

## Javascript

### Variables

**var:** used to initialize to value, redeclared and its value can be reassigned.

Ex → `var x = value;`

**let:** Similar to var but is block scoped

Ex `let y = value;`

**Const:** Used to declare a fixed value that cannot be changed.

Ex `const z = value;`

### Data types

**Number** → Numeric values can be real number or integer.

**String** → Series of multiple characters written in quotes

**Boolean** → has only two values true or false.

**Null** → Special value that represents that the variable is

**Undefined** → <sup>empty</sup> Represent a variable which is declared but not assigned.

**Object** → Complex data type that allows us to store a collection data

**Array** → store multiple value of same type in a single variable.

**function** → Functions are object that can be called to execute a block of code.



## Loops:

### • for loop

```
for(initialization; condition; increment){
  // code
}
```

### • while loop

```
while (condition){
  //code
}
```

### • Do while loop

```
do {
  //code
  i++;
} while (condition);
```

## Functions:

ParseInt()	parseFloat()	isNaN()	eval()	prompt()
Parse an argument passed to it and returns an Integral number	Parse the argument and returns a floating-point number	Determines if a given value is not a Number	using for evaluating JS programs presented as strings	Create a dialogue box for taking input from the user.

## Arrays

push()	pop()	concat()	toString()	splice()	join()
Adds a new element at the very end of an array	Remove the last element of an array	Joins various arrays into a single array	Convert the array elements into strings	add element in a particular way and position	combines elements of an array into one single string and then returns it.

## Number Methods

toExponential()	toFixed()	valueOf()
Converts a number to its exponential form	Formats a number into a specified length	Returns the primitive value of a number

## Math methods

ceil(x)	exp(x)	log(x)	Pow(x, y)	random()
Rounds a number upward to nearest	Return the value of $E^x$	Returns the logarithmic value	Returns the value of $x$ to the power $y$	Returns a random number between 0 and 1.



## DOM (Document Object Model)

- `appendChild()` → Adds a new child node as the last child node.
- `cloneNode()` → Duplicate an HTML element.
- `hasAttributes()` → Returns true if an element has any attributes otherwise, return false.
- `removeChild()` → Remove a child node from an element using the `child()` method.
- `getElementByTagName()` → Returns a list of all child elements.
- `isEqualNode()` → Determines whether two elements are same.
- `getAttribute()` → Returns the values of an element node's provided attribute.

## Events :

- `onclick()` - Triggers an event when an element is clicked.
- `onkeyup()` - Executes instructions whenever a key is released after pressing.
- `onfocus()` - Triggers when an aspect is brought into focus.
- `ondrag()` - Invokes an event when an element is dragged.