

Exercise for Introduction to Javascript

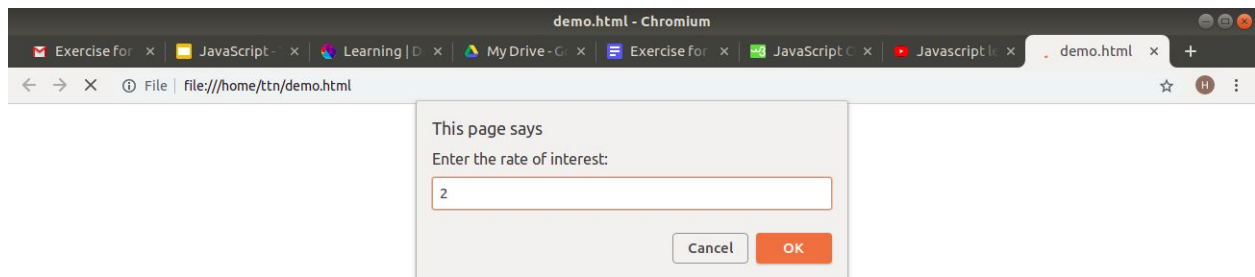
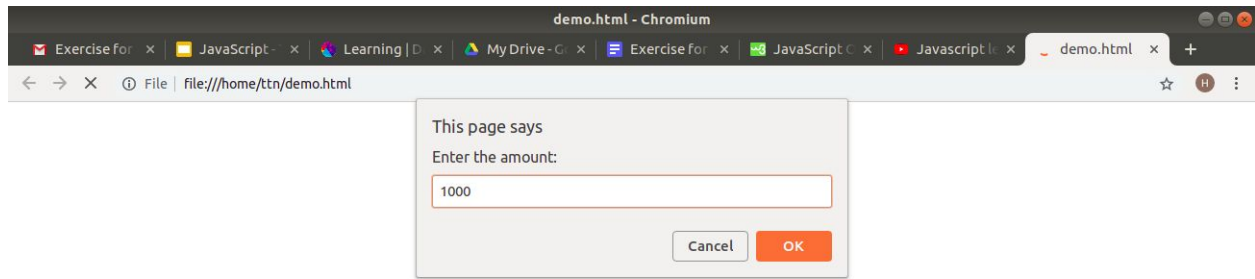
1. Prompt for amount, interest rate and no. of years and calculate simple interest.

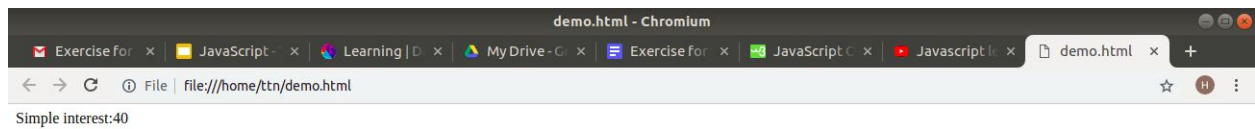
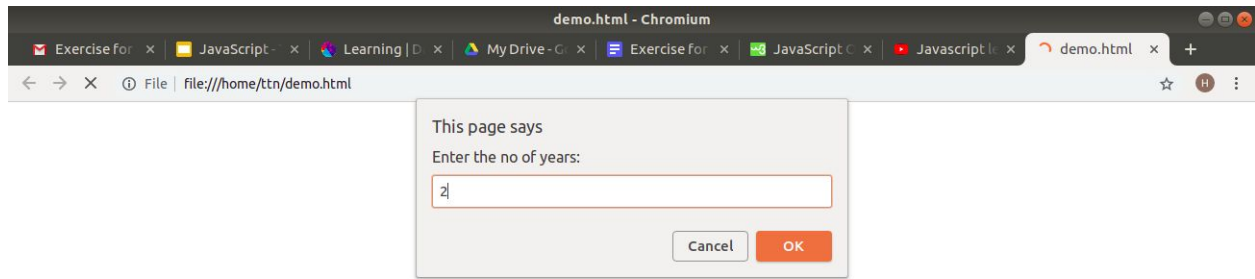
Ans:

```
<!DOCTYPE html>
<html>
<head>
</head>
<script type="text/javascript" src="demo.js">
</script>
<body>
</body>
</html>
```

Demo.js

```
var amount=prompt("Enter the amount:");
var rate=prompt("Enter the rate of interest:");
var years=prompt("Enter the no of years:");
var interest= (amount * rate * years) / 100;
document.write("Simple interest:"+interest);
```





2. is palindrome string

Ans:

```
<!DOCTYPE html>
<html>
<head>
</head>
<title>Palindrome</title>
<body>
<h1 align="center">Palindrome</h1>
<form id="form1">
Enter the string: <input name="name" type="text" required>
</form>
<input type="button" value="Check" onclick="palindrome()"/>
<p id="message"></p>
<script>
function palindrome(){
    var name,x;
    x=document.getElementById("form1");
    name=x.elements["name"].value;
    var rev= name.split("");
    var rev=rev.reverse();
    var rev=rev.join("");
    if(name==rev){
        msg="Palindrome string";

    }
    else{
        msg="Not a palindrome string";
    }

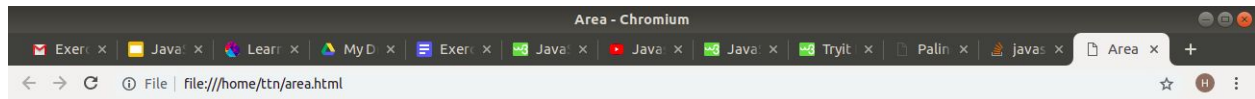
    document.getElementById("message").innerHTML = msg;
}
</script>
</body>
</html>
```



3. Area of circle

Ans:

```
<!DOCTYPE html>
<html>
<head>
</head>
<title>Area</title>
<body>
<h1 align="center">Area of circle</h1>
<form id="form1">
Enter the radius: <input name="radius" type="text" required>
</form>
<input type="button" value="Find area" onclick="area()"/>
<p id="message"></p>
<script>
function area(){
    var radius,x,area;
    x=document.getElementById("form1");
    radius=x.elements["radius"].value;
    area=3.14*radius*radius;
    msg="Area of circle:"+area;
    document.getElementById("message").innerHTML = msg;
}
</script>
</body>
</html>
```



Area of circle

Enter the radius:

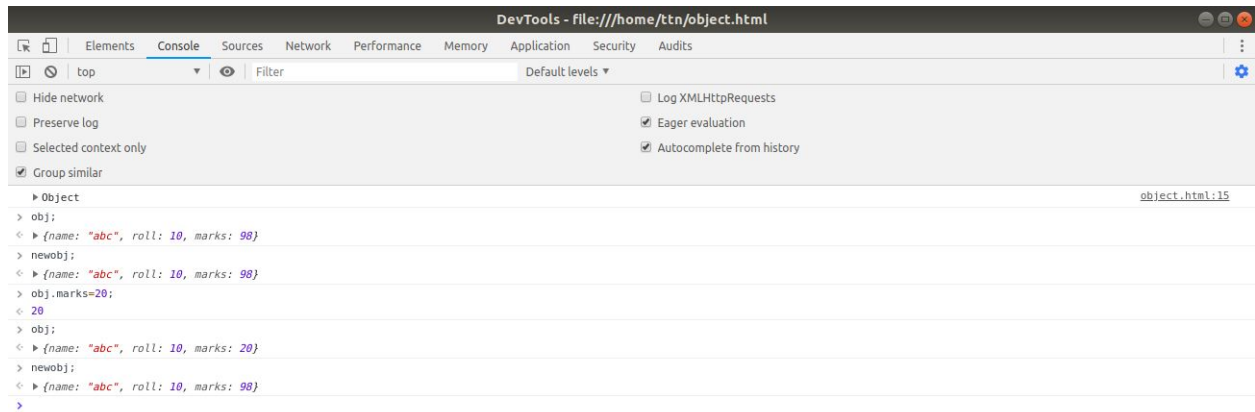
Area of circle:314

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

Ans:

```
<!DOCTYPE html>
<html>
<head>
</head>
<title>Copy object</title>
<body>
<script>
var obj={ name: "abc", roll:10, marks: 98};
var i;
var newobj={ name: null, roll: null, marks: null};
for(i in obj)
{
    newobj[i]=obj[i];
}
console.log(newobj);

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



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.**

Ans:

```
<!DOCTYPE html>
<html>
<head>
</head>
<title>List of employees</title>
<body>
<script>
```



```

var employee_list = [
  { name: 'Rohit', age: 40, salary: 5000, dob: '7-7-1981'},
  { name: 'Karan', age: 25, salary: 8000, dob: '5-11-1988'},
  { name: 'Mohit', age: 45, salary: 3000, dob: '24-4-1973'},
  { name: 'Sunil', age: 45, salary: 2000, dob: '10-7-1949'},
  { name: 'Kartik', age: 25, salary: 500, dob: '18-4-1998'},
  { name: 'Rishabh', age: 25, salary: 800, dob: '11-10-2000'}
];
document.write("(Part1) <br> List of Employees are:- <br>")
employee_list.forEach(
  function(ele){
    document.write(JSON.stringify(ele) + "<br>")
  }
)

```

```

document.write("<br> (Part 2) <br> Employees with salary greater than 5000 are:- <br>")
count = 0
employee_list.forEach(
  function(ele){
    if (ele.salary >= 5000){
      count++
      document.write(count + ". " + ele.name + "<br>")
    }
  }
)

```

```

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

```

```

document.write("<br> (Part3) <br> Grouped the objects of Employee by Age:- <br>")
document.write(JSON.stringify(employee_list.groupBy("age")) + "<br>");

```

```

document.write("<br> (Part 4) <br> All employees with salary less than 1000 and age greater than 20 are:- <br>")
c = 0

```

```

employee_list.forEach(
  function(ele){
    if (ele.salary < 1000 && ele.age>20){
      c++
      document.write(c + ". " + ele.name + ": " + ele.salary + "<br>")
    }
  }
)

```

document.write("
 And now their salaries are incremented by 5 times:-
")

c = 0

```

employee_list.forEach(
  function(ele){
    if (ele.salary < 1000 && ele.age>20){
      c++
      ele.salary *=5
      document.write(c + ". " + ele.name + ": " + ele.salary + "<br>")
    }
  }
)

```

</script>

</body>

</html>

