BASICS OF JAVASCRIPT:

1. Variables
2. Data Types
3. Functions
4. Conditional Statements
5. Loops
6. Operators

Variables:

Variables are programming language concepts that help us to store any data inside it.

*Types of variable declarations in javascript:*

1. var - Keywords
2. let - Keywords
3. const – Keywords

State in variables:

1. Declaration -  var x;
2. Initialization - var x = 10;
3. Re-Initialization - x = 12

Syntax:

var {variable\_name} = {value};

let {variable\_name} = {value};

const {variable\_name} = {value};

Example:

var playerName = “Sachin Tendulkar”;

var playerAge = 50;

Data Types:

Data Types are programming concepts that help to store any kind of value inside a variable.

*Types of Data Types:*

1. Number -  10, 20, 1, 100, 2000,
2. String - Anything which comes inside quotes called String - “Vishnu”, “[test@test.com](mailto:test@test.com)”, “100”
3. Boolean - True or False
4. Array - Collection one or more values of one or different data type in same memory memory
5. Objects - Collection of one or more values of one or different data type in same memory
6. NaN - Not a number.
7. undefined - A value that tells a variable has no data inside it.

ARRAY:

Syntax:

var numbeArray = [10, 20, 30, 40, 50]

var stringArray = [‘a’, ‘b’, ‘c’, ‘d’, ‘e’]

Loops:

Loops is a programming concept that helps us to run a block of a code for N times.

Types:

1. Basic For loop
2. forEach
3. for -in
4. For-of
5. Map
6. filter

Syntax:

for(start; end; jump) {

}

Example:

for(var x = 1; x <= 10; x = x + 1) {

    console.log('Running' + x)

}

Function:

Function is a javascript functionality that helps us to reuse javascript statements. A Function will have its own name and in order to execute a function we need to call by its name. A function will accept one or more inputs as an arguments.

Syntax:

**function**nameOfFunction() {

*// STATEMENTS GOES HERE*

}

Example:

function addTwoNumber(num1, num2, num3) {

   return num1 + num2 + num3

}

var totalSum1 = addTwoNumber(100, 20, 30)

var totalSum2 = addTwoNumber(90, 10, 5)

console.log(totalSum1, totalSum2)

Conditional Statements:

Conditional statements is a javascript functionality that helps us to execute block of code according to the satisfied condition.

Types of conditional statements:

1. IF ELSE
2. SWITCH

Syntax for IF ELSE:

if() {

}

else if()

{

}

else

{

}

Example:

function whatShouldIEat() {

    if (pocketMoney <= 100) {

               console.log("Eat Shawarma")

    }

    else if(pocketMoney > 100 && pocketMoney <= 200)

    {

             console.log("Eat biriyani")

    }

    else if(pocketMoney > 200 && pocketMoney <= 500)

    {

        console.log("Eat with family")

    }

    else

    {

            console.log("Eat less save more")

    }

}

function whatShouldIEat(pocketMoney) {

    var result = ‘’; // declare

    if (pocketMoney <= 100) {

               result = "Eat Shawarma"

    }

    else if(pocketMoney > 100 && pocketMoney <= 200)

    {

             result = "Eat biriyani"

    }

    else if(pocketMoney > 200 && pocketMoney <= 500)

    {

        result = "Eat with family"

    }

    else

    {

            result = "Eat less save more"

    }

    return result

}

Operators:

Operators are javascript functionalities that helps us to perform real world operation such as Arithmetic, Comparison etc.

Types of operators:

1. Arithmetic (+, -, /, \*, %)
2. Comparison (>, <, >=, <=, !=, ==, ===)
3. Logical (And &&, or ||, Not !)
4. Assignment (=, +=, -=, \*=, /=, %=)
5. Dot (.)

Comparison Operator:

Helps us to compare two same or different data. Comparison operator will result in **Boolean**.

Example:

10 > 9 - True

10 < 11 - True

100 < 99 - False

10 >= 9 -  OR Ans- True

1. 10 greater than 9 - True
2. 10 equal to 9 - False

10 <= 9 - OR - False

1. 10 lesser than 9 - False
2. 10 equal to 9 - False

== - Will check for value equality

=== - Will check for both value and Data Type equality

10 == 10 - True

10 == “10” - True

10 === 10 - true

10 === ‘Ten’ - false

10 === ‘10’ - false

! NOT

Logical Operator:

logical operators are symbols used to combine conditions and evaluate their truth values

Truth table:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | CASE 1 | CASE 2 | AND | OR |
|  | 0 (false) | 0 (false) | false | false |
|  | 0 (false) | 1 (true) | false | true |
|  | 1 (true) | 0 (false) | false | true |
|  | 1 (true) | 1 (true) | true | true |