BASICS OF PROGRAMMING

- VARIABLES
- WHAT ARE VARIABLE
- WHAT ARE DATA TYPES

VARIABLES

 Variables are used to store information to be referenced and manipulated in a computer program.

- Types of Variables:
 - Global Variables
 - Local Variables

Global Variables:

- Declaring a variable outside the function makes it a global variable.
- Variable is accessed everywhere in the document.

Local Variable:

• Variables are declared inside of a function or a loop.

VARIABLES IN JAVASCRIPT

- There are three types of variables declarations in Javascript
- They are
- i. Let
- ii. Var
- iii. Const

LET VARIABLE

• In LET the value is used within the brackets.

• Ex:

```
function(){
if(true){
    let a=12;
}
    console.log(a);
}
```

VAR VARIABLE

• In this the value is used in the nearest of the function.

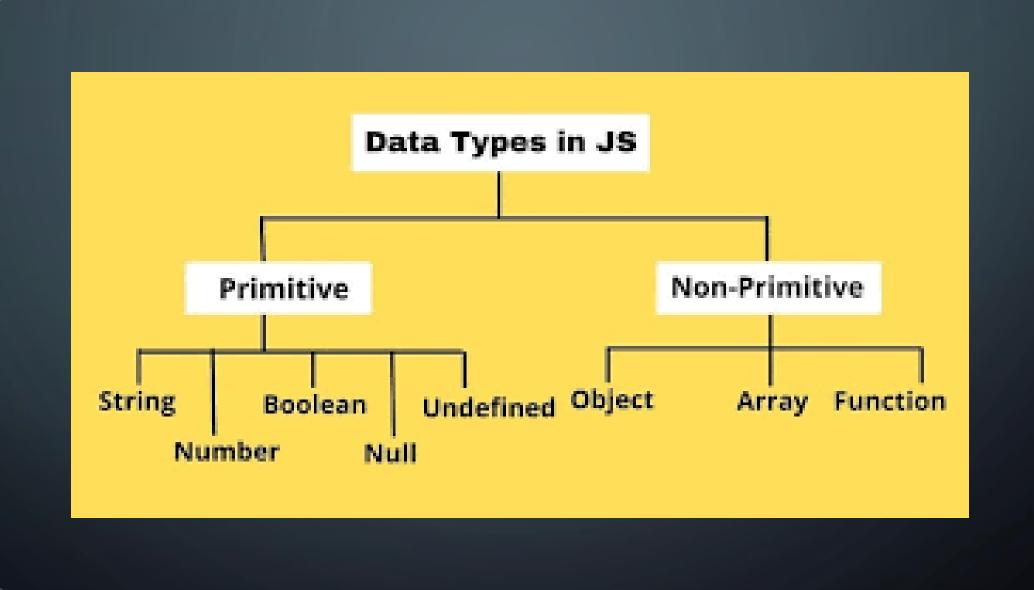
```
• Ex:
```

```
function(){
if(true){
   var a=12;
}
console.log(a);
}
```

CONST VARIABLE

- In this the value is used within brackets, if we change the value again means it doesn't.
- Ex: const a=12; when we change value again "a=5;" means it won't. because it is fixed value.
- Ex:

```
function(){
if(true){
    const a=12;
}
    console.log(a);
}
```



MAIN POINTS

- Javascript is a lossely typed or Dynamic language.
- So we don't have to declare a type of variable ahead of time.
- We can check the datatype by using "typeof" operator.

PRIMITIVE DATATYPES

• Number:

• String:

• Boolean:

Ex: ture or False

• Undefined:

No value we can't defined that in the code.

• Null:

NON PRIMITIVE DATATYPES

• Object: An object is a collection of properties, and a property is an association between a name (or key) and a value.

Ex: var Name= "Mujaheed";

Array: Array is a type of global object that is used to store the data.

Ex: var Age= {'20', '22', '45'};

• Function: a set of statements that performs a task or to calculate value.

```
Ex: Fucntion Add(){
    var a=4; b=5;
    document.write(a+b);
}
```

Variable Instance:

In phase 1 of execution context Js skims through the code and assign all varaibles with data type of undefined.

• Instance variable:

Instance variables are created when an object is instantiated, and are accessible to all the constructors, methods, or blocks in the class.