DAY 2-Assignment

1. **Explore and explain the various methods in console function.**

Ans-

a) console.log() ⇒

It is used to log the output to the console. We can print any type inside the log(), be it as string,array,number,null,undefined,boolean,object etc.

e.g- var a="Mahi";

console.log(a); // Mahi

b) console.error() ⇒

It is used to log the error message to the console.

e.g-console.error("Oops...Error occurred!!!!");

c) console.warn() ⇒

It is used to log the warning message to the console.

e.g-console.warn("Its a warning!!!");

d) console.table()⇒

It is used to display the output in tabular format.

e.g- var obj = {name:"ABC",age:25,location: "Hyd"};

console.table(obj);

e) console.time() and console.timeEnd() ⇒

It is used to count the amount of time taken to execute the block or a function.

The code inside that can be anything like, function,object,simple console etc

e.g - console.time('timeTaken-');

console.time('timeTaken-');

function fnClick(){

alert("Hello")

```
}
fnClick();
console.timeEnd('timeTaken-');
```

f) console.count() ⇒

This method is used to count the number that the function hit by this counting method.

e.g-

```
for(let i=0;i≤5;i++){
console.count(i);
}
```

g) console.group() and console.groupEnd() ⇒

It is used to group the contents in separate block.

```
e.g - console.group("Block1");
        console.log("hey Hello....!!");
        console.error("Oops...error occurred!!!");
        console.warn("This is warning message!!!!");
    console.groupEnd("Block1");
  console.log("Block2");
```

h) console.clear() ⇒

It is used to clear the console.

e.g- console.clear()

Q.2 - Write the difference between var, let and const with code example.

a) var - Variable declared with ***var*** keyword are function and hoisted at the top within its scope

e.g -

```
for(var i = 0; i < 5; i++) { console.log(i); // 0,1,2,3,4
}
console.log(i); // 5
```

b) let - Variable declared with ***let*** keyword are block scoped i.e **{ }** and can not be hoisted at the top within its scope

e.g -

```
for(let i = 0; i < 5; i++) {
console.log(i);  // 0,1,2,3,4
}
console.log(i); // undefined
```

c) const- Variable declared with ***const*** keyword are block-scoped but it can be read only, we can not reassign new value to them.

e.g. **1**. const PI = 3.14;

console.log(PI) // 3.14

PI =10; // error

2. However, We can still reassign value of object properties and array elements.

```
const obj = {name:"abc",age:25,location:"Hyd"}
obj.name = "def";
console.log(obj); //  {name: "def",age:25,location:"Hyd"}
```

Q.3- Write a brief intro on available data types in javascript

A] Primitive data types ⇒

1.**Number data types :**

- The number data type is used to represent positive or negative numbers with or without decimal place, or numbers written using exponential notation.
- e.g. var num = 1234;

2. String data types :

- The string data type is used to represent textual data. Strings are created using single or double quotes surrounding one or more characters.
- e.g. var a = "Hello..!"

3. Boolean data types :

- The Boolean data type can hold only two values: true or false.
- e.g. var isShow = true;

4. undefined data types :

- If a variable has been declared, but has not been assigned a value, has the value undefined.
- e.g. var a;
  var b = "Hello World!"
  alert(a) // Output: undefined
  alert(b) // Output: Hello World!

5. null data types:

- A null value means that there is no value. It is not equivalent to an empty string ("") or 0, it is simply nothing.
- e.g. var a = null;
  alert(a); // Output: null
  var b = "Hello World!"
  alert(b); // Output: Hello World!
  b = null;
  alert(b) // Output: null
-

6**. typeof data types :**

- The typeof operator can be used to find out what type of data a variable or operand contains.
- var a = 123

  typeof a // number

B] ***Non-Primitive data types*** ⇒

7**. object data types:**

- The object is a complex data type that allows you to store collections of data.
- e.g. var car = {

  "modal": "BMW X3",

  "color": "white",

```
    "doors": 5
}
```

8**. array data types:**

- An array is a type of object used for storing multiple values in single variable.
- e.g. var colors = ["Red", "Yellow", "Green", "Orange"];

9**. function data types:**

- The function is callable object that executes a block of code. Since functions are objects, so it is possible to assign them to variables.
- e.g. var greeting = function(){

```
    return "Hello World!";
}
alert(typeof greeting)
alert(greeting());
```