JavaScript:-

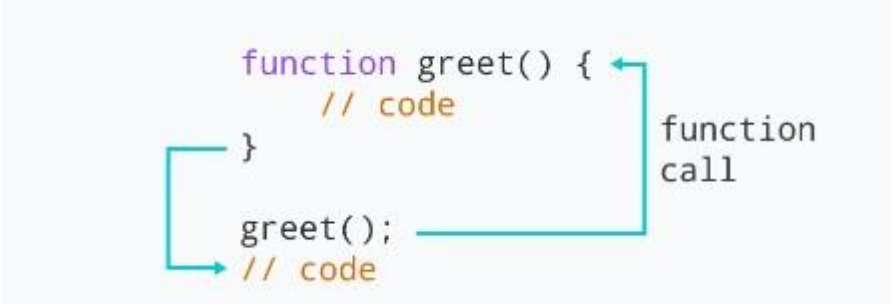
Functions:

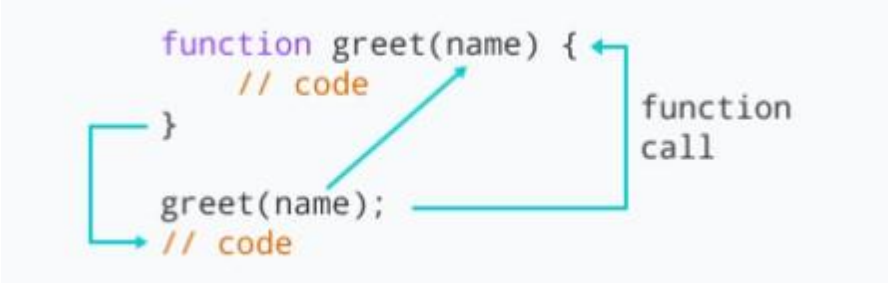
- **What are functions?**
  - A group of statements that is put together once and then can be used repeatedly on a Web page.
  - A function is written as a code block(inside curly {} braces), preceded by the function keyword
  - Syntax:-

```
Function Name([arg1, arg2, ...argN]){
   //code to be executed
 }
```

Advantages of Functions:

- Code becomes easier to read & understand.
- Code becomes easier to maintain as changes need to be made only at a single location instead multiple locations.





Examples:

1)Function without Parameter

```
const person={
name:'Abinaya',
age: 20
      };
function printName(){
console.log(person.name);
          }

printName();
```

o/p: Abinaya

2) Function with Parameter

```
const person1={
name:'Abinaya',
age: 20
     };
const person2={
name:'Abirami',
age: 21
   };
function printName(name){
console.log(name);
   }
//printName(); o/p: undefined
printName(person1.name);
printName(person2.name);
```

o/p: Abinaya
Abirami

or
printName("Divya");

3) Function with Multiple Parameters

```
const person1={
name:'Abinaya',
age: 20
};
const person2={
name:'Abirami',
age: 21
};
function printPerson(name,age){
    console.log(name,age);
  }
printPerson(person1.name, person1.age);
printPerson(person2.name,person2.age);
```

o/p: Abinaya 20
Abirami 21

4)Passing an Object

```
const person1={
name:'Abinaya',
age: 20
};
const person2={
name:'Abirami',
age: 21
};
function printPerson(person){
console.log(person.name);
console.log(person.age);
```

```
}
printPerson(person1);
printPerson(person2);
```

o/p: Abinaya 20
Abirami 21
or

```
printPerson({name:"sam",age:22});
```

5)Default value

```
const person1={
name:'Abinaya',
age: 20
};
const person2={
name:'Abirami',
age: 21
};
function printPerson(person={name:"sam",age:22}){
console.log(person.name);
console.log(person.age);
}
printPerson();
```

o/p: sam 22
or

```
printPerson(person1);
```

o/p: Abinaya 20

6)Rest Parameter

```
const person1={
name:'Abinaya',
age: 20
```

```
};
const person2={
name:'Abirami',
age: 21
};
function printPerson(...arg){
    console.log(arg);
    }
printPerson(person1.name,person2.name);

o/p: Abinaya
       Abirami
//printPerson(person1.name,person2.name,'sam')
```

7)Return a value

(i)

```
function getFullName(firstName,lastName){
const name=firstName+' '+lastName;
return name;
       }
let fullName=getFullName("sam", "son");
Console.log(fullName);
o/p: sam son
```

(ii)

```
function getNum(firstNum,secondNum){
const num=firstNum+secondNum;
 return num;
      }
let num=getNum(1, 2);
Console.log(num);

o/p: 3
```

(iii)

```
function getFullName(firstName,lastName){
  const name=[firstName,lastName];
   return name;
  }
  let fullName=getFullName("sam", "son");
  Console.log(fullName);
```

o/p: [sam,son]

(iv)

```
function getFullName(firstName,lastName){
const name={firstName:firstName,lastName:lastName};
 return name;
}
let fullName=getFullName("sam", "son");
Console.log(fullName);
```

o/p: firstName: sam
lastName: son

(v)

```
function getFullName(firstName,lastName){
   function concat(name1,name2)
   {
    const name=name1+' '+name2;
    return name;
   }
const fullName=concat(firstName,lastName);
return fullName;
}
```

```
let fullName=getFullName("sam", "son");
Console.log(fullName);
```

o/p: sam son