02

Data Types and Variables

WHAT YOU WILL LEARN

- ➢ JavaScript Comments
- ➢ Weakly and Dynamic Typed Programming Language
- ➢ JS Predefined Object console
- ➢ Variable with Datatypes

Java Script Comments

- ➢ JavaScript comments can be used to explain JavaScript code. It is not executed

1. Single Line   // - Any text between // and the end of the line will be ignored by JavaScript (will not be executed).
    - i. Example - `let x = 5;        // Declare x, give it the value of 5`
2. Multi-line Comments
   Any text between /* and */ will be ignored by JavaScript.

   ```
   /*
   The code below will change */
   ```

- ➢ Weakly Typed: weakly type language , means you have to specify type of the variable
  - ▪ Example – c,cpp,c#,vb.net, java etc..

- ➢ Dynamic Typed : dynamic type language, means you don't need to specify type of the variable because it is dynamically used by JavaScript engine.
  - ▪ Example – JavaScript , python

JS Predefined Object console

Console is predefined object of JavaScript

- error() - Outputs an error message to the console
    - example - console.error("You made a mistake");

- info() Outputs an informational message to the console
    - example - console.info("Hello world!");

- log() Outputs a message to the console
    - console.log("Hello world!");

- table() Displays tabular data as a table
    - Example - console.table(["Audi", "Volvo", "Ford"]);
    - console.table({firstname:"John", lastname:"Doe"});

➤ **Variable** A JavaScript variable is simply a name of storage location.

Variable Rules while declaring a JavaScript

- Name must start with a letter (a to z or A to Z), underscore (_), or dollar($) sign.
- After first letter we can use digits (0 to 9), for example value1.
- JavaScript variables are case sensitive, for example x and X are different variables

➤ **Data Types** - JavaScript provides different data types to hold different types of values. There are two types of data types in JavaScript.

1)Primitive data type - There are five types of primitive data types in JavaScript. They are as follows:

Data Type	Description
String	represents sequence of characters e.g. "hello"
Number	represents numeric values e.g. 100
Boolean	represents boolean value either false or true
Undefined	represents undefined value
Null	represents null i.e. no value at all

2)non-primitive (reference) data type - The non-primitive data types are as follows:

Data Type	Description
Object	represents instance through which we can access members
Array	represents group of similar values
RegExp	represents regular expression