

## First.js

```
1  fullname = "Tony Stark";
2  age = 24;
3  price = 99.58;
4  x = null;
5  y = undefined;
6  isFollow = true;
7
8  fullName = 25;
9  console.log(fullName);
10
```

## script.js

```
1  /* This is a code that prints
2  hello world on our console window */
3  console.log("Hello World!");
4  // Arithmetic Operators
5  let a = 5;
6  let b = 2;
7
8  console.log("a + b = ", a + b);
9
10 // Practice Qs2
11
12 let score = prompt("enter your score (0-100): ");
13 let grade;
14
15 if (score >= 90 && score <= 100) {
16     grade = "A";
17 } else if (score >= 70 && score <= 89) {
18     grade = "B";
19 } else if (score >= 60 && score <= 69) {
20     grade = "C";
21 } else if (score >= 50 && score <= 59) {
22     grade = "D";
23 } else if (score >= 0 && score <= 49) {
24     grade = "F";
25 }
26
27 console.log ("according to your scores, your grade was : ",grade)
28
```

## script.js

```
1 // Print 1 to 5
2 for(let count=1; count<=5; count++) {
3     console.log("Apan College");
4 }
5
6 // Calculate sum of 1 to n
7 let sum = 0;
8 let n = 7;
9 for(let i=1; i<=n; i++) {
10     sum = sum + i;
11 }
12
13 console.log("sum = ", sum)
14 console.log("loop has ended");
15
16 // Print 1 to 5
17 for(let i=1; i<=5; i++) {
18     console.log("i = ", i);
19 }
20
21 let i = 1;
22 do {
23     console.log("i=", i);
24     i++;
25 } while (i <= 5);
26
27 //for-of loop
28 let str = "JavaScript";
29
30 for (let i of str) { // iterator -> characters
31     console.log("i=", i);
32 }
33
```

## script.js

```
1 // for-of loop
2 let str = "JavaScript";
3
4 let size = 0;
5 for (let val of str) {
6     console.log("val=", val);
7     size++;
8 }
9
10 console.log("string size = ", size); //10
11
12 //for in loop
13 let student = {
14     name: "Rahul Kumar",
15     age: 20,
16     cgpa: 7.5,
17     isPass: true
18 };
19
20 for (let key in student) {
21     console.log("key =", key, "value", student[key]);
22 }
23
```

## script.js

```
1 //Practice Qs1
2 for(let num=0; num<=100; num++) {
3     if (num % 2 === 0) {
4         //even number
5         console.log("num =", num);
6     }
7 }
8 //Practice Qs1
9 for(let num=0; num<=100; num++) {
10     if (num % 2 !== 0) {
11         //odd number
12         console.log("num =", num);
13     }
14 }
15
```

## script.js

```
1 //Practice Qs2
2 let gameNum = 25;
3
4 let userNum = prompt("Guess the game number : ");
5
6 while(userNum != gameNum) { //game
7     userNum = prompt("You entered wrong number, Guess again : ");
8 }
9
10 console.log("congratulations, you entered the right number");
11
```

## script.js

```
1 // Strings
2 let str = "College";
3 let str2 = "Shubham";
4
5 console.log(str[0]); //C
6 console.log(str[5]); //g
7
8 let obj = {
9     item: "pen",
10    price: 10,
11 };
12
13 let output = `the cost of ${obj.item} is ${obj.price} rupees`;
14 console.log(output);
15
16 // console.log("the cost of", obj.item, "is", obj.price, "rupees");
17
18 //Template Literals
19 let specialString = `This is a template literal ${1 + 2 + 3}`;
20 console.log(specialString);
21 console.log(typeof specialString);
22
23 console.log("My\nCollege");
24 console.log("My\tCollege");
25
```

## script.js

```
1 // String Methods in JS
2 let str = "College";
3 let newStr = str.toUpperCase();
4 console.log(str);
5 console.log(newStr);
6
7 let str1 = "My College";
8 let newStr1 = str1.toLowerCase();
9 console.log(str1);
10 console.log(newStr1);
11
12 let str2 = "    My College JS    ";
13 console.log(str2.trim());
14
15 let str3 = "hello";
16 console.log(str3.slice(0, 3));
17
18 let str4 = "my";
19 let str5 = "college";
20 let res = "hello" + 1234
21 // let res = "I am learning coding from" + str4 + str5;
22 // let res = str4.concat(str5);
23 console.log(res);
24
25 let str6 = "hellolo";
26 console.log(str6.replace("lo", "p"));
27
28 let str7 = "ILoveJS";
29 // str[0] = "S";
30 str7 = str7.replace("I", "S");
31 // console.log(str7.charAt(0))//I
32 console.log(str7);//SLoveJS
33
```



## script.js

```
1 //Practice Qs3
2 let fullName = prompt("enter your fullname without spaces");
3
4 let username = "@" + fullName + fullName.length;
5 console.log(username);
6
```

## script.js

```
1 // Arrays in JS
2 let marks = [97, 85, 75, 65, 38, 34];
3 console.log(marks);
4 console.log(marks.length); // property
5
6 let heroes = ["Ironman", "Thor", "Hulk", "Shattiman", "Spiderman"];
7 console.log (heroes);
8
```

## script.js

```
1 // Arrays in JS
2 let heroes = ["Ironman", "Thor", "Hulk", "Shattiman", "Spiderman"]
3
4 // Looping over an Array
5 //for loop
6 // for(let i = 0; i < heroes.length; i++) {
7 //     console.log(heroes[i]);
8 // }
9 //for of
10 for(let hero of heroes) {
11     console.log(hero);
12 }
13
14 let cities = ["Delhi", "Pune", "Mumbai", "Hyderabad", "Gurgaon"];
15
16 for(let city of cities) {
17     console.log(city.toUpperCase());
18 }
19
```

## script.js

```
1 //Practice Qs4
2 let marks = [85, 97, 54, 75, 70, 76];
3
4 let sum = 0;
5
6 for(let val of marks) {
7     sum += val;
8 }
9
10 let avg = sum / marks.length;
11 console.log(`avg marks of the class = ${avg}`);
12 console.log(sum);
13
```

## script.js

```
1 //Practice Qs5
2 let items = [250, 645, 300, 900, 50];
3
4 let i = 0;
5 for(let val of items) {
6     // console.log(`value at index ${i} = ${val}`);
7     let offer = val / 10;
8     items[i] = items[i] - offer;
9     console.log(`value after offer = ${items[i]}`);
10    i++;
11 }
12
13 for(let i=0; i<items.length; i++){
14     let offer = items[i] / 10;
15     items[i] -= offer;
16 }
17
18 console.log(items);
19
```

## script.js

```
1 // Array in JS
2 let foodItems = ["potato", "apple", "litchi", "tomato"];
3 let marks = [97, 86, 85, 58, 75];
4 foodItems.push ("chips", "burger", "paneer");
5
6 console.log(foodItems);
7 let deletedItems = foodItems.pop();
8 console.log(foodItems)
9 console.log("deleted", deletedItems);
10 console.log(foodItems.toString());
11 console.log(marks.toString());
12
```

## script.js

```
1 let marvelHeroes = ["Thor", "Spiderman", "Ironman"];
2 let dcheroes = ["Superman", "Batman"];
3 let indianHeroes = ["Shaktiman", "Krish"];
4
5 let heroes = marvelHeroes.concat(dcheroes, indianHeroes);
6 console.log(heroes);
7
```

## script.js

```
1 let marvelHeroes = ["Thor", "Spiderman", "Ironman", "Antman", "Dr Strange"];
2
3 // let val = marvelHeroes.shift();
4 // console.log("deleted", val);
5 console.log(marvelHeroes);
6
7 console.log(marvelHeroes.slice());
8
```



## script.js

```
1 let arr = [1, 2, 3, 4, 5, 6, 7];
2
3 // arr.splice(2, 2, 101, 102);
4
5 //Add Element
6 arr.splice(2, 0, 101);
7
8 //Delete Element
9 arr.splice(3, 1);
10
11 //Replace Element
12 arr.splice(3, 1, 101);
13
```

## script.js

```
1 // Practice Qs6
2 let companies = ["Bloomberg", "Microsoft", "Uber", "Google", "IBM", "Netflix"];
3
4 // companies.shift();
5 // companies.splice(2, 1, "Ola");
6 companies.push("Amazon");
7
```

## script.js

```
1 function myfunction(msg) {
2     //Parameter -> input
3     console.log("Welcome to Apna College");
4     console.log("We are learning JS :");
5     console.log(msg);
6 }
7
8 myfunction("I love JS", 100); // argument
9
10 // Function -> 2 numbers, sum
11 function sum(x, y) {
12     // local variables -> scope
13     // console.log(x + y);
14     s = x + y;
15     console.log("before return");
16     console.log(x);
17     return s;
18 }
19
20 let val = sum(3, 5);
21 console.log(val);
22
```

## script.js

```
1 // Sum Function
2 function sum(a, b) {
3     return a+b;
4 }
5
6 const arrowSum = (a, b) => {
7     return a+b;
8 };
9
10 // Multiplication function
11 function mul(a, b) {
12     return a * b;
13 }
14
15 const arrowMul = (a, b) => {
16     return a * b;
17 }
18
19 const printHello = () => {
20     console.log("hello");
21 }
22
```

## script.js

```
1 function countVowels(str) {
2     let count = 0;
3     for(const char of str) {
4         // console.log(char);
5         if(
6             char === "a" ||
7             char === "e" ||
8             char === "i" ||
9             char === "o" ||
10            char === "u"
11        ) {
12            count++;
13        }
14    }
15
16    return count;
17 }
18
19 const countVow = (str) => {
20     let count = 0;
21     for(const char of str) {
22         if(
23             char === "a" ||
24             char === "e" ||
25             char === "i" ||
26             char === "o" ||
27             char === "u"
28         ) {
29             count++;
30         }
31     }
32
33     return count;
34 }
35
```

## script.js

```
1 let arr = [1, 2, 3, 4, 5]
2
3 // arr.forEach(function printVal(val){
4 //     console.log(val);
5 // })
6
7 arr.forEach((val) => {
8     console.log(val);
9 })
10
11 // function abc() {
12 //     console.log("hello");
13 // }
14
15 // function myFunc(abc) {
16 //     return abc;
17 // }
```

## script.js

```
1 let arr = ["Pune", "Delhi", "Mumbai"];
2
3 // arr.forEach(function printVal(val){
4 //     console.log(val);
5 // })
6
7 arr.forEach((val, idx, arr) => {
8     console.log(val.toUpperCase(), idx, arr);
9 });
10
11 // function abc() {
12 //     console.log("hello");
13 // }
14
15 // function myFunc(abc) {
16 //     return abc;
17 // }
```

## script.js

```
1 let nums = [2, 3, 4, 5, 6]
2
3 // nums.forEach((num) => {
4 //     console.log(num * num); //num**2
5 // })
6
7 let calcSquare = (num) => {
8     console.log(num * num);
9 };
10
11 nums.forEach(calcSquare);
12
```



## script.js

```
1 let nums = [67, 52, 39];
2
3 let newArr = nums.map((val) => {
4     return val * val;
5 });
6
7 console.log(newArr);
8
9 let calcSquare = (num) => {
10     console.log(num * num);
11 };
12
```

## script.js

```
1 let arr = [1, 2, 3, 4, 5, 6, 7];  
2  
3 let evenArr = arr.filter((val) => {  
4     // return val % 2 === 0;  
5     // return val % 2 !== 0;  
6     return val > 3;  
7 });  
8  
9 console.log(evenArr);  
10
```

## script.js

```
1 let arr = [1, 2, 3, 101, 7, 8];
2
3 // const output = arr.reduce((res, curr) => {
4 //     return res + curr;
5 // });
6
7 // const output = arr.reduce((prev, curr) => {
8 //     return prev + curr;
9 // });
10
11 // const output = arr.reduce((prev, curr) => {
12 //     return prev > curr ? prev : curr;
13 // });
14
15 const output = arr.reduce((prev, curr) => {
16     return prev < curr ? prev : curr;
17 });
18
19 console.log(output); //10
20
```

## script.js

```
1 //Practice Qs7
2 let marks = [97, 64, 32, 49, 99, 96, 89, 94];
3
4 let toppers = marks.filter ((val) => {
5     return val > 90;
6 });
7
8 console.log(toppers);
9
```

## script.js

```
1 //Practice Qs8
2 let n = prompt("enter a number : ");
3
4 let arr = [];
5
6 for(let i=1; i<=n; i++) {
7     arr[i-1] = i;
8 }
9
10 console.log(arr);
11 let sum = arr.reduce((res, curr) => {
12     return res + curr;
13 })
14
15 console.log(sum);
16
```

## script.js

```
1 //Practice Qs8
2 let n = prompt("enter a number : ");
3
4 let arr = [];
5
6 for(let i=1; i<=n; i++) {
7     arr[i-1] = i;
8 }
9
10 console.log(arr);
11 let sum = arr.reduce((res, curr) => {
12     return res + curr;
13 });
14
15 console.log("sum = ", sum);
16
17 let factorial = arr.reduce = arr.reduce((res, curr) => {
18     return res * curr;
19 });
20
21 console.log("factorial = ", factorial);
22
```