Lesson 04 Demo 12

Implementing Functions and Prototyping

Objective: To implement and demonstrate the use of JavaScript functions and prototypes for creating and calculating ages of employee objects

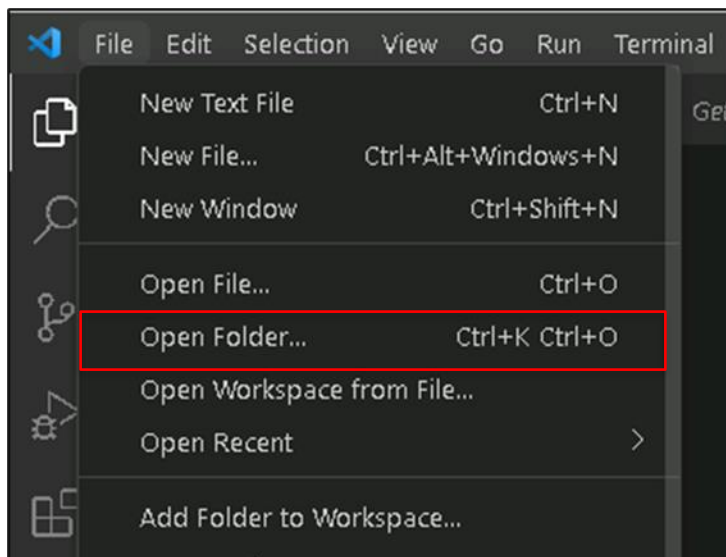**Tools required:** Visual studio code

Prerequisites: Basic understanding of functions and prototyping in JavaScript, ensure folder named **src** for saving the file
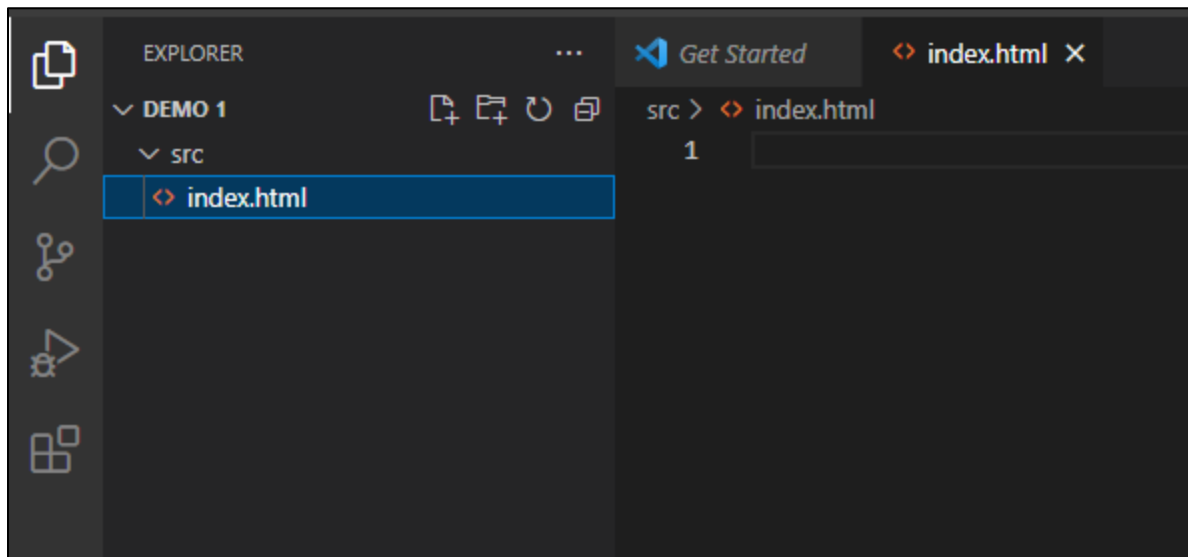
Steps to be followed:
1. Create and execute the file

Step 1: Create and execute the file

1.1 Open Visual Studio Code and right click on the **File** menu of the code editor and select the **Open Folder** option
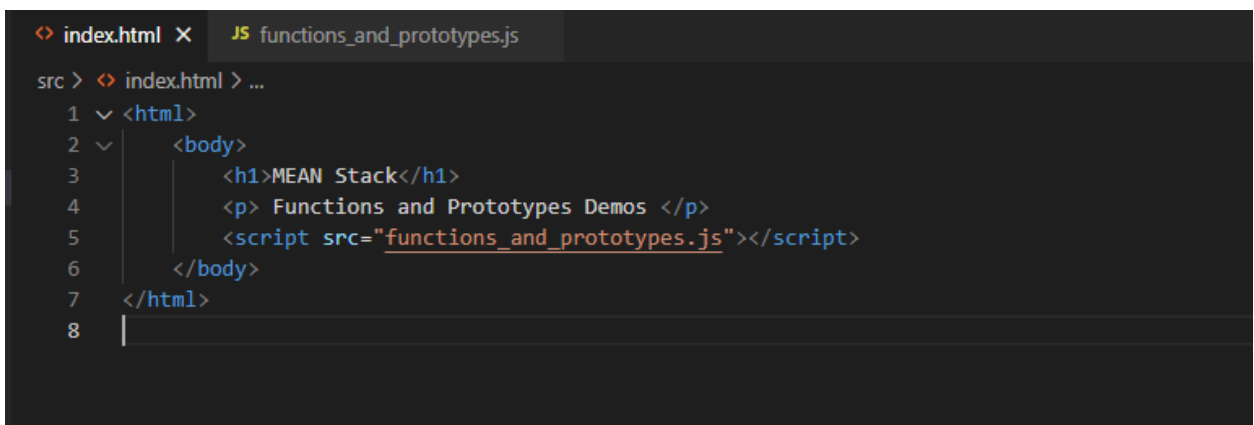
1.2 Select **src** folder of the project and select the **New File** icon and enter the filename as **index.html**:

1.3 Add the following code to the **index.html** file:

```
<html>
  <body>
    <h1>MEAN Stack</h1>
    <p> Functions and Prototypes Demo</p>
    <script src="functions_and_prototypes.js"></script>
  </body>
</html>
```

1.4 Right click on the **src** folder of the project, select **New File** option and enter the filename as **functions_and_prototypes.js** and add the following code:

```
// function constructor
function Employee(name, designation, yearOfBirth){
```

```
        this.name= name;
        this.designation= designation;
        this.yearOfBirth= yearOfBirth;
    }

    // creating calculateAge() method to the Prototype property
    Employee.prototype.calculateAge= function(){
        console.log('The current age is: '+(2022- this.yearOfBirth));
    }
    console.log(Employee.prototype);


    // creating Objects
    let Emp1= new Employee('Alex', 'Junior Tester', 1995);
    console.log(Emp1) ;
    Emp1.calculateAge();

    let Emp2= new Employee('Dexter', 'Senior Software Developer', 1990);
    console.log(Emp2)
    Emp2.calculateAge();

    let Emp3= new Employee('Annie', 'Junior HR', 1998);
    console.log(Emp3)
    Emp3.calculateAge();
```
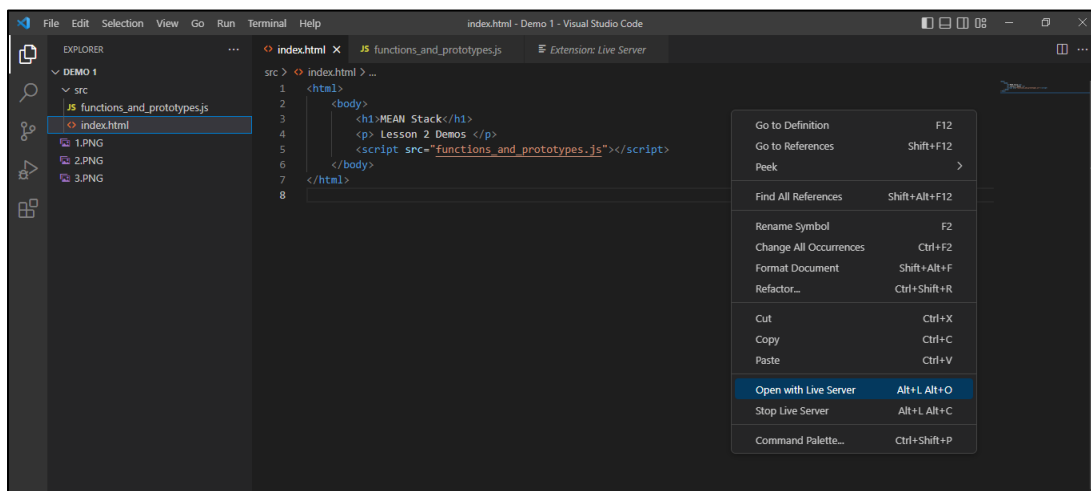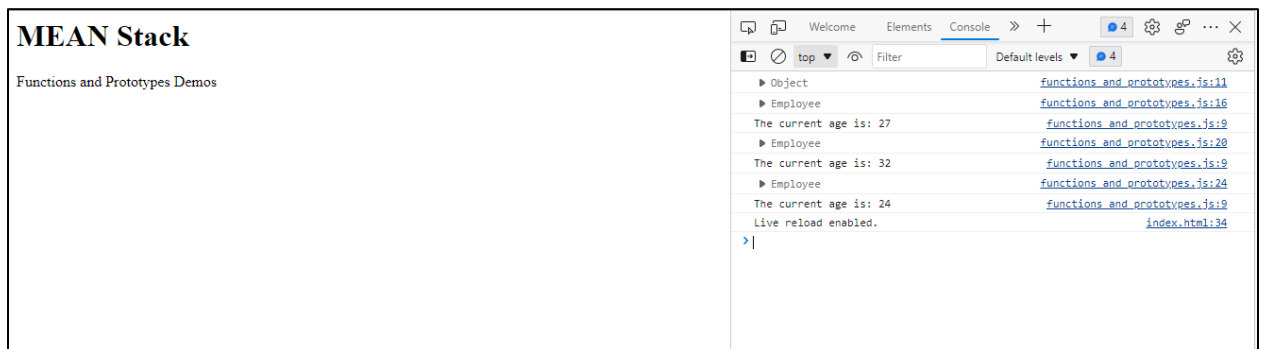
Note: Save the files

1.5 Right click on the **index.html** file of the project and select the **Open with Live Server** option

1.6 Once the server starts running, right click and select the **Inspect Element** option, and click on **Console** tab:

The provided code demonstrates the implementation of functions and prototypes. It includes creating objects using a function constructor, adding a method to the prototype property, and highlighting the results in the browser console.

By following these steps, you have successfully implemented and verified the use of JavaScript functions and prototypes to create and manage employee objects with calculated ages.