* Explain all data types with examples.

Answer:- basically there are two type of dats type :

1.PRIMITIVE AND 2.NON-PRIMITIVE

* 1.PRIMITIVE : in primitive we have

• String = in string anything we write in quotes like “soojal”,”123”.these are string.[generally use for the characters}.

• Number = numerical value comes like integer and float.

• Boolean= just insure that our condition is true or false.

• Undefined= value present but can’t define.

• Null = nothing value comes.

• Symbol = The symbol data type in JavaScript defines a property of an object which is private to the object. The value with the Symbol data type can be referred to as a symbol value. The symbol refers to the ‘key’ of the key-value pair of an object. Every symbol is unique. Two symbols with the same key values are not the same.

let Name= "AnkurSingh";

let time = "11:02 AM";

let c=45;

let d=46.7

console.log(typeof c)

//2.string=> collection of character (normal text)

//string can be written in single '' or double qoutes ''

let e='rahul'

let f="pawan"

console.log(typeof e)

//3.boolean => represent a state (true/false)

let g=true

let h=false

console.log(e,typeof g)

//4.bigInt =>

let i=2324534545675787989890n

console.log(typeof i)

//5.symbol

let symbol1=Symbol('a')

console.log(symbol1)

let symbol2=Symbol('a')

console.log(symbol1==symbol2)

console.log(typeof symbol1)

//6.undefined =>when variable is not initialised

let j;

let k=undefined

console.log(typeof j)

//7.null =>

let l=null

console.log(typeof null)

• What is variable, how to create a variable?

Answer : so variable is like a storage container it means we use so for assign the value ,

Like let x = 4;

Here x is variable and we assign that 4 its value or I means 4 store in x address ,

Console.log (x);

• Explain all operators with an example

Answer : So operators

1. Arithmetic Operators = HERE +,-,\*,/,% are come

Let x =5;

Let b = 4;

Let c = x+b;

Console.log(X+b);

Let x-=4;

Console.log(x);

Let b\*=4;

Console.log(x);

Let x/=2

Console.log(x);

Let c%=3;

Console.log(c);

1. Assignment Operators => = (this is a assignment operator ) there are +=,-=,\*=,%=

Let x =5;

Let b = 4;

Let c = x+b;

Let x +=3;

Console.log (x);

Console.log(X+b);

Let x-=4;

Console.log(x);

Let b\*=4;

Console.log(x);

Let x/=2

Console.log(x);

Let c%=3;

Console.log(c);

1. Comparison Operators =

Comparison operators in JavaScript are used to compare two values and return a Boolean (true or false) based on whether the comparison is true or false. Here are the main comparison operators:

1. Equal (==)

Compares two values for equality, after converting both values to a common type (type coercion).

console.log(5 == '5'); // true

console.log(5 == 5); // true

console.log(5 == 6); // false

2. Not Equal (!=)

Compares two values for inequality, after converting both values to a common type (type coercion).

console.log(5 != '5'); // false

console.log(5 != 5); // false

console.log(5 != 6); // true

3. Strict Equal (===)

Compares two values for equality without converting their types (no type coercion).

console.log(5 === '5'); // false

console.log(5 === 5); // true

console.log(5 === 6); // false

4. Strict Not Equal (!==)

Compares two values for inequality without converting their types (no type coercion).

console.log(5 !== '5'); // true

console.log(5 !== 5); // false

console.log(5 !== 6); // true

5. Greater Than (>)

Checks if the value on the left is greater than the value on the right.

console.log(5 > 3); // true

console.log(5 > 5); // false

console.log(5 > 6); // false

6. Greater Than or Equal (>=)

Checks if the value on the left is greater than or equal to the value on the right.

console.log(5 >= 3); // true

console.log(5 >= 5); // true

console.log(5 >= 6); // false

7. Less Than (<)

Checks if the value on the left is less than the value on the right.

console.log(5 < 3); // false

console.log(5 < 5); // false

console.log(5 < 6); // true

8. Less Than or Equal (<=)

Checks if the value on the left is less than or equal to the value on the right.

console.log(5 <= 3); // false

console.log(5 <= 5); // true

console.log(5 <= 6); // true

3.Logical Operators = there are three types of logical operators

1. AND (&&)

Comparison of both condition if both condition is true the print true but there is only one condition is true and is false so it will be false .

Let x = 10;

Let b = 10;

Console.log(X=B);

1. OR (||)

IN THIS operator if only or both condition are true then it will print true .

let x = 5;

let y = 10;

if (x > 3 || y < 5) {

console.log('One or both conditions are true.');

} else {

console.log('Both conditions are false.');

}

// Outputs: "One or both conditions are true."

1. NOT (!)

It reverse the actual value it means if there is true in condition it become false and vice versa.

let isTrue = true;

let isFalse = false;

console.log(!isTrue); // Outputs: false

console.log(!isFalse); // Outputs: true