

JavaScript -1

"Intro" Largest And third component of Frontend is JS

Javascript is used to make a website functioning at the user end so that they interact with website

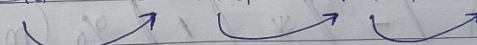
Using the console :

We can use browser's console to write JS code for temporary time

(Ctrl + L) \Rightarrow clear the console's code

console works on REPL method

REPL \Rightarrow Read - Evaluate - Print - loop

Variables \Rightarrow

variables are like container to store information their information (value) can be changed

Variable = value

Data types in JS →

Number, boolean, string, undefined, null

BigInt, Symbol

{ "typeof Variable" ⇒ used to get type of data in variable }

Number in JS →

(14) (-14) (12, -47) (2.48)

Positive, Negative, Integer, decimal → all are considered as number data type

{ Every data type has a limit of memory to store value }

operator in JS →

operands / operator

+ / - / * / / / % (modulo) [Get remainder]
** (exponentiation)

NaN in JS →

"Not a number"

NaN gives you always NaN after any operation

Operator Precedence →

Priority

() → ** → *, /, % → +, -

operator with same precedence Execute in order of left to right

- Except $**$ (Power) operator (Right to left)

Let, const & var → Keywords →

Let → mostly used

const → Can't changed

Var → old syntax

Assignment operators →

age = age + 1
or age += 1 (-=, *=, /=, %=, **=)

• $L = R$ → left ^{Variable} ~~value~~ get the value of right side

Unary operators →

works on one operands

• $\text{age} += 1$ // $\text{age} --$ (Pre increment/decrement)

• $++\text{age}$ // $--\text{age}$ (use, then change)
(post increment/decrement)
(change, then use)

Identifier rules →

- can contain → letters, digits, underscores, dollar
- start with → letter, dollar, underscore
- Case sensitive → a, A - are different
- keywords can't use → let, var, const

Writing case -

- camelCase
- snake_case
- PascalCase

boolean in JS →

true / false

{ variable's data type can be changed in JS }

TypeScript →

static typed version of JS
built by microsoft

String in JS →

defined in quotes " or '

it is sequence of characters

String indices → start from 0, 1, 2, ...

- Variable [0]
- Variable.length

// "value"[0]
// "value".length

- Concatination → $a = \text{Ram}$ $b = \text{shyam}$
 $c = a + b$
 $c = \text{Ramshyam}$

null / undefined →

null ⇒ With no value
undefined ⇒ don't know the value

JavaScript - 2

console.log() →

- this is a function to print something on console
{ log means write something (लिख देना)
• we can print many things together by separate them comma

`console.log("A", B, c)`

linking JS → .JS (extension type of Javascript)

- link by ⇒ script tag
• Place script tag at the end in body tag

Template Literals →

----- `{ }` -----

operators in JS →

Arithmetic → `(+, -, *, /, %, **)`

Unary → `(++, --)`

assignment → `(=, *=, /=, %=, **=)`

Comparison →

Logical →

Comparison operators → `>, >=, <, <=, ==, !=`

- these are compare ~~the variables/value~~
 ~~in~~ value not type

- `===` → compare type and value

Comparison for non-numbers →

for non-number it compares their unicode

Conditional Statements →

if, if-else, Nested if-else, switch

if statements →

```
if (condition) {  
    then do something  
}
```



```
else if (condition) {  
    code something  
}
```

- "else if" execute if "if" not true

```
else {  
    code  
}
```

- if all conditions false then "else's" condition execute

nested if else →

```
if (condition) {  
    if (condition) {  
        }  
}
```

Logical operators →

logical And	&&	(All condition need true for true)
logical OR		(At least one true for true)
logical Not	!	(opposite the condition $T \leftrightarrow F$)

Truthy & Falsey →

in JS everything has a boolean value

False values ⇒ false, 0, -0, BigInt value, empty string, null, undefined, NaN

true → everything else from there

Switch statement →

```
switch ( " " ) {
```

```
case — : some code ; break;
```

```
case — : — ; break;
```

```
case — : some — ; break;
```

```
default : some code ;
```

```
}
```

alert & prompts →

```
alert ( " " );
```

Alert ~~to~~ Popup on page

```
console.error ( " " );
```

showing error in console

```
console.warn ( " " );
```

showing warning in console

```
Prompt ( " " );
```

A input popup on page