

# Java Script:

- it is used for building functionalities in the website
- example: adding products to the cart in amazon
- uses REPL read evaluate print loop

## Basics of JS:

### knowing java script using console :

code is temporary

only used for practicing

clear the console: ctrl + l

---

### Data types in JS:

1.primitive data types:

1.number - positive(13) & negative(-23) or floating(2.45) all comes under number

2.boolean

3.string - text or sequence of characters.

4.undefined

5.NaN-represents a number but not a valid number

6.bigint

7.symbol

### to check the type:

ex: a=23

typeof a //returns **number**

---

### operations in js:

+ -sum

- -difference

\* -multiplication

/ -division

**\*\*** -exponential

**%** -remainder or modulus

---

## **NaN in JS**

the NaN property represents **Not-a-Number**

**0/0**

**NaN-1**

**NaN\*1**

**NaN+NaN**

NaN is not a valid number it only returns NaN when it is executed

---

**For declaring variables we need to use keywords in JS:**

**let keyword(mostly this is used):**

**example:**

let age=23;    let cgpa ; -we can create a variable without any value also

age=age+1    cgpa=7.89

**const keyword - when the value is constant/fixed/cannot be changed:**

**example:**

const a=21

a=a+10 -error cannot be changed because we used const

// it cannot be reassigned again with a new number.

-it is mainly used when the variable is fixed for example: const pi=3.14

**var keyword - old syntax for writing variables**

**we are using let instead of var currently**

**it is outdated version to initialize the variables**

---

**unary operators:**

age=age+1    age++ - it returns age+1

age=age-1    age-- -it returns age-1

++a -pre increment

a++-post increment

--a=pre decrement

a--=post decrement

---

## **what is type script??**

type script was developed by microsoft where the data type of variable cannot be done.

type script is a static and js is dynamic type

type script is a stricter version of java script

---

## **String:**

String can be accessed using index values.

for getting length of the string:

```
name="Dinesh"
```

```
name.length ==6
```

type(name.length)-returns 'number'

for accessing name[0]-- same as python

---

## **NULL and UNDEFINED:**

let a;

when we access a it returns undefined

let a=null

it returns null

undefined-it returns when we try to access the unavailable one

where as null we initialize when we want to change it afterwards

---

