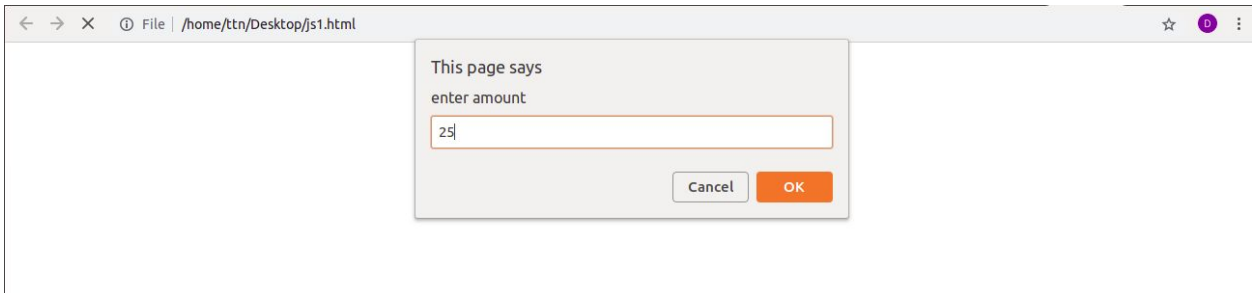
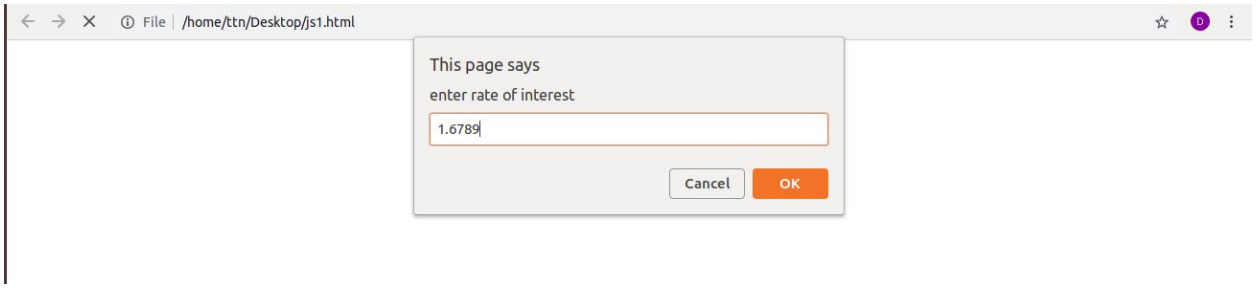
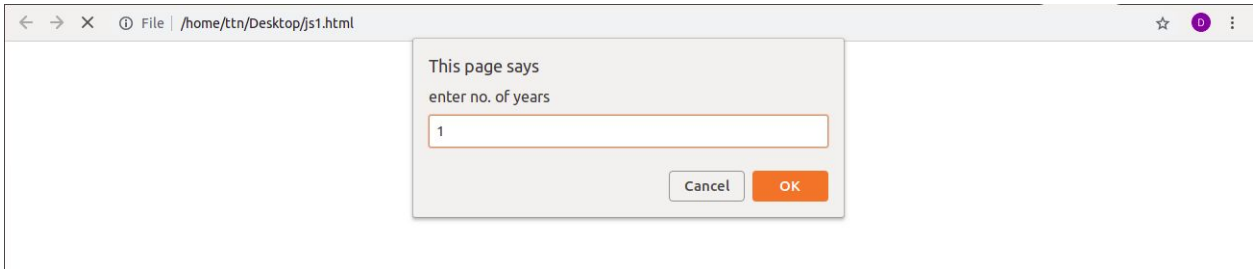
1.Prompt for amount, interest rate and no. of years and calculate simple interest.

```
<!DOCTYPE html>
<html>
<head>
	<meta charset="utf-8"></meta>
	<title></title>

	<script type="text/javascript">
		function f1()
		{
			//flag=true;


			var amount=Number(window.prompt("enter amount"));


		if (isNaN(amount) || amount=="")
		{
		alert("Must input numbers");
		return false;
		}

			var rate=Number(window.prompt("enter rate of
								interest"));
				if (isNaN(rate) || rate=="")
			{
			alert("Must input numbers");
			return false;
			}

		var time=Number(window.prompt("enter no. of years"));
```

```
                if (isNaN(time) || time=="")
                        {
                                alert("Must input numbers");
                        return false;
                        }

                var SI=(amount*rate*time)/100;

                 window.alert("the calculated Simple interest is "+SI);


                // window.confirm("are you sure?");
        }


        f1()

    </script>
</head>
<body>

</body>
</html>
```




File | /home/ttn/Desktop/js1.html
This page says
enter rate of interest
1.6789
Cancel
OK

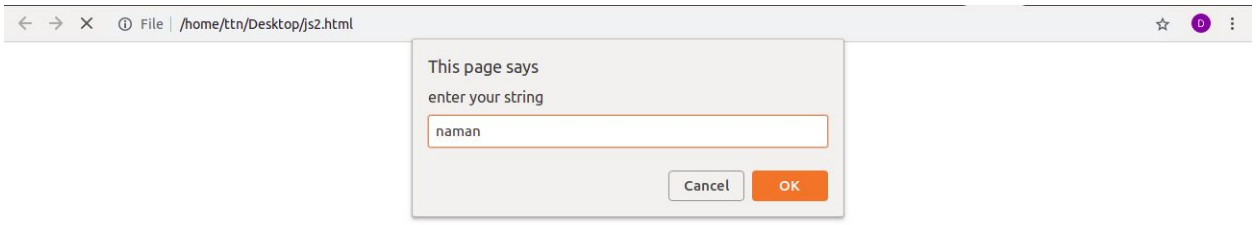

File | /home/ttn/Desktop/js1.html
This page says
enter no. of years
1
Cancel
OK

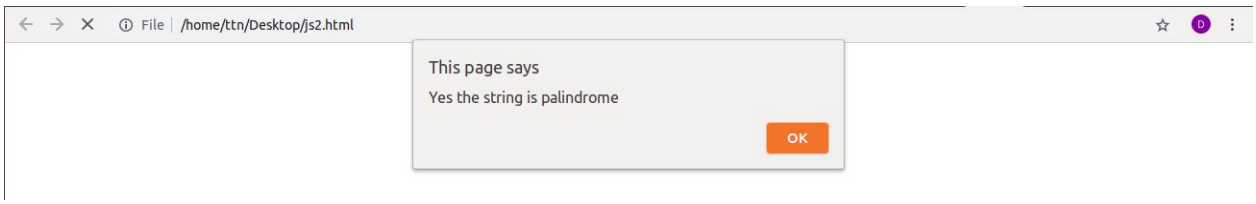

File | /home/ttn/Desktop/js1.html
This page says
the calculated Simple interest is 0.419725
OK

2. is palindrome string

```
<!DOCTYPE html>
<html>
<head>
	<meta charset="utf-8">
	<title></title>

	<script type="text/javascript">
		function f1()
		{

			//	var ch="y";
			var flag=true;
			do{
				var str1=window.prompt("enter your string");

		if(str1.length > 0)
		 {
			var str2=str1.substr(0);
			str2=str2.split("").reverse().join("");
			flag=false;
			console.log(flag+" "+str1+" "+str2);
				if(str1==str2)
			 {
				window.alert("Yes the string is palindrome");
				console.log(flag+"OK1");
			 }
			else
			    {
				window.alert("No the string is not
palindrome");
				console.log(flag+"OK2");
			 }
		   }
```

```
                else
                {
                        window.alert("string should not be blank");
                        console.log(flag+"OK3");
                        flag=true;
                }

                //ch=prompt("want to continue?y/n");

        }while(flag);
    }

            f1()

    </script>
</head>
<body>

</body>
</html>
```



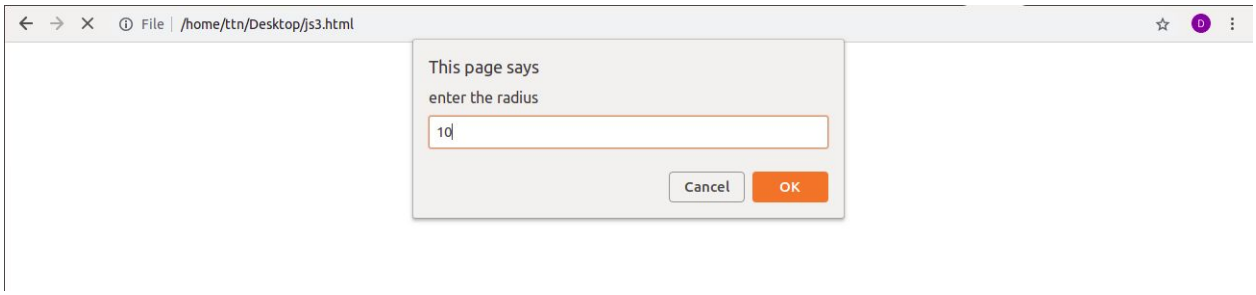


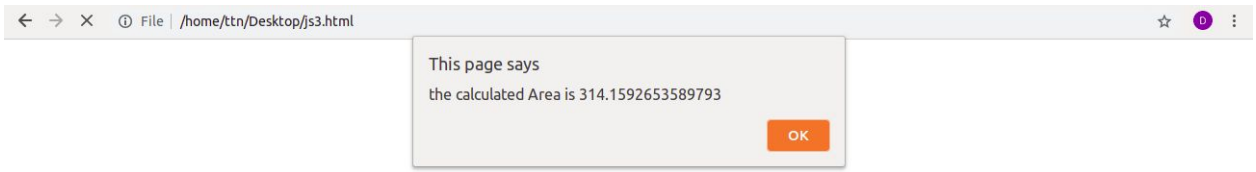
3.Area of circle

```
<!DOCTYPE html>
<html>
<head>
    <meta charset="utf-8">
    <title></title>

    <script type="text/javascript">
        function f1()
        {
            flag=true;
                var radius=Number(window.prompt("enter the radius"));
            if ( isNaN(radius) || radius=="" || radius <= 0)
        {
            alert("Must input valid numbers as radius");
            flag=false;

        }
```

```
            else
            {

                                    var area=(radius*radius)*Math.PI;

                                    window.alert("the calculated Area is
"+ area);

                                }



        }

            f1()

        </script>
```

```
</head>

<body>


</body>

</html>
```





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

```
<!DOCTYPE html>
<html>
<head>
	<meta charset="utf-8">
	<title></title>

	<script type="text/javascript">
		function f1()
		{
			var obj1={"key1":"10", "key2":"100"};


			console.log("----------method1--------\n")
			console.log(obj1);

			var obj2=Object.create(obj1);

			console.log(obj2);
```

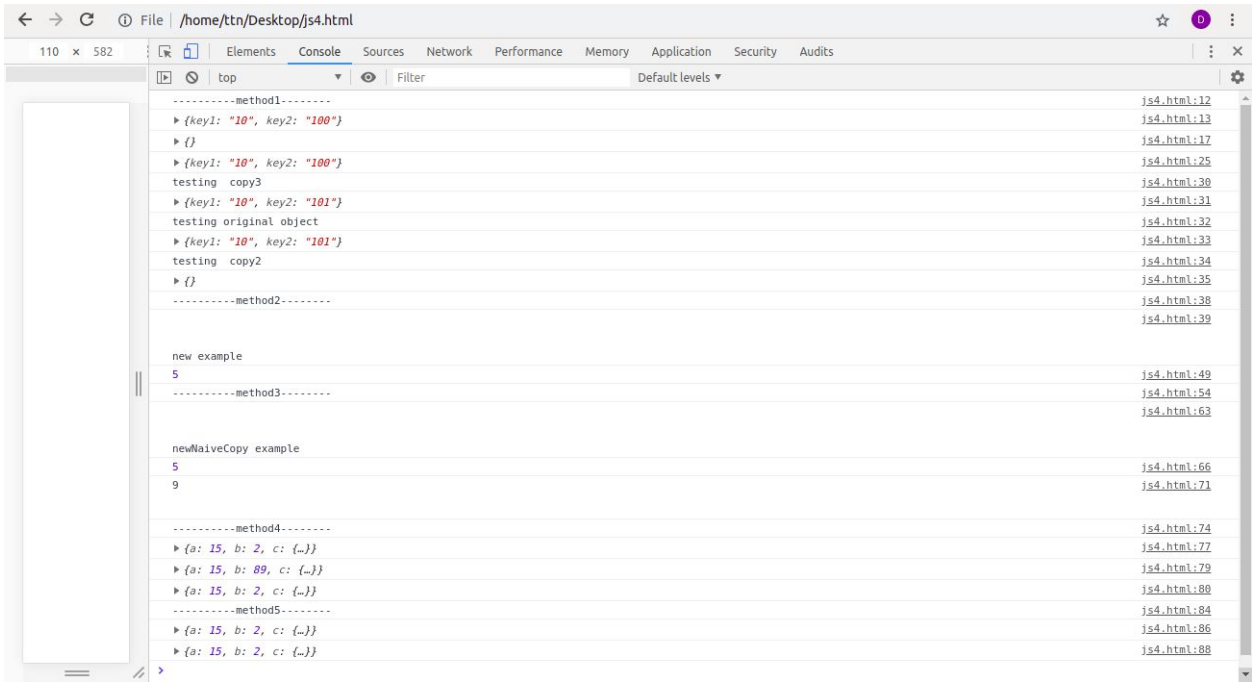
```
var obj3=obj1;

console.log(obj3);

obj1.key2="101";

console.log("testing  copy3");
console.log(obj3);
console.log("testing original object");
console.log(obj1);
console.log("testing  copy2");
console.log(obj2);
```

```
                                    console.log("----------method2--------\n")
                console.log("\n\n\nnew example");
                                        let obj =   {
                                                    a: 1,
                                                    b: 2,
                                                    c: {x: 7, y: 4,},
                                                  };

                                        let copy = obj;

                                        obj.a = 5;
                                        console.log(copy.a);
                                                    // Result
                                                    // a = 5;

console.log("----------method3--------\n")
                                        let newNaiveCopy={};
```

```
for( var key in obj)
{
        newNaiveCopy[key]=obj[key];

}

console.log("\n\n\nnewNaiveCopy example");

obj.a = 15;
console.log(newNaiveCopy.a);

obj.c.x=9;
//obj.a = 15;

console.log(newNaiveCopy.c.x+"\n\n\n");
```

```
console.log("----------method4--------\n")

                                        let objCopy = Object.assign({}, obj);


                                        console.log(objCopy); // result - { a:
15, b: 2 }
                                        objCopy.b = 89;
                                        console.log(objCopy); // result - { a:
15, b: 89 }
                                        console.log(obj); // result - { a: 15,
b: 2 }




console.log("----------method5--------\n")

                                            let newObj = { ...obj };
                                            console.log(newObj);
                                            obj.c.x=90;
                                            console.log(newObj);
```

```
        }



                f1()


        </script>
</head>
<body>


</body>
</html>
```


File | /home/ttn/Desktop/js4.html
110 × 582
Elements Console Sources Network Performance Memory Application Security Audits
top
Filter
Default levels
----------method1-------- js4.html:12
{key1: "10", key2: "100"} js4.html:13
{} js4.html:17
{key1: "10", key2: "100"} js4.html:25
testing copy3 js4.html:30
{key1: "10", key2: "101"} js4.html:31
testing original object js4.html:32
{key1: "10", key2: "101"} js4.html:33
testing copy2 js4.html:34
{} js4.html:35
----------method2-------- js4.html:38
js4.html:39
new example
5 js4.html:49
----------method3-------- js4.html:54
js4.html:63
newNaiveCopy example
5 js4.html:66
9 js4.html:71
----------method4-------- js4.html:74
{a: 15, b: 2, c: {…}} js4.html:77
{a: 15, b: 89, c: {…}} js4.html:79
{a: 15, b: 2, c: {…}} js4.html:80
----------method5-------- js4.html:84
{a: 15, b: 2, c: {…}} js4.html:86
{a: 15, b: 2, c: {…}} js4.html:88

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.

```
<!DOCTYPE html>

<html>

<head>

        <meta charset="utf-8">

        <title>employee</title>

</head>

<body>



</body>

<script type="text/javascript">

        employee1={

                "name":"employee1",

                "age" :22,

                "salary":4500,

                "dob" :new Date(1996,10,16)
```

```
}
employee2={
        "name":"employee2",
        "age" :18,
        "salary":4000,
        "dob" :new Date(2000,9,16)
}
employee3={
        "name":"employee3",
        "age" :25,
        "salary":6000,
        "dob" :new Date(1994,1,16)
}
employee4={
        "name":"employee4",
        "age" :18,
        "salary":8000,
        "dob" :new Date(2001,20,1)
}
```

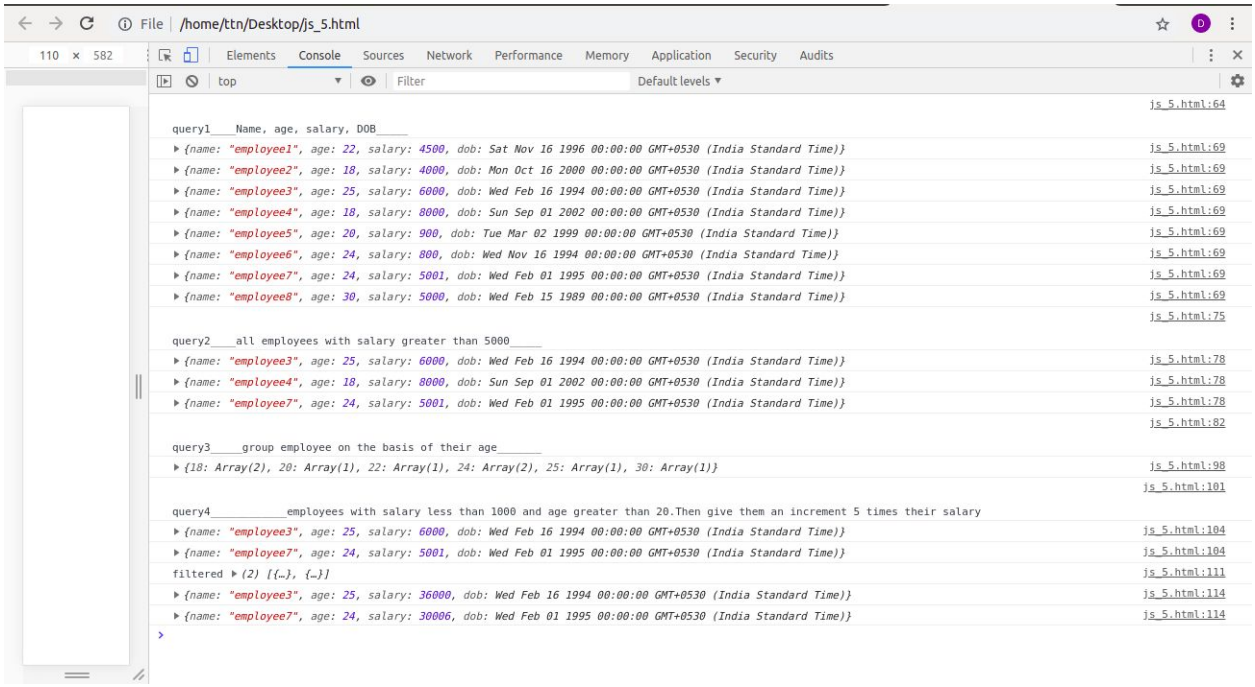
```
employee5={
        "name":"employee5",
        "age" :20,
        "salary":900,
        "dob" :new Date(1999,2,2)
}
employee6={
        "name":"employee6",
        "age" :24,
        "salary":800,
        "dob" :new Date(1994,10,16)
}
employee7={
        "name":"employee7",
        "age" :24,
        "salary":5001,
        "dob" :new Date(1995,1,1)
}
```

```
	employee8={
		"name":"employee8",
		"age" :30,
		"salary":5000,
		"dob" :new Date(1989,1,15)
	}
	var
listEmployee=[employee1,employee2,employee3,employee4,employee5,empl
oyee6,employee7,employee8]



	console.log("\n\nquery1____Name, age, salary, DOB_____\n")



	var que1=listEmployee.filter(function(c,i){

			console.log(c)
	})
```

```
    //console.log(listEmployee)  if done then it would show changes here
also after applying query3




        console.log("\n\nquery2____all employees with salary greater
than 5000_____\n")

    var great1=listEmployee.filter(function(c,i){

        if(c.salary>5000)

            console.log(c)

    })




console.log("\n\nquery3_____group employee on the basis of their
age_______\n")

listEmployee.groupBy=function(age){

    return this.reduce(function(groups,item)

    {

        const val=item['age']

        groups[val]=groups[val]|| []

        groups[val].push(item)
```

```
            return groups


        }, {})

}



grbyage=listEmployee.groupBy("age");


console.log(grbyage);



console.log("\n\nquery4_____employees with salary less than 1000 and age greater than 20.Then give them an increment 5 times their salary\n")
        var filtered=listEmployee.filter(function(c,i){
            if(c.salary>5000 && c.age>20)
                {console.log(c)
                //  c.salary+=c.salary*5
                return c;
            }
```

```
        })



        console.log("filtered",filtered)


        filtered.map (function(c,i){c.salary=c.salary+c.salary*5
                console.log(c)})




</script>
</html>
```


File | /home/ttn/Desktop/js_5.html
110 × 582
Elements Console Sources Network Performance Memory Application Security Audits
top Filter Default levels
js_5.html:64
query1____Name, age, salary, DOB_____
{name: "employee1", age: 22, salary: 4500, dob: Sat Nov 16 1996 00:00:00 GMT+0530 (India Standard Time)} js_5.html:69
{name: "employee2", age: 18, salary: 4000, dob: Mon Oct 16 2000 00:00:00 GMT+0530 (India Standard Time)} js_5.html:69
{name: "employee3", age: 25, salary: 6000, dob: Wed Feb 16 1994 00:00:00 GMT+0530 (India Standard Time)} js_5.html:69
{name: "employee4", age: 18, salary: 8000, dob: Sun Sep 01 2002 00:00:00 GMT+0530 (India Standard Time)} js_5.html:69
{name: "employee5", age: 20, salary: 900, dob: Tue Mar 02 1999 00:00:00 GMT+0530 (India Standard Time)} js_5.html:69
{name: "employee6", age: 24, salary: 800, dob: Wed Nov 16 1994 00:00:00 GMT+0530 (India Standard Time)} js_5.html:69
{name: "employee7", age: 24, salary: 5001, dob: Wed Feb 01 1995 00:00:00 GMT+0530 (India Standard Time)} js_5.html:69
{name: "employee8", age: 30, salary: 5000, dob: Wed Feb 15 1989 00:00:00 GMT+0530 (India Standard Time)} js_5.html:69
js_5.html:75
query2____all employees with salary greater than 5000_____
{name: "employee3", age: 25, salary: 6000, dob: Wed Feb 16 1994 00:00:00 GMT+0530 (India Standard Time)} js_5.html:78
{name: "employee4", age: 18, salary: 8000, dob: Sun Sep 01 2002 00:00:00 GMT+0530 (India Standard Time)} js_5.html:78
{name: "employee7", age: 24, salary: 5001, dob: Wed Feb 01 1995 00:00:00 GMT+0530 (India Standard Time)} js_5.html:78
js_5.html:82
query3_____group employee on the basis of their age_______
{18: Array(2), 20: Array(1), 22: Array(1), 24: Array(2), 25: Array(1), 30: Array(1)} js_5.html:98
js_5.html:101
query4___________employees with salary less than 1000 and age greater than 20.Then give them an increment 5 times their salary
{name: "employee3", age: 25, salary: 6000, dob: Wed Feb 16 1994 00:00:00 GMT+0530 (India Standard Time)} js_5.html:104
{name: "employee7", age: 24, salary: 5001, dob: Wed Feb 01 1995 00:00:00 GMT+0530 (India Standard Time)} js_5.html:104
filtered (2) [{…}, {…}] js_5.html:111
{name: "employee3", age: 25, salary: 36000, dob: Wed Feb 16 1994 00:00:00 GMT+0530 (India Standard Time)} js_5.html:114
{name: "employee7", age: 24, salary: 30006, dob: Wed Feb 01 1995 00:00:00 GMT+0530 (India Standard Time)} js_5.html:114