

Assignment-06

```
// Question 1
// Create variables to store your name, age, and whether you are a student
// (boolean). Log these variables to the console.
```

```
let name = "Ankit Kumar Sharma";    "Ankit": Unknown word.
const age = 25;
const isStudent = true;

console.log("Name: ", name);    'name' is deprecated.
console.log("Age: ", age);
console.log("Student: ", isStudent);
|
```

```
Name:  Ankit Kumar Sharma
Age:   25
Student:  true
```

```
// Write a program to swap the values of two variables without using a third
// variable
```

```
let x = 10;
let y = 5;
console.log("Before Swapping: x =" + x + ", y=" + y);

x = x + y;
y = x - y;
x = x - y;

console.log("After Swapping: x =" + x + ", y=" + y);
```

```
Before Swapping: x =10, y=5
After Swapping: x =5, y=10
```

//Write a program to calculate the area of a rectangle using variables length and width.

```
let length = 10;
let width = 5;

let area = length * width;
console.log("Area of rectangle is " + area);
```

Area of rectangle is 50

//Create a program that takes a number as input and checks if it is even or odd using the modulo operator.

```
function isEven(n) {
  return n % 2 == 0;
}

let n = 2;

isEven(n) ? console.log("Even") : console.log("Odd");
```

Even

//Write a program to determine if a person is eligible to vote based on their age. The eligible age is 18 and above.

```
let age = 10;

if (age >= 18) {
  console.log("Eligible to vote");
} else {
  console.log("Not eligible to vote");
}
```

Not eligible to vote

// Write a program to calculate the grade based on marks. Use the following grade scale:

```
// * 90-100: A
// * 80-89: B
// * 70-79: C
// * 60-69: D
// * Below 60: F
```

```
let marks = 80;

if (marks >= 90 && marks <= 100) {
  console.log("Grade is A");
} else if (marks >= 80 && marks <= 89) {
  console.log("Grade is B");
} else if (marks >= 70 && marks <= 79) {
  console.log("Grade is C");
} else if (marks >= 60 && marks <= 69) {
  console.log("Grade is D");
} else {
  console.log("Grade is F");
}
```

Grade is B

//Write a switch case to print the name of a day (e.g., 1 for Sunday, 2 for Monday, etc.) based on a number input.4.

```
let day = 5;

switch (day) {
  case 1:
    console.log("Sunday");
    break;
  case 2:
    console.log("Monday");
    break;
  case 3:
    console.log("Tuesday");
    break;
  case 4:
    console.log("Wednesday");
    break;
  case 5:
    console.log("Thursday");
    break;
  case 6:
    console.log("Friday");
    break;
  case 7:
    console.log("Saturday");
    break;
  default:
    console.log("Invalid day");
}
```

Thursday

//Write a program to print the first 10 natural numbers using a for loop.

```
console.log("First 10 natural numbers:");
for (let i = 1; i <= 10; i++) {
  console.log(i);
}
```

First 10 natural numbers:

```
1
2
3
4
5
6
7
8
9
10
```

//Write a program to print the multiplication table of a number entered by the user.

```
1
2 |
3 const number = parseInt(prompt('Enter an integer: '));
4
5 for(let i = 1; i <= 10; i++) {
6     const result = i * number;
7     console.log(`${number} * ${i} = ${result}`);
8 }
```

node /tmp/57MziviaiH.js

Enter an integer: 4

4 * 1 = 4

4 * 2 = 8

4 * 3 = 12

4 * 4 = 16

4 * 5 = 20

4 * 6 = 24

4 * 7 = 28

4 * 8 = 32

4 * 9 = 36

4 * 10 = 40

//Write a program to calculate the factorial of a number using a while loop.

```
let n = 5;
let factorial = 1;

while (n > 1) {
    factorial = factorial * n;
    console.log(factorial);
    n--;
}
```

5
20
60
120

//Write a program that sums all numbers between 1 and 100 that are divisible by 5.

```
let sum = 0;

for (let i = 1; i <= 100; i++) {
  if (i % 5 == 0) {
    sum = sum + i;
  }
}

console.log("Sum of numbers divisible by 5 is " + sum);
```

Sum of numbers divisible by 5 is 1050

//Write a program to check if a number is positive, negative, or zero using the ternary operator

```
1
2
3 const number = parseInt(prompt('Enter an integer: '));
4
5
6 number > 0
7   ? console.log("Positive")
8   : number < 0
9   ? console.log("Negative")
10  : console.log("Zero");
11
```

node /tmp/4gVBho1dPS.js
Enter an integer: -2
Negative

//Write a program to determine the largest of three numbers using nested if-else.

```
1 const num1 = parseFloat(prompt("Enter first number: "));
2 const num2 = parseFloat(prompt("Enter second number: "));
3 const num3 = parseFloat(prompt("Enter third number: "));
4 let largest;
5
6 if(num1 >= num2 && num1 >= num3) {
7     largest = num1;
8 }
9 else if (num2 >= num1 && num2 >= num3) {
10    largest = num2;
11 }
12 else {
13     largest = num3;
14 }
15
16 console.log("The largest number is " + largest);
17
```

node /tmp/AabYyXWa27.js

Enter first number: 4

Enter second number: 8

Enter third number: 0

The largest number is 8

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