Question 1 : Explore and explain the various methods in console function Explain them

|  |  |
| --- | --- |
| [assert()](https://www.w3schools.com/jsref/met_console_assert.asp) | Writes an error message to the console if the assertion is false |
| [clear()](https://www.w3schools.com/jsref/met_console_clear.asp) | Clears the console |
| [count()](https://www.w3schools.com/jsref/met_console_count.asp) | Logs the number of times that this particular call to count() has been called |
| [error()](https://www.w3schools.com/jsref/met_console_error.asp) | Outputs an error message to the console |
| [group()](https://www.w3schools.com/jsref/met_console_group.asp) | Creates a new inline group in the console. This indents following console messages by an additional level, until console.groupEnd() is called |
| [groupCollapsed()](https://www.w3schools.com/jsref/met_console_groupcollapsed.asp) | Creates a new inline group in the console. However, the new group is created collapsed. The user will need to use the disclosure button to expand it |
| [groupEnd()](https://www.w3schools.com/jsref/met_console_groupend.asp) | Exits the current inline group in the console |
| [info()](https://www.w3schools.com/jsref/met_console_info.asp) | Outputs an informational message to the console |
| [log()](https://www.w3schools.com/jsref/met_console_log.asp) | Outputs a message to the console |
| [table()](https://www.w3schools.com/jsref/met_console_table.asp) | Displays tabular data as a table |
| [time()](https://www.w3schools.com/jsref/met_console_time.asp) | Starts a timer (can track how long an operation takes) |
| [timeEnd()](https://www.w3schools.com/jsref/met_console_timeend.asp) | Stops a timer that was previously started by console.time() |
| [trace()](https://www.w3schools.com/jsref/met_console_trace.asp) | Outputs a stack trace to the console |
| [warn()](https://www.w3schools.com/jsref/met_console_warn.asp) | Outputs a warning message to the console |

Q2) Write the difference between var, let and const with code examples.

The var statement declares a variable.

Variables are containers for storing information.

Creating a variable in JavaScript is called "declaring" a variable.

Ex.

var carName;

let is block scoped

A block is a chunk of code bounded by {}. A block lives in curly braces. Anything within curly braces is a block.So a variable declared in a block with let  is only available for use within that block. Let me explain this with an example:

let greeting = "say Hi";

let times = 4;

if (times > 3) {

let hello = "say Hello instead";

console.log(hello);// "say Hello instead"

}

console.log(hello) // hello is not defined

## Const

Variables declared with the const maintain constant values. const declarations share some similarities with let declarations.

### const declarations are block scoped:-

Like let declarations, const declarations can only be accessed within the block they were declared.

### const cannot be updated or re-declared:-

This means that the value of a variable declared with const remains the same within its scope. It cannot be updated or re-declared.

Ex.

const greeting = {

message: "say Hi",

times: 4

}

Q3)Write a brief intro on available data types in Javascript

JavaScript provides different data types to hold different types of values. There are two types of data types in JavaScript.

1. Primitive data type
2. Non-primitive (reference) data type

## JavaScript primitive data types

There are five types of primitive data types in JavaScript. They are as follows:

|  |  |
| --- | --- |
| **Data Type** | **Description** |
| String | represents sequence of characters e.g. "hello" |
| Number | represents numeric values e.g. 100 |
| Boolean | represents boolean value either false or true |
| Undefined | represents undefined value |
| Null | represents null i.e. no value at all |

## JavaScript non-primitive data types

The non-primitive data types are as follows:

|  |  |
| --- | --- |
| **Data Type** | **Description** |
| Object | represents instance through which we can access members |
| Array | represents group of similar values |
| RegExp | represents regular expression |