IT Full-stack class for MERN

> Time to say Hello World! In Javascript

Console / terminal

To write a code -> code editor -> vs code

Process to write a Hello world program -> Create a file named index.js -> open the file in vs code -> write the program -> run the program

> in the case of javascript the file extension we use is <.js>

Why we need to use file extension? -> we have to tell the editor that what type of programming language we are using. File extension is different for every single language ->

> .java, .js, .php, .c, .cpp, .py, .sql, .rs, .go

As of now we will be using console to create files and we will use vs code to write code in that file.

```
touch index.js
```

Open the file using vs code and type this code -

```
console.log("hello world!");
```

```
node index.js
```

Hello world! (To run the code we have to use terminal) ✅

JavaScript Code Structure

↓

```
console.log("hello world"); console.log("hello world 2");
```

JavaScript Variables

```
console.log("Hello world");
output -> Hello world

let message = "Hello world"
```

```
console.log(message);
output -> Hello world

message = "world Hello"
console.log(message)
output -> world Hello
```

Variable -> to hold a state / data / value and the we can use it anywhere within the program.

Assign a value / Re-assigning a value

Variable -> Declare it and you define / assign a value to it.

> There are some rules to name a variable

=

Variable names can only contain alphabet letters, numbers, and underscores Ex message_1, user_name, user_country, user_profile_name, user_working_place_name

-> never start with numbers

> 1_message ❌

-> never user a reserved keyword for naming a variable

> console, if, for, while, switch ❌

-> variable names are case sensitive

> message = "hello world", Message = "world Hello" MESSAGE, message, Message ✅

> Naming conventions

Camel case -> let userName, let userProfile, let userProfilePicture Snake case -> let user_name, user_profile_picture

Constant Variable

When you need to store a value that never changes. Ex

```
const MAX_SPEED = 300
const userAccNo = 121321312
const userName = iamrocket
```

```
pwd -> to check the current directoy path (location)
mkdir -> to create a new folder
cd -> to change the current directory to the next directory
clear -> to clear the console / terminal
ls -> to list all the files in folder
```

```
touch -> to create a new file in the current directory
mv -> to rename a file, folder
```

JavaScript Basic Data Types

2 -> number, 0.2 -> floating number, Chinmay -> string (sequence of chars) A -> char % -> special char (char)

```
let message = "chinmay" -> string
```

Class 3, 03/06 STRING Any Noun (name of anything -> alphabetical sequence of anything) made of chars sequence (A to Z, a to z) -> Strings Or Anything between " " / ' ' is a string. The way we have to tell to the machine that it is a string -> we have to pass the noun in either " " Or ' ' Ex "Chinmay" ✅ Chinmay ❌ "123" ✅

NUMBERS Ex 123, 0.03, 00.00023

BOOLEANS true or false (1 or 0)

NULL

```
let user_name = null (user_name does not have any value)
```

It's easy to check for null values when we are checking errors rather than assigning a temporary value to the variable.

UNDEFINED When a variable has empty value, we say it or we get an undefined error.

Strings in Javascript

A series of characters

```
let message = "good morning"
"good morning' ❌
'good morning' ✅  (but the good practice is to define it in double)
```

> you can join two or more strings as one with the plus + Don't forget to add space before the next string

```
let message = "hello " + "good " + "morning"
console.log(message)
output -> hello good morning
```

We can pass variables and string together in console.log

```
let message = "hello"
console.log("This is a message " + message);
output -> This is a message hello
```

```
let name = "chinmay"
let topic = "japanese"
console.log(name + " is learning" + topic + " today");
output -> chinmay is learning japanese today
```

> Console.log can take anything and print it to the terminal / console