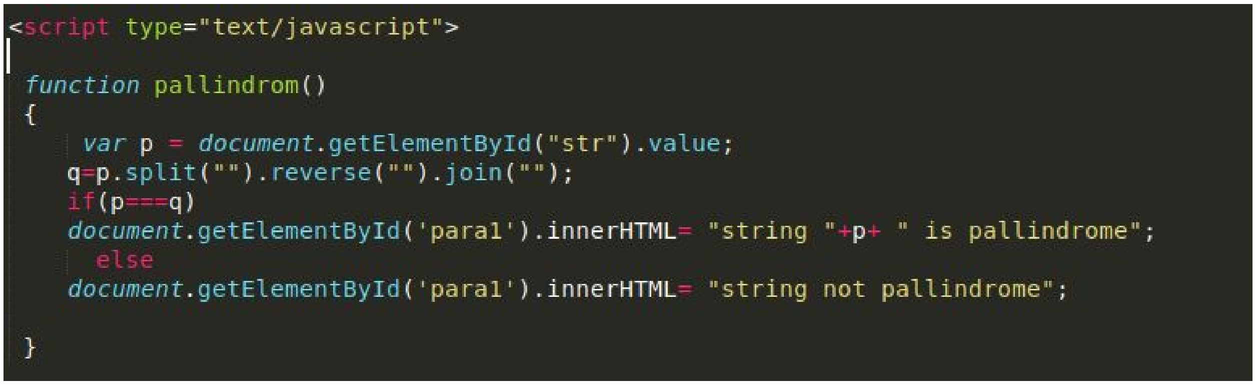
```
<body>
<h2>Javascript file output is below:<br><br></h2>


<script type="text/javascript">

 var p = prompt("enter the principal amount","");
document.write("Pricipal amount is:- " + p+"<br>" );

 var r= prompt("enter the interest rate","");
document.write("Interst rate is:- "+r+"<br>");

var t= prompt("enter the time period","");
document.write("Time period is:- "+t+"<br><br>");

var si=(p*r*t)/100;

document.write("<b> Simple Interst is:- </b>"+ si);

</script>
```



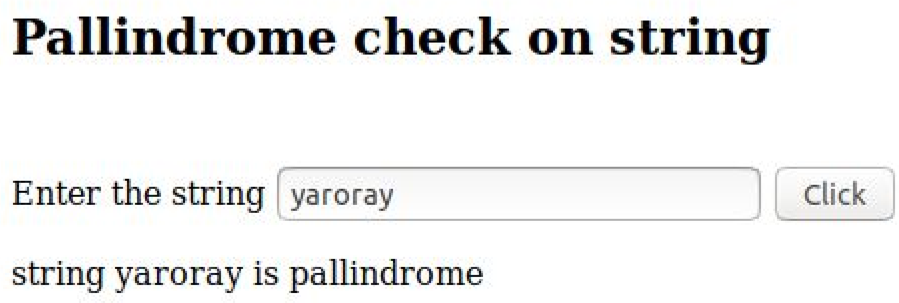
Javascript file output is below:

```
Pricipal amount is:- 1000
Interst rate is:- 2
Time period is:- 1

Simple Interst is:- 20
```

2. **is palindrome string**



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

 function pallindrom()
 {
     var p = document.getElementById("str").value;
    q=p.split("").reverse("").join("");
    if(p===q)
    document.getElementById('para1').innerHTML= "string "+p+ " is pallindrome";
      else
    document.getElementById('para1').innerHTML= "string not pallindrome";

 }
```

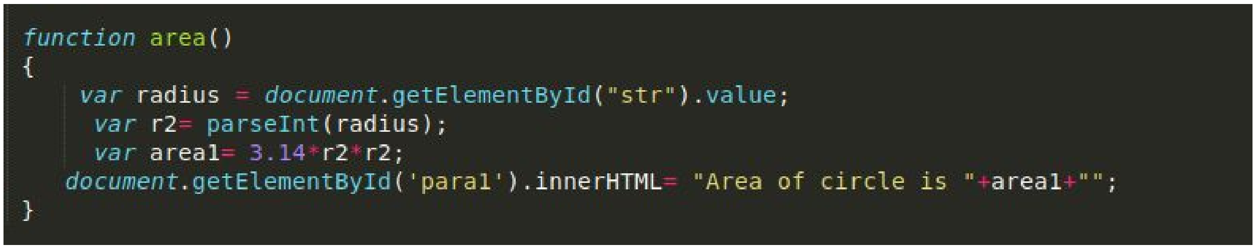


Pallindrome check on string

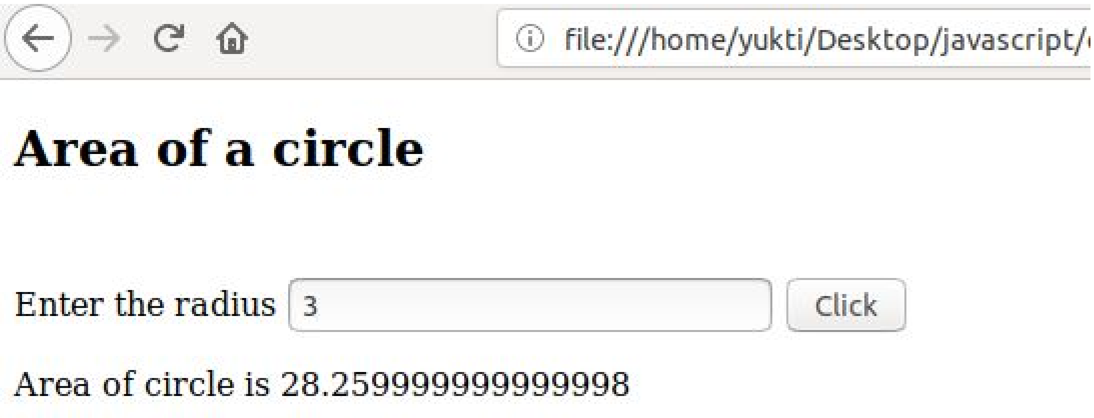
Enter the string yaroray

string yaroray is pallindrome

3. Area of circle



```
function area()
{
    var radius = document.getElementById("str").value;
     var r2= parseInt(radius);
     var area1= 3.14*r2*r2;
   document.getElementById('para1').innerHTML= "Area of circle is "+area1+"";
}
```

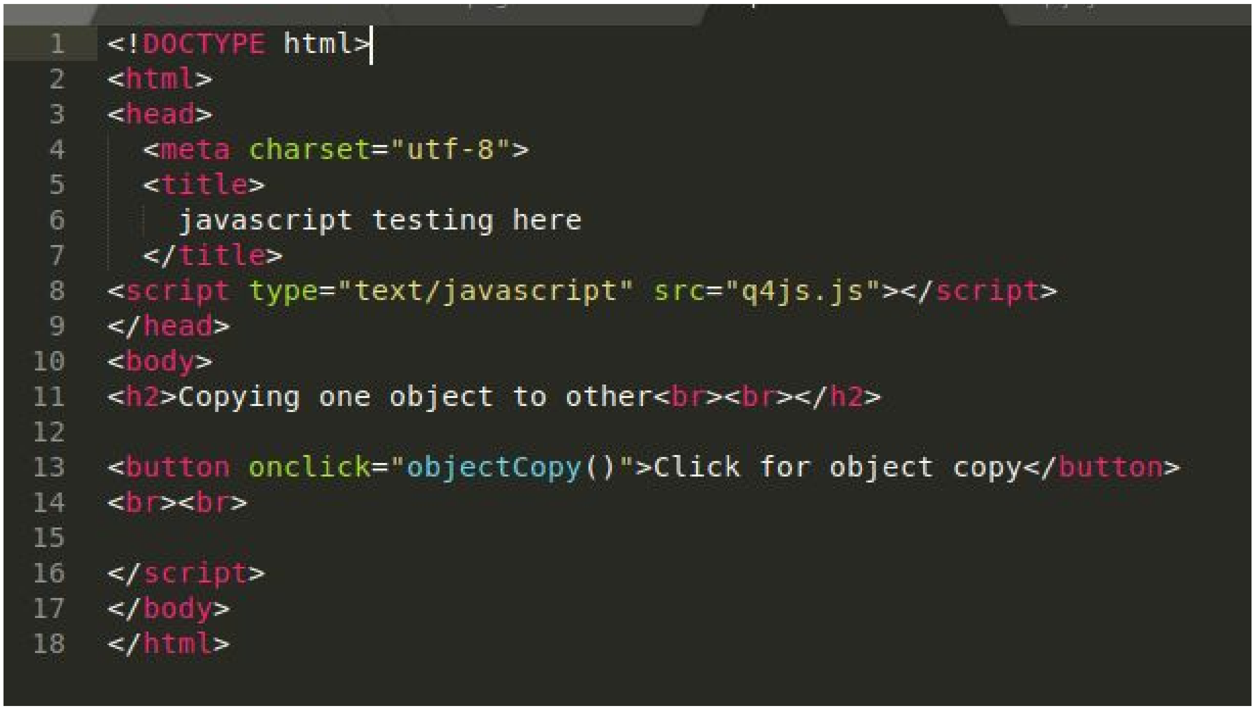


Area of a circle

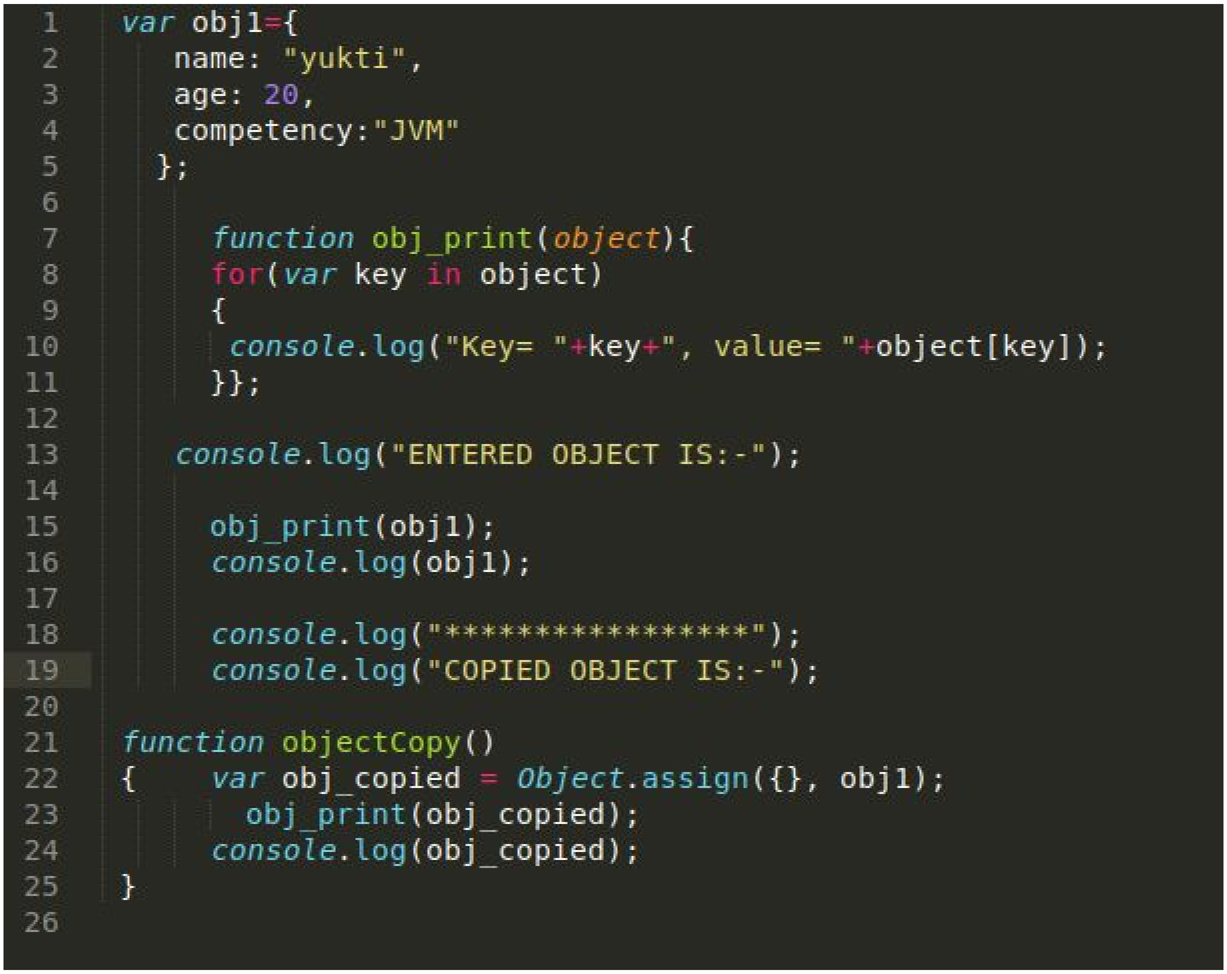
Enter the radius 3 Click

Area of circle is 28.259999999999998

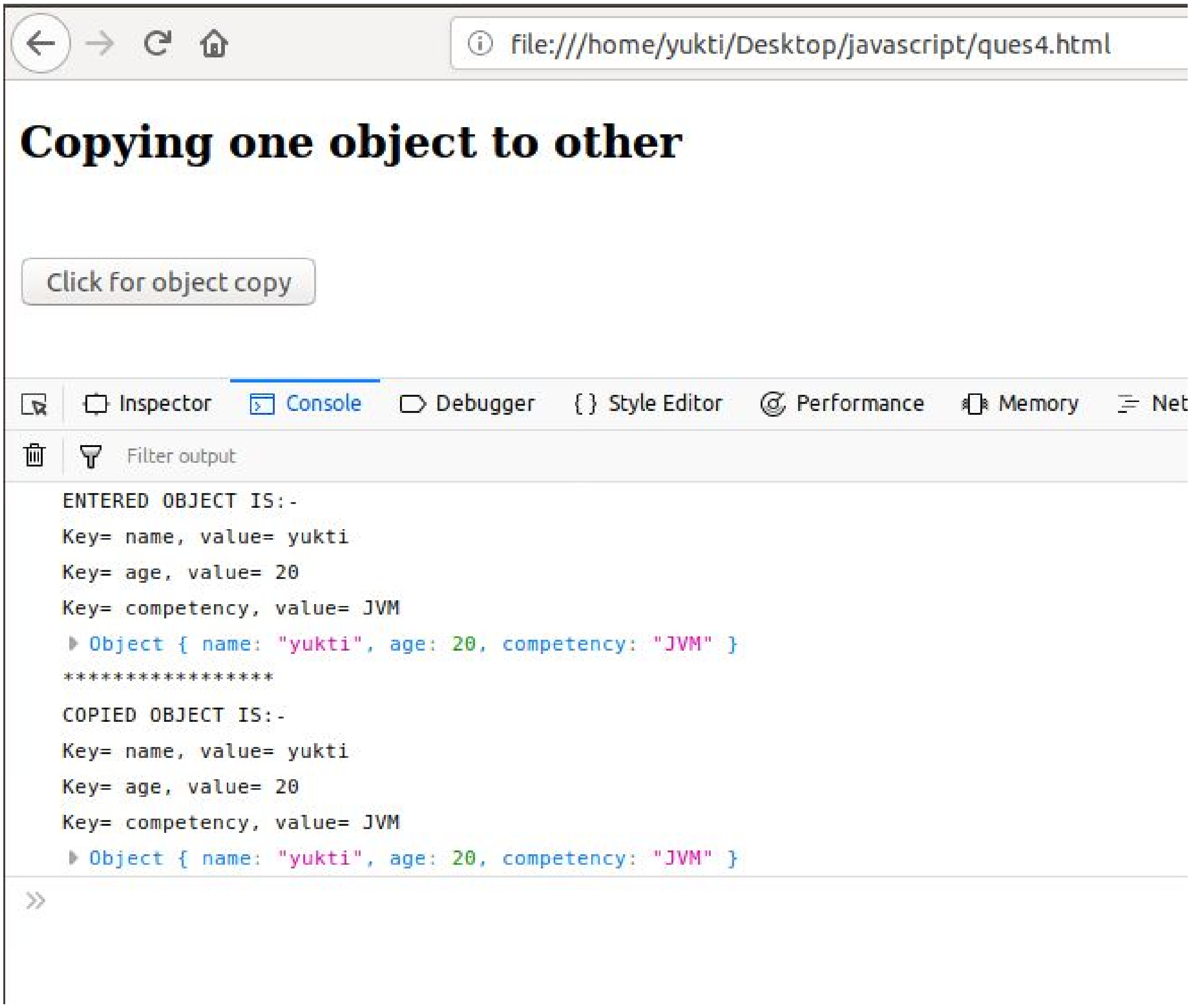
4. Copy information of one object to another and log it to console.



```html
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <title>
    javascript testing here
  </title>
<script type="text/javascript" src="q4js.js"></script>
</head>
<body>
<h2>Copying one object to other<br><br></h2>

<button onclick="objectCopy()">Click for object copy</button>
<br><br>

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



```javascript
var obj1={
    name: "yukti",
    age: 20,
    competency:"JVM"
  };

     function obj_print(object){
     for(var key in object)
     {
      console.log("Key= "+key+", value= "+object[key]);
     }};

   console.log("ENTERED OBJECT IS:-");

     obj_print(obj1);
     console.log(obj1);

     console.log("****************");
     console.log("COPIED OBJECT IS:-");

function objectCopy()
{    var obj_copied = Object.assign({}, obj1);
       obj_print(obj_copied);
     console.log(obj_copied);
}
```

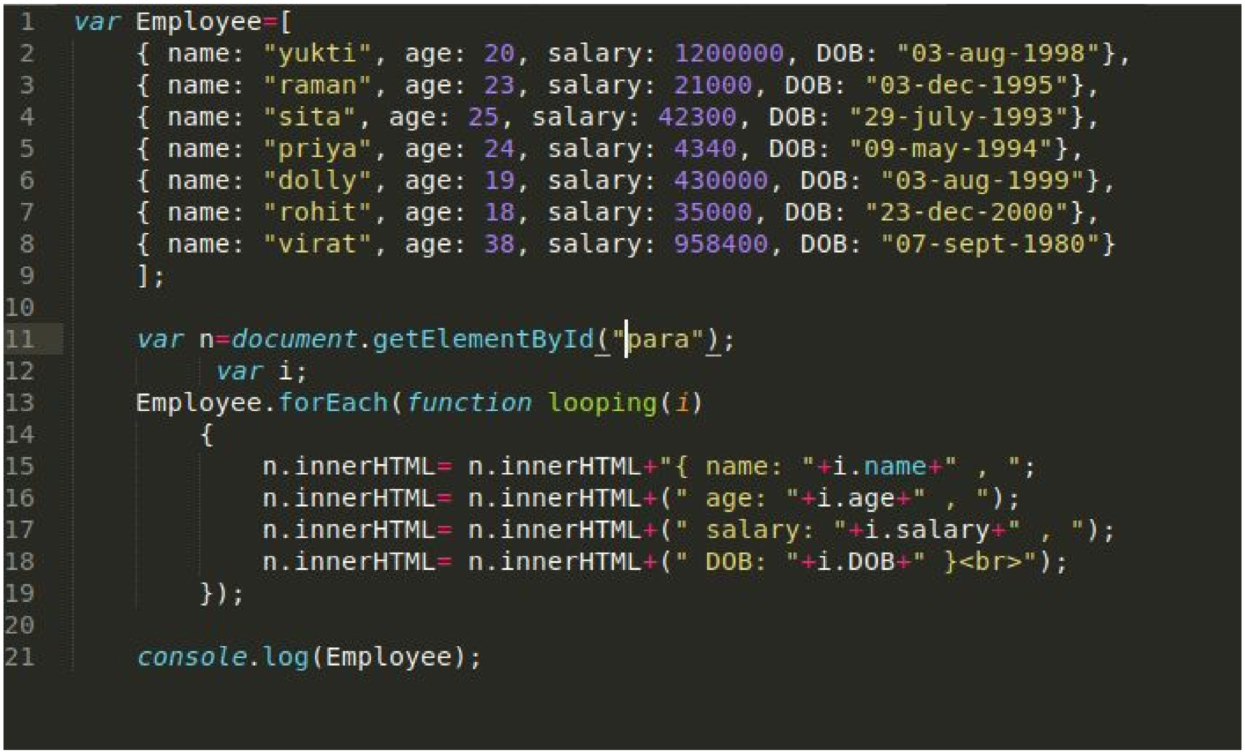


Copying one object to other

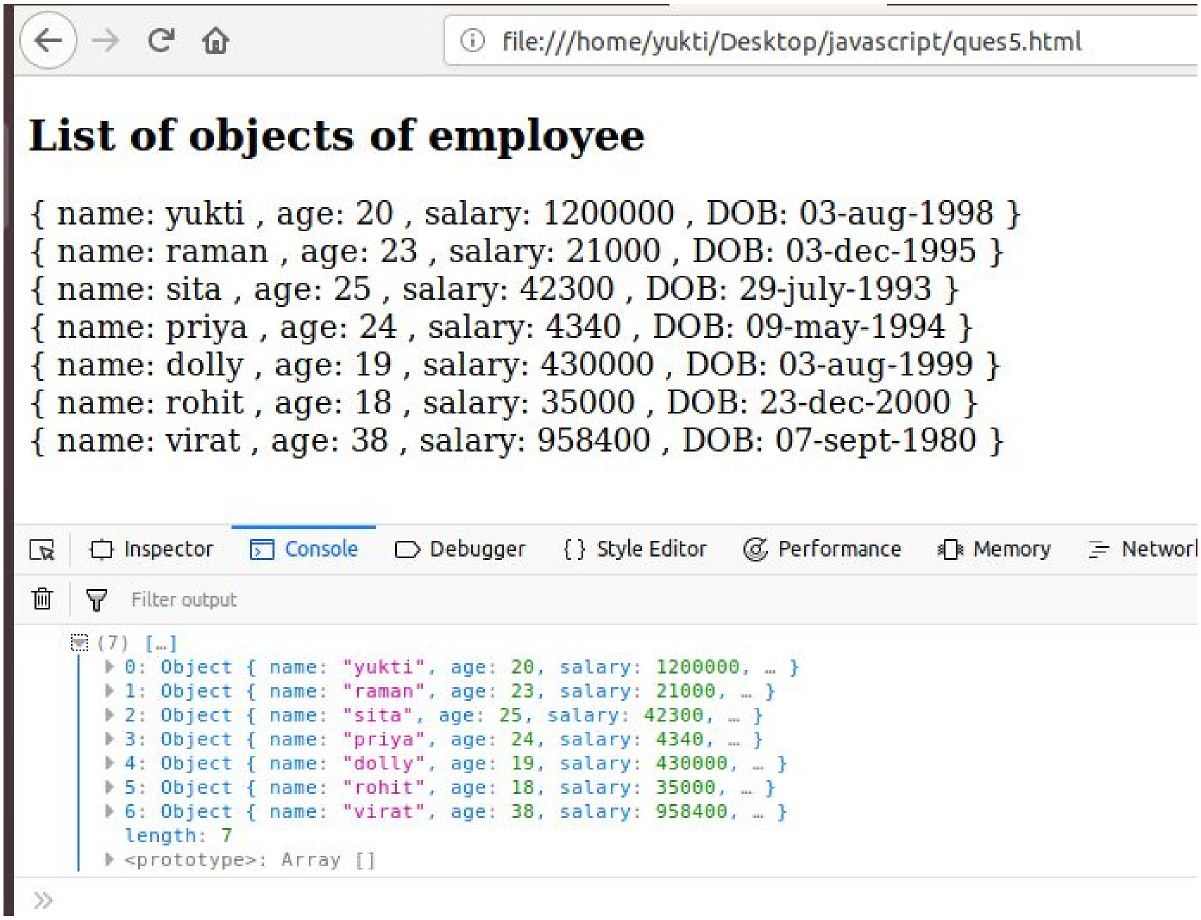
```
ENTERED OBJECT IS:-
Key= name, value= yukti
Key= age, value= 20
Key= competency, value= JVM
▶ Object { name: "yukti", age: 20, competency: "JVM" }
*****************
COPIED OBJECT IS:-
Key= name, value= yukti
Key= age, value= 20
Key= competency, value= JVM
▶ Object { name: "yukti", age: 20, competency: "JVM" }
```

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

- **Name, age, salary ,DOB**



```
var Employee=[
    { name: "yukti", age: 20, salary: 1200000, DOB: "03-aug-1998"},
    { name: "raman", age: 23, salary: 21000, DOB: "03-dec-1995"},
    { name: "sita", age: 25, salary: 42300, DOB: "29-july-1993"},
    { name: "priya", age: 24, salary: 4340, DOB: "09-may-1994"},
    { name: "dolly", age: 19, salary: 430000, DOB: "03-aug-1999"},
    { name: "rohit", age: 18, salary: 35000, DOB: "23-dec-2000"},
    { name: "virat", age: 38, salary: 958400, DOB: "07-sept-1980"}
    ];

    var n=document.getElementById("para");
         var i;
    Employee.forEach(function looping(i)
        {
            n.innerHTML= n.innerHTML+"{ name: "+i.name+" , ";
            n.innerHTML= n.innerHTML+(" age: "+i.age+" , ");
            n.innerHTML= n.innerHTML+(" salary: "+i.salary+" , ");
            n.innerHTML= n.innerHTML+(" DOB: "+i.DOB+" }<br>");
        });

    console.log(Employee);
```



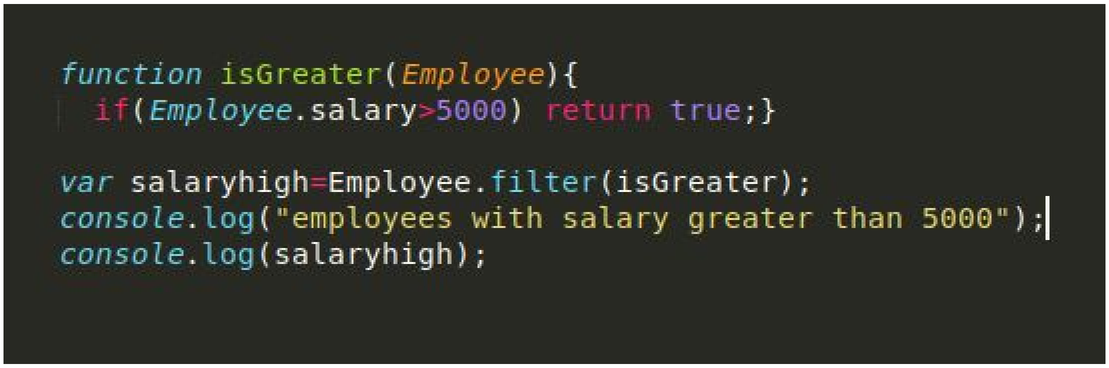
file:///home/yukti/Desktop/javascript/ques5.html

List of objects of employee

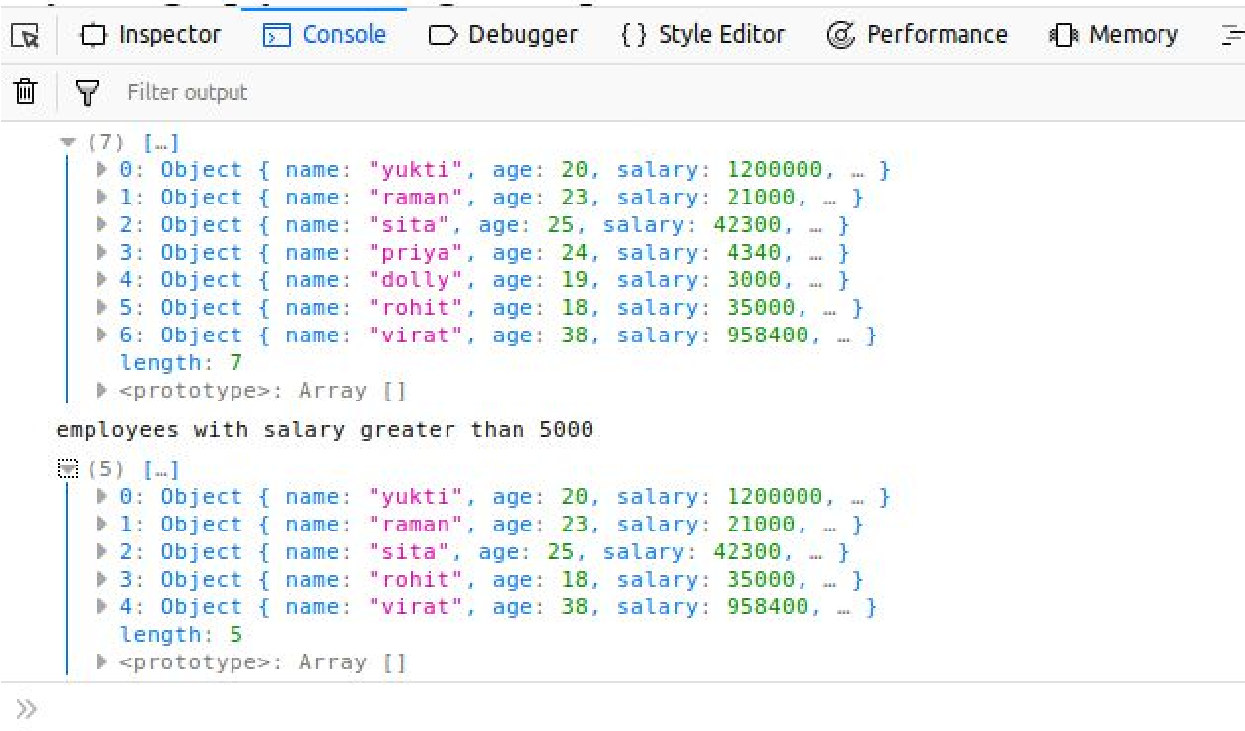
{ name: yukti , age: 20 , salary: 1200000 , DOB: 03-aug-1998 }
{ name: raman , age: 23 , salary: 21000 , DOB: 03-dec-1995 }
{ name: sita , age: 25 , salary: 42300 , DOB: 29-july-1993 }
{ name: priya , age: 24 , salary: 4340 , DOB: 09-may-1994 }
{ name: dolly , age: 19 , salary: 430000 , DOB: 03-aug-1999 }
{ name: rohit , age: 18 , salary: 35000 , DOB: 23-dec-2000 }
{ name: virat , age: 38 , salary: 958400 , DOB: 07-sept-1980 }

```
(7) […]
  ▶ 0: Object { name: "yukti", age: 20, salary: 1200000, … }
  ▶ 1: Object { name: "raman", age: 23, salary: 21000, … }
  ▶ 2: Object { name: "sita", age: 25, salary: 42300, … }
  ▶ 3: Object { name: "priya", age: 24, salary: 4340, … }
  ▶ 4: Object { name: "dolly", age: 19, salary: 430000, … }
  ▶ 5: Object { name: "rohit", age: 18, salary: 35000, … }
  ▶ 6: Object { name: "virat", age: 38, salary: 958400, … }
    length: 7
  ▶ <prototype>: Array []
»
```

- **filter all employees with salary greater than 5000**

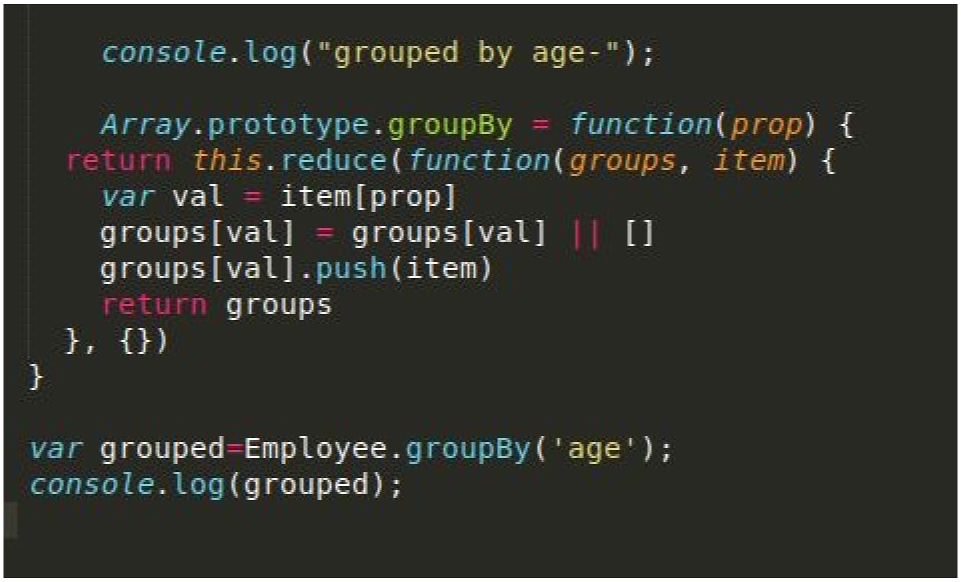


```
function isGreater(Employee){
  if(Employee.salary>5000) return true;}

var salaryhigh=Employee.filter(isGreater);
console.log("employees with salary greater than 5000");
console.log(salaryhigh);
```

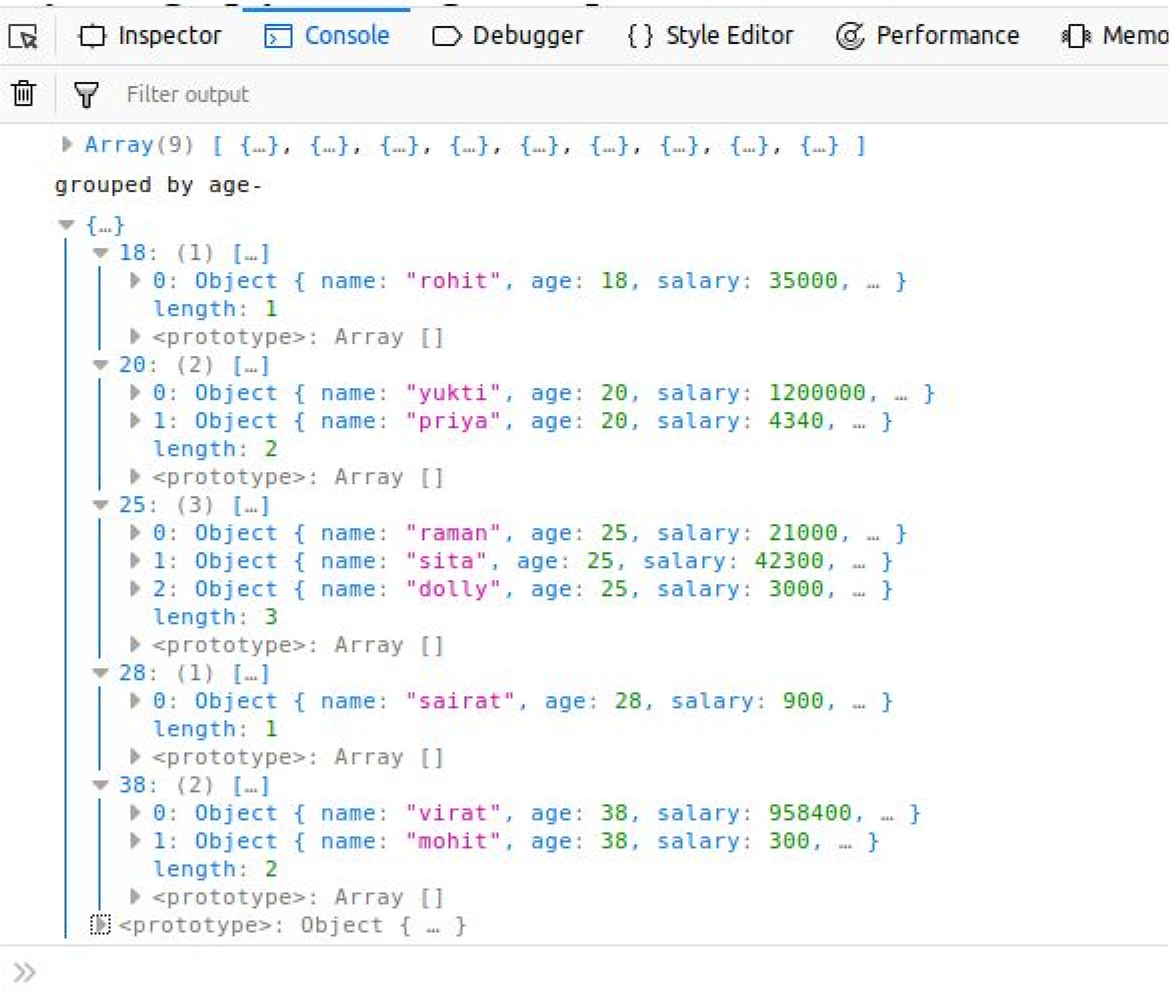


```
▼ (7) […]
  ▶ 0: Object { name: "yukti", age: 20, salary: 1200000, … }
  ▶ 1: Object { name: "raman", age: 23, salary: 21000, … }
  ▶ 2: Object { name: "sita", age: 25, salary: 42300, … }
  ▶ 3: Object { name: "priya", age: 24, salary: 4340, … }
  ▶ 4: Object { name: "dolly", age: 19, salary: 3000, … }
  ▶ 5: Object { name: "rohit", age: 18, salary: 35000, … }
  ▶ 6: Object { name: "virat", age: 38, salary: 958400, … }
    length: 7
  ▶ <prototype>: Array []
employees with salary greater than 5000
  (5) […]
  ▶ 0: Object { name: "yukti", age: 20, salary: 1200000, … }
  ▶ 1: Object { name: "raman", age: 23, salary: 21000, … }
  ▶ 2: Object { name: "sita", age: 25, salary: 42300, … }
  ▶ 3: Object { name: "rohit", age: 18, salary: 35000, … }
  ▶ 4: Object { name: "virat", age: 38, salary: 958400, … }
    length: 5
  ▶ <prototype>: Array []
»
```

- **group employee on the basis of their age**

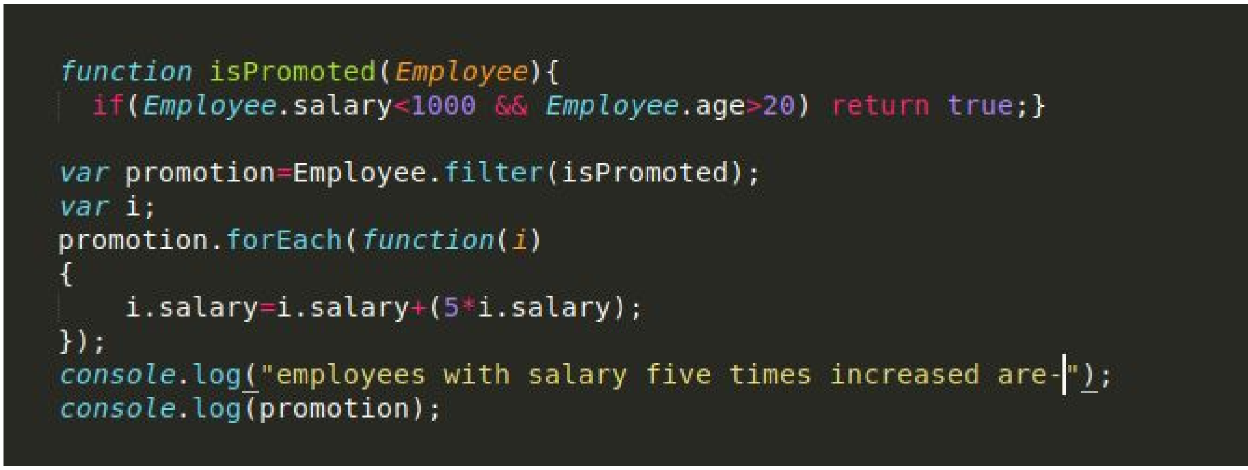


```
    console.log("grouped by age-");

    Array.prototype.groupBy = function(prop) {
  return this.reduce(function(groups, item) {
    var val = item[prop]
    groups[val] = groups[val] || []
    groups[val].push(item)
    return groups
  }, {})
}

var grouped=Employee.groupBy('age');
console.log(grouped);
```

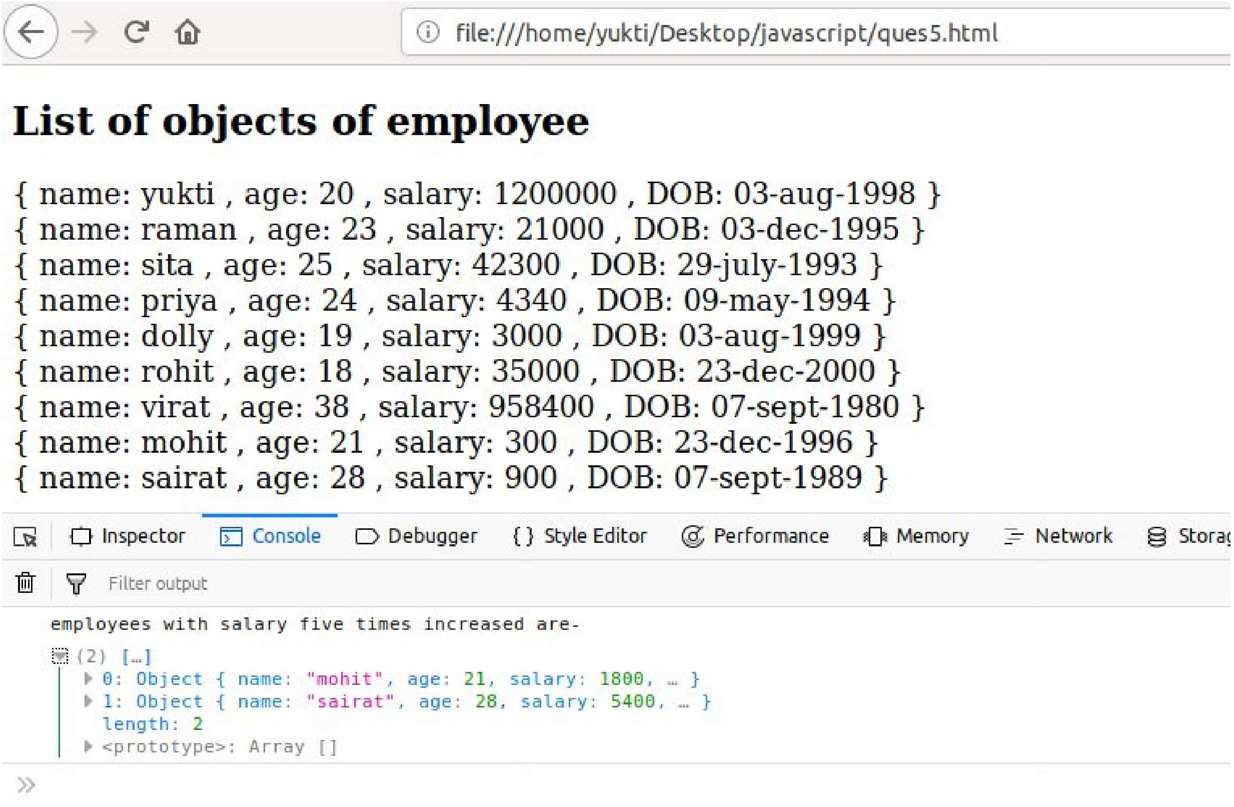


```
 ▶ Array(9) [ {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…}, {…} ]
grouped by age-
 ▼ {…}
   ▼ 18: (1) […]
     ▶ 0: Object { name: "rohit", age: 18, salary: 35000, … }
       length: 1
     ▶ <prototype>: Array []
   ▼ 20: (2) […]
     ▶ 0: Object { name: "yukti", age: 20, salary: 1200000, … }
     ▶ 1: Object { name: "priya", age: 20, salary: 4340, … }
       length: 2
     ▶ <prototype>: Array []
   ▼ 25: (3) […]
     ▶ 0: Object { name: "raman", age: 25, salary: 21000, … }
     ▶ 1: Object { name: "sita", age: 25, salary: 42300, … }
     ▶ 2: Object { name: "dolly", age: 25, salary: 3000, … }
       length: 3
     ▶ <prototype>: Array []
   ▼ 28: (1) […]
     ▶ 0: Object { name: "sairat", age: 28, salary: 900, … }
       length: 1
     ▶ <prototype>: Array []
   ▼ 38: (2) […]
     ▶ 0: Object { name: "virat", age: 38, salary: 958400, … }
     ▶ 1: Object { name: "mohit", age: 38, salary: 300, … }
       length: 2
     ▶ <prototype>: Array []
   ▶ <prototype>: Object { … }
»
```

- **fetch employees with salary less than 1000 and age greater than 20. Then give them an increment 5 times their salary.**



```
function isPromoted(Employee){
  if(Employee.salary<1000 && Employee.age>20) return true;}

var promotion=Employee.filter(isPromoted);
var i;
promotion.forEach(function(i)
{
    i.salary=i.salary+(5*i.salary);
});
console.log("employees with salary five times increased are-");
console.log(promotion);
```



List of objects of employee

{ name: yukti , age: 20 , salary: 1200000 , DOB: 03-aug-1998 }
{ name: raman , age: 23 , salary: 21000 , DOB: 03-dec-1995 }
{ name: sita , age: 25 , salary: 42300 , DOB: 29-july-1993 }
{ name: priya , age: 24 , salary: 4340 , DOB: 09-may-1994 }
{ name: dolly , age: 19 , salary: 3000 , DOB: 03-aug-1999 }
{ name: rohit , age: 18 , salary: 35000 , DOB: 23-dec-2000 }
{ name: virat , age: 38 , salary: 958400 , DOB: 07-sept-1980 }
{ name: mohit , age: 21 , salary: 300 , DOB: 23-dec-1996 }
{ name: sairat , age: 28 , salary: 900 , DOB: 07-sept-1989 }

```
employees with salary five times increased are-
(2) […]
  0: Object { name: "mohit", age: 21, salary: 1800, … }
  1: Object { name: "sairat", age: 28, salary: 5400, … }
  length: 2
  <prototype>: Array []
```