Assignment

1. Various methods in console function are:

- Console.log() -> Mainly used to log(print) the output to the console. We can put any type inside the log(), be it a string, array, object, boolean etc.
- Console.warn() -> Used to log warning message to the console. By default the warning message will be highlighted with yellow color.
- Console.error() -> Used to log error message to the console. Useful in testing of code. By default the error message will be highlighted with red color.
- Console.clear() -> Used to clear the console. The console will be cleared, in case of Chrome a simple overlayed text will be printed like: Console was cleared while in firefox no message is returned.
- Console.table() -> This method allows us to generate a table inside a console. The input must be an array or an object which will be shown as a table.
- Console.count() -> This method is used to count the number that the function hit by this counting method.

2. Difference between var, let and const:

- var declarations are globally scoped or function scoped while let and const are block scoped.
- var variables can be updated and re-declared within its scope; let variables can be updated but not re-declared; const variables can neither be updated nor re-declared.
- They are all hoisted to the top of their scope. But while var variables are initialized with undefined, let and const variables are not initialized.
- While var and let can be declared without being initialized, const must be initialized during declaration.

Example of var is: -

```
var greeter = "hey hi";


  function newFunction() {
     var hello = "hello";
  }
```

Example of let is:

```
let greeting = "say Hi";
  let times = 4;
```

```
  if (times > 3) {
      let hello = "say Hello instead";
      console.log(hello);// "say Hello instead"
   }
  console.log(hello)
```

Example of const is:

```
const greeting = {
      message: "say Hi",
      times: 4
   }
```

3. Date types in javascript are:

JavaScript Strings

A string (or a text string) is a series of characters like "John Doe".

Strings are written with quotes. You can use single or double quotes.

- Example: var carName2 = 'Volvo XC60';

JavaScript Numbers

JavaScript has only one type of numbers.

Numbers can be written with, or without decimals.

- Example: var x1 = 34.00;

JavaScript Booleans

Booleans can only have two values: true or false.

- var x = 5;
- var y = 5;

- var z = 6;
- (x == y) // Returns true

- (x == z) // Returns false

JavaScript Arrays

JavaScript arrays are written with square brackets.

Array items are separated by commas.

The following code declares (creates) an array called cars, containing three items (car names).

- Example: var cars = ["Saab", "Volvo", "BMW"];

JavaScript Objects

JavaScript objects are written with curly braces{}.

Object properties are written as name:value pairs, separated by commas.

- Example: var person = {firstName:"John", lastName:"Doe", age:50, eyeColor:"blue"};

Empty Values

An empty value has nothing to do with undefined.

An empty string has both a legal value and a type.

- Example: var car = ""; // The value is "", the typeof is "string"

Null

In JavaScript null is "nothing". It is supposed to be something that doesn't exist.

Unfortunately, in JavaScript, the data type of null is an object.

- Example: var person = {firstName:"John", lastName:"Doe", age:50, eyeColor:"blue"};
  person = null; // Now value is null, but type is still an object