Lesson 05 Demo 03

Implementing Maps and Classes

Objective: To implement maps and classes in JavaScript, focusing on enhancing data handling and object-oriented programming practices to optimize functionality within a web development framework

Tools required: Visual Studio Code

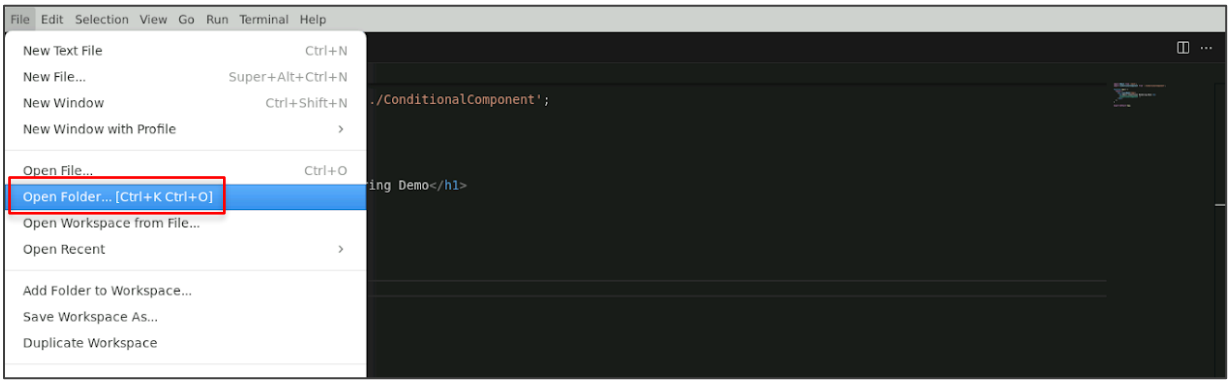
Prerequisites: None

Steps to be followed:

1. Create a JavaScript program using maps and classes
2. Test and verify their functionality

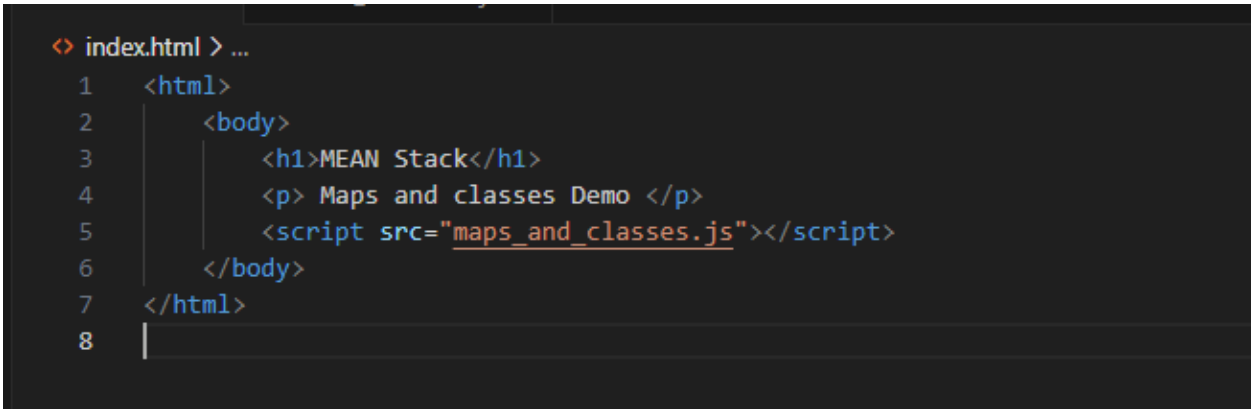
Step 1: Create a JavaScript program using maps and classes

1.1 Navigate to Visual Studio Code, right-click on the **File** menu of the code editor, and select the **Open Folder…** option:



1.2 Write the following code in **index.html**:

```
<html>
  <body>
    <h1>MEAN Stack</h1>
    <p> Maps and classes Demo </p>
    <script src="maps_and_classes.js"></script>
  </body>
</html>
```



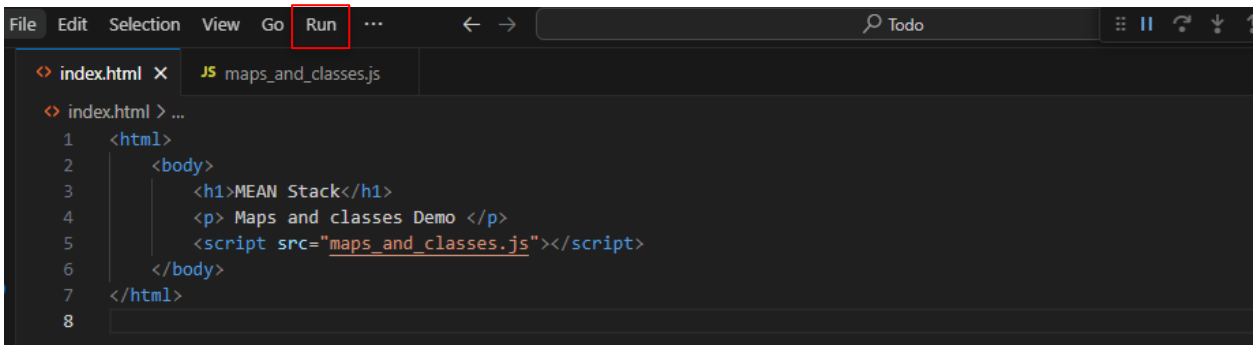
1.3 Click on the **src** folder of the project, select the **New File** option, enter the filename as **maps_and_classes.js,** and write the code shown below:

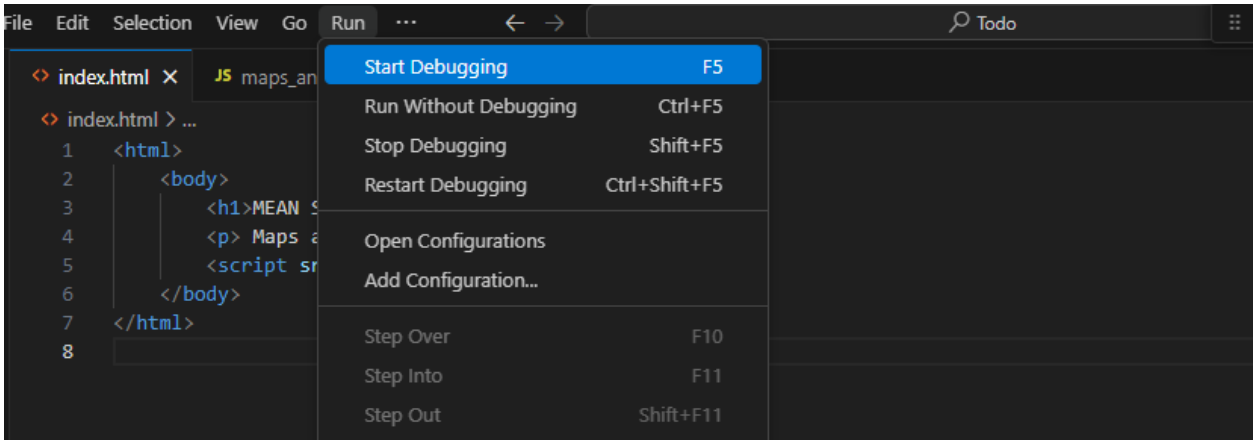
```
var map1 = new Map();
map1.set("first name", "Robb");
map1.set("last name", "Stark");
map1.set("friend 1","Bran")
   .set("friend 2","Arya");
console.log(map1);
console.log("map1 has friend 3 ? " + map1.has("friend 3"));
console.log("get value for key = friend 3 - "+ map1.get("friend 3"));
console.log("delete element with key = friend 2 - " + map1.delete("friend 2"));
map1.clear();
console.log(map1);
class Employee
{
   constructor(id,name)
   {
```

```
    this.id=id;
    this.name=name;
  }
  detail()
  {
 document.writeln(this.id+" "+this.name+"<br>")
  }
 }
//passing object to a variable
var e1=new Employee(101,"Michael");
var e2=new Employee(102,"Bob");
e1.detail();
e2.detail();
```

Step 2: Test and verify their functionality

2.1 Click on **Run** and then on **Start Debugging** to execute the JavaScript file





2.2 When the server starts running, right-click and select the **Inspect Element** option and click on the **Console** tab

By following the above steps, you have successfully created and tested a JavaScript program using maps and classes, effectively demonstrating their use in managing data and implementing object-oriented programming techniques within a web development framework.