```javascript
//basics
console.log("hola"); //output
//declare variable
//js only tell you that its a variable
let a; //no type required
a=10.1;
a="hello I'm string ";
a ='hello I'm string as well;
console.log("variable contains",a);
//variable types :primitive type= number,string,boolean,null
a=null;
a=true;
console.log("variable contains",a);
//if else,loops,class.objects
// js ---> java, c++ , c
let num=10;
for(let i=1;i<=num;i++)
{
    console.log("number is ",i);
}
//is prime
let number=23;
let flag=true;
for(let div=2;div<number;div++)
{
    if(number%div==0)
    flag=false;
}
if(flag==true)
console.log("prime");
else
console.log("not prime");
```

output

```
PS C:\Users\vanshika mishra> node  c:\Users\VANSHI~1\AppData\Local
hola
variable contains hello mai bhi string bro
variable contains true
number is  1
number is  2
number is  3
number is  4
number is  5
number is  6
number is  7
number is  8
number is  9
number is  10
prime
```

```javascript
//functions
//non primitve == arrays,objects ,function
function sayhi(param){    //func def
    console.log("hi vanshika",param);
    return "returned yahoo";
}


let rval =sayhi([1,2,3,4]);
console.log(rval);
```

output

```
hi vanshika [ 1, 2, 3, 4 ]
returned yahoo
```

```javascript
//objects
//object is a group of key:value pair
//key: value -->property
//key : function -->method
let me={
    name:"vanshika" ,
    lastname:"mishra" ,
    address:{
        city:"new delhi" ,
        country:"india",
    } ,
    age: 18,
     isFemale:true,
     work:["java","javascript","node.js"],
     sayhi:function(){
        console.log("cap says hi");
     }

};
//get
console.log(me.name);
console.log(me.age);
console.log(me.work[1]);
me.sayhi();

//set or update
me.age=19;  //updation
me.city="NCT Delhi";  //updation
console.log(me.age);
me.parents= ["nutan","vinay"]; //addition
console.log(me.parents[1]);
```

```javascript
console.log("about me:",me);
//delete
delete me.address;
console.log("about me:",me);
//another way to call
let propkey="age";
console.log(me[propkey]);
console.log(me.xyz); // not present so it gives undefined
```

output

```
vanshika
18
javascript
cap says hi
19
vinay
about me: {
  name: 'vanshika',
  lastname: 'mishra',
  address: { city: 'new delhi', country: 'india' },
  age: 19,
  isFemale: true,
  work: [ 'java', 'javascript', 'node.js' ],
  sayhi: [Function: sayhi],
  city: 'NCT Delhi',
  parents: [ 'nutan', 'vinay' ]
}
about me: {
  name: 'vanshika',
  lastname: 'mishra',
  age: 19,
  isFemale: true,
  work: [ 'java', 'javascript', 'node.js' ],
  sayhi: [Function: sayhi],
  city: 'NCT Delhi',
  parents: [ 'nutan', 'vinay' ]
}
19
undefined
```

```javascript
//arrays
//array declare
//let arr=[];
let array=[11,23,44,22,45];
console.log(array);
console.log(array.length);
let i=0;
while(i<array.length)
{
    console.log("elem at idx ",i,"is",array[i]);
    i++;
}
```

```javascript
//push(last),unshift(start) adds
array.push("last value");
array.unshift("first value");
console.log("////////////////////");
console.log(array);

//pop(last),shift(start) removes
array.shift();
array.pop();
console.log(array);

//slice(start index,end index) gives values till end-1
let part=array.slice(2,5);  //if end parameter is not specified it will run
till array length
console.log(part);//this works on a copy of arrays, doesn't change the real
one

//splice deletion of values from starting to end index specified
array.splice(2,2);//changes in the array itself,doesn't make a copy
console.log(array);

//indexof,includes
var str = "Hello world, welcome to the universe.";
var n = str.indexOf("welcome");  //gives index of from where the give string
 starts
console.log(n);

var string = "Hello world, welcome to the universe.";
var m = string.includes("world"); //checks whether this string is available in
 input string or not
console.log(m); //returns boolean
```

output

```
[ 11, 23, 44, 22, 45 ]
5
elem at idx  0 is 11
elem at idx  1 is 23
elem at idx  2 is 44
elem at idx  3 is 22
elem at idx  4 is 45
//////////////////////
[ 'first value', 11, 23, 44, 22, 45, 'last value' ]
[ 11, 23, 44, 22, 45 ]
[ 44, 22, 45 ]
[ 11, 23, 45 ]
13
true
PS C:\Users\Vanshika Mishra>
```

```
//strings
let singlequote='          single quote ki string bro       ';
let doublequote ="double hai bhai";

console.log(singlequote);
console.log(doublequote);
let char=singlequote.charAt(4);
 console.log(char);
 let ss= singlequote.substring(7,16);
 let ascii=singlequote.charCodeAt(4); //returns the asciii value of character
present at that index
 console.log(ss);
 console.log(ascii);
//split join imp
let arrstr=singlequote.split("i");  //string gets broken into arrays when the
character entered is encountered in this case i
console.log(arrstr);
let str=arrstr.join("$");
console.log(str);
//trim space is deleted from front and end
singlequote=singlequote.trim();
```

output

```
        single quote ki string bro
double hai bhai

 single q
32
[ '        s', 'ngle quote k', ' str', 'ng bro      ' ]
        s$ngle quote k$ str$ng bro
PS C:\Users\Vanshika Mishra>
```