

## Exercise

### Introduction To JavaScript

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

A. Code:

**q1.js >>**

```
var amt = prompt("Enter Amount");

var interestRate = prompt("Enter interest rate");

var time = prompt("Enter number of years");

var simpleInterest = (amt*interestRate*time)/100;

document.body.innerHTML = "Simple Interest is " + simpleInterest;
```

Output>>

0/index.html

127.0.0.1:5500 says

Enter Amount

Cancel

OK

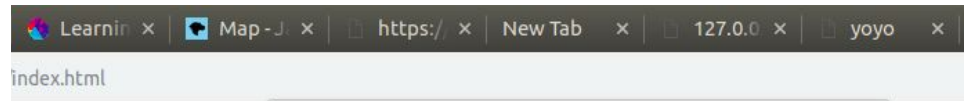
index.html

127.0.0.1:5500 says

Enter interest rate

Cancel

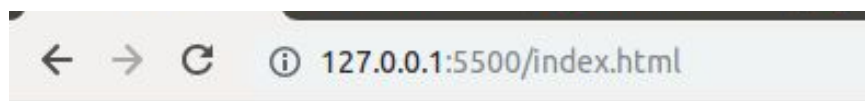
OK



127.0.0.1:5500 says

Enter number of years

Cancel OK



Simple Interest is 3.12

## 2. *is palindrome string*

A. Code:

q2.js >>

```
function ispalindrome(string)

{   if(string)

    {

        var str=string.toLowerCase();

        var len=string.length;

        var mid=Math.floor(len/2);

        for(var i=0; i<mid;i++)

        {

            if(str[i]!==str[len-1-i])

                return false;

        }

        return true;

    }

    else return false;

}
```

```
var string=prompt("Enter the String ");  
  
var result=ispalindrome(string);  
  
if(result)  
  
    alert("Yaay, it is a palindrome.");  
  
else alert("Sorry. Its not.");
```

Output>>

127.0.0.1:5500 says

Enter the String

madam

Cancel

OK

127.0.0.1:5500 says

Yaay, it is a palindrome.

OK

### 3. *Area of circle.*

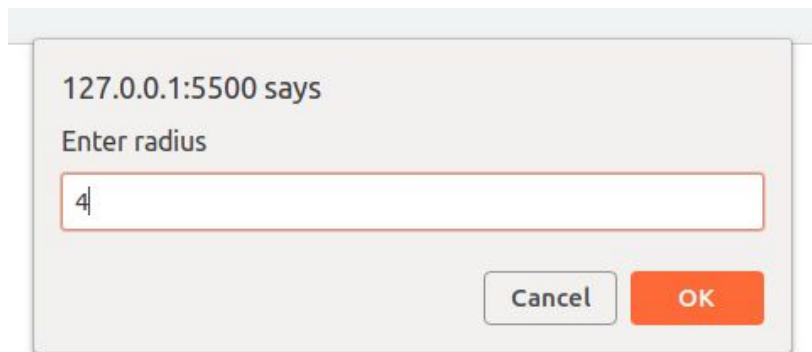
A. Code:

q3.js >>

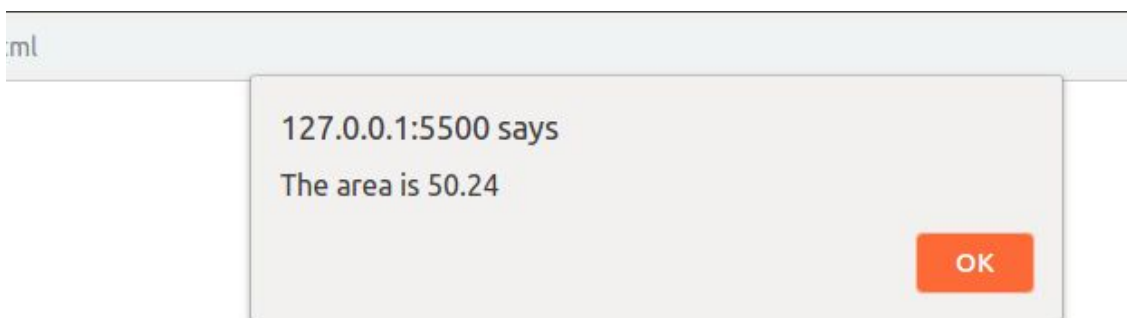
```
var radius= prompt("Enter radius");
```

```
alert("The area is "+ Math.pow(radius,2)*3.14 );
```

Output>>



A screenshot of a JavaScript prompt dialog box. The title bar at the top reads "127.0.0.1:5500 says". The main text inside the dialog is "Enter radius". Below this text is a text input field containing the number "4". At the bottom right of the dialog are two buttons: "Cancel" and "OK".



A screenshot of a JavaScript alert dialog box. The title bar at the top reads "127.0.0.1:5500 says". The main text inside the dialog is "The area is 50.24". At the bottom right of the dialog is a single button labeled "OK".

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

A. Code>>

q4.js >>

```
var object1={  
  
    name: "Yoyo",  
  
    age: 21  
  
};  
  
var object2=object1;  
  
console.log(object2);
```

Output>>

```
> object1  
< ▼ {name: "Yoyo", age: 21} ⓘ  
    age: 21  
    name: "Yoyo"  
    ▶ proto : Object  
  
> var object2=object1;  
< undefined  
  
> console.log(object2);  
    ▼ {name: "Yoyo", age: 21} ⓘ  
        age: 21  
        name: "Yoyo"  
        ▶ proto : Object  
  
< undefined  
  
>
```

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

- Name, age, salary ,DOB

A. Code for this question is in **directory q5( q5.html, q5.js, interact.js)**.

**Function for 'add button click' >>**

```
var Employee=[]; //declaring array Employee

submit.addEventListener('click', ()=>{

    //defining object emp

    var emp={

        Name: name.value,

        Age:age.value,

        Salary:salary.value,

        Dob:dob.value

    };

    Employee.push(emp); //pushing object emp in array Employee

});
```

## Add Object details :

---

Name:  Age:  Salary:  DoB:

- Mahesh Inder 21 15000 19-04-1997
  - Yoyo 19 6000 1998
- 

- *filter all employees with salary greater than 5000*

A. function `filterSalaryGreaterThan5000()` in `q5.js`>>

```
function filterSalaryGreaterThan5000() {  
  
    var result = Employee.filter(function(emp) {  
  
        return emp.Salary>5000;  
    });  
}
```



```
});
```

```
for (var key in result){
```

```
    q1.innerHTML+=result[key].Name+" ";
```

```
    q1.innerHTML+=result[key].Salary+"  ";
```

```
}
```

```
}
```

---

## Add Object details :

---

Name:  Age:  Salary:  DoB:

- Mahesh Inder 21 15000 19-04-1997
- Yoyo 19 6000 1998

---

## Q1. Filtering employees with salary greater than 5000

Mahesh Inder 15000 Yoyo 6000

---

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

A. function `groupByEmployeeAge()` in `q5.js` >>

```
function groupEmployeeAge() {  
  
    var teenAge=[];  
  
    var adult=[];  
  
    var senior=[];  
  
    Employee.map(function (emp) {  
  
        if(emp.Age>12 && emp.Age<18)  
  
            teenAge.push(emp) ;  
  
  
        else if(emp.Age>=18 && emp.Age<=60)  
  
            adult.push(emp) ;  
  
  
        else if(emp.Age>60 )  
  
            senior.push(emp) ;  
  
    })  
}
```

```
});

//displaying output

if(teenAge){

    q2.innerHTML+="<br>Teen Age Gourp: ";

    for (let key in teenAge){

        q2.innerHTML+=teenAge[key].Name+" ";

        q2.innerHTML+=teenAge[key].Age+" ";

    }

}

if(adult){

    q2.innerHTML+="<br>Adult Age Gourp: ";

    for (let key in adult){

        q2.innerHTML+=adult[key].Name+" ";

        q2.innerHTML+=adult[key].Age+" ";

    }

}
```

```

    }

    if (senior) {

        q2.innerHTML+="

```

---

## Add Object details :

---

Name:  Age:  Salary:  DoB:

- Mahesh Inder 21 15000 19-04-1997
- Yoyo 19 6000 1998
- mike 65 45000 1967
- alex 22 999 1996
- allison 23 500 1995

---

### Q1. Filtering employees with salary greater than 5000

Mahesh Inder 15000 Yoyo 6000

---

### Q2. Group employee on the basis of their age

Teen Age Gourp:  
 Adult Age Gourp: Mahesh Inder 21 Yoyo 19  
 Senior Age Gourp: mike 65

---

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

A. Function `fetchEmployeesSalaryAge()` in `q5.js` >>

```
function fetchEmployeesSalaryAge(){

    for (var key in Employee)
    {
        if(Employee[key].Salary<1000 && Employee[key].Age>20){
            Employee[key].Salary*=5;

            q3.innerHTML+=Employee[key].Name +" ";
//displaying data
            q3.innerHTML+=Employee[key].Salary + " ";
        }
    }
}
```

## Q2. Group employee on the basis of their age

Group data

Teen Age Gourp:  
Adult Age Gourp: Mahesh Inder 21 Yoyo 19  
Senior Age Gourp: mike 65

## Q3. Fetch employees with salary less than 1000 and age greater than 20. Then give them an increment 5 times their salary.

Filter data

alex 4995 allison 2500