1. What is javascript and what are the features of javascript?
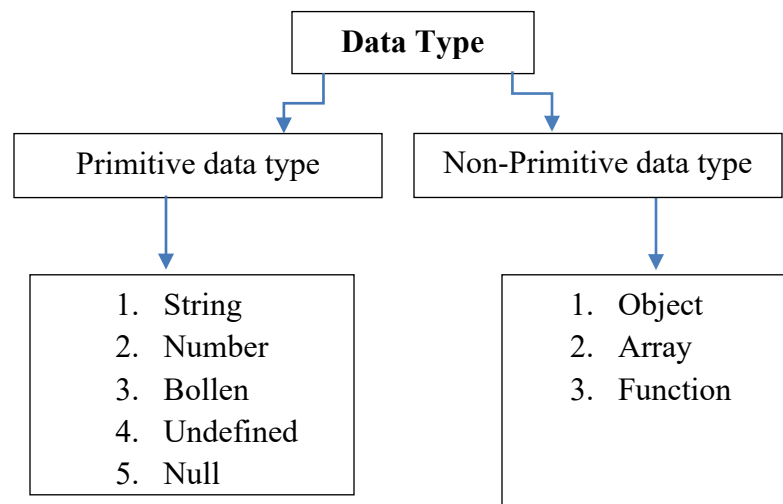
Ans:- javascript is a scripting language that is used to create a interactive and dynamic websites.

> **Features of javascript :-**
>   1. Less server interaction.
>   2. Immediate feedback to the visiters.
>   3. Increase interactivity.
>   4. Direct interpreter.
>   5. Case sensitive.

2. What are the data types supported by javascript? Write an example program.

Ans:-

```
              Data Type
        ┌──────────┴──────────┐
  Primitive data type    Non-Primitive data type
```

Primitive data type	Non-Primitive data type
1. String 2. Number 3. Bollen 4. Undefined 5. Null	1. Object 2. Array 3. Function

Example program

1. **Strings**

```
let first = "Name";
 name = 'ram';
 console.log(first);
```

2. **Number**

```
let num1 = 100;
 num2 = 8.888;
 console.log(num1);
 console.log(num2);
```

3. **Boolen**

```
const learn = true;
 const execute = false;
 console.log(learn);
```

1. **Object**

```
let emp1 = { name : 'vivek',
name : 'vivek@gmail.com',
age : 22
        };
console.log(emp1.name);
```

2. **Array**

```
let number = [1,'new',2,3];
console.log(number[1]);
```

3. **Functions**

```
function msg(){
 console.log('hello'); }    msg();
```

4. Undefined

```
let value_1;
 console.log(value_1);
```

5. Null

```
let value_2 = null;
 console.log(value_2);
```

3. What is operators? Write a three example program for each operator.

Ans:- operator that are used to perform operaton on operand.

Program:-

1. Arithmetic operator

```
let a = 10;
b =  10;
total = a + b;
total = a - b;
total = a * b;
total = a / b;
total = a % b;
 total = a ** b;
console.log(total);
```

2. assignment operator

```
let a = 10;
a+= 5;
a- = 5;
a*= 5;
a/= 5;
a%= 5;
a**= 5;
console.log(a);
```

3. comparision operator

```
let a = 10;
b =  10;
 console.log(a < b);
console.log(a > b);
console.log(a <= b);
console.log(a >= b);
console.log(a = = b);
console.log(a = = = b);
console.log(a != =b);
```

4. What are all the display possibilities in javascript? Write an example program.

Ans:-   alert('Welcome to JS');

document.write("hi");

console.log("Hello world!!");

document.getElementById("box").innerHTML = "Hello World!;

5. What is object explain briefly and write an example program which display the 5 employees display.

Ans:- object in javascript collective where each property is defined as a key value pair.

Program:-

```
let emp1 = { name : 'vivek', };

let emp2= { name : 'Ram', };

let emp3 = { name : 'arjun', };

let emp4 = { name : 'sanjay', };

let emp5 = { name : 'sam', };

console.log(emp1.name);

console.log(emp2.name);

console.log(emp3.name);

console.log(emp4.name);

console.log(emp5.name);
```

6. Explain a ten string methods with examples?

Ans:- 1. **String length :-** The length properties return the length of the string

Example:- let str = "hello";

Console.log(str.length);

2. **charAt(index):-** return the character at the specified index in a string.

Example:- let str1 = "hello";

console.log(str1.charAt(0));

3. **concat(str1,str2………..):-** one or most with calling a new string and return the new string.

Example:- let _str1 = "world";

let _str2 = "Hello";

console.log(_str1.concat(" ",_str2));

4. **Includes:-** If a string contain it specifiests substring and return true or false.

Example:- let $1 = "Hello World";

console.log($1.includes("o"));

5. **IndexOf:-** Return the index of first occurs of the specified values in string.

Example:-   let $index = "Hello World";

   console.log($index.indexOf("H"));

6. **Replace:-** Is a specified values or pattern in a string with another value it return a new string.

Example:-   let str4 = "hello hi";

   console.log(str4.replace("hello hi","good moring"));

7. **Slice:-** Extract a section of a string and return new string without modifying a original string.

Example:- let str5 = "Hello World";

   console.log(str5.slice(2));

8. **Split:-** A string into array of substring based on a specified saparater and return the array.

Example:- let str6 = "Hello,World";

   let str7 = " Hello World ";

   console.log(str6.split(" "));

9. **toUpperCase:-** Convert case to upper case string value.

Example:- let str6 = "Hello,World";

   let str7 = " Hello World ";

   console.log(str6.toUpperCase(" "));

10. **Trim:-** Remove white space in both the ends of string

Example:-   let str7 = " Hello World ";

   console.log(str7.trim(" "));

7. What is array and explain five methods with example.

Ans:- Array is a special variable which can more than one value.

 Five methods:-

1. **Length():-** It will display a length of array characters.

Example:-   const fruits = ["Apple","mango","banana"];

   let size = fruits.length;

   console.log(size);

2. **at():-** It is like string index.

Example:- const fruits = ["Apple","mango","banana"];

   let size1 = fruits.at(1);

```
                        console.log(size1);
```

3. **Join():-** New value will be add to the all array element.

Example:-   const fruits = ["Apple","mango","banana"];

```
            let size2 = fruits.join("");

             console.log(size2);
```

4. **Pop():-** A pop element removes the last element of the array.

Example:-   const fruits = ["Apple","mango","banana"];

```
            console.log(fruits);

            console.log(fruits.pop(""));

            console.log(fruits);
```

5.**Push():-** It will add the element to the last element side.

Example:-   const fruits = ["Apple","mango","banana"];

```
            console.log(fruits);

            console.log(fruits.push("Kiwi"));

             console.log(fruits);
```