Lesson 04 Demo 06

Working with Objects

Objective: To create an object in Node.js for storing and manipulating data

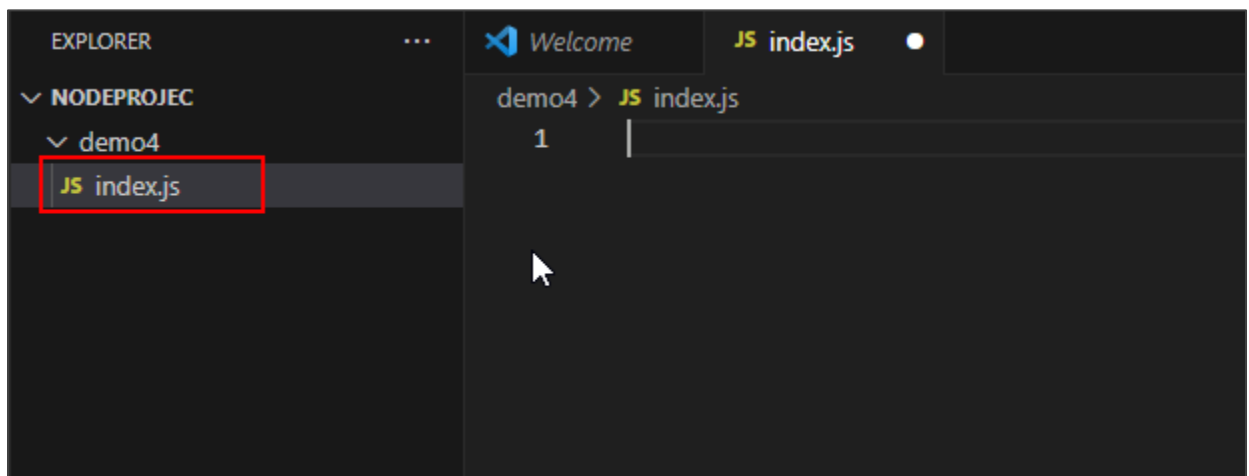**Tools required:** Visual Studio Code and Node Package Manager

Prerequisites: Basic Linux and NPM commands

Steps to be followed:

1. Declare a simple object
2. Perform operations on an object

Step 1: Declare a simple object

1.1 Open the project directory with VS Code and create a file named index.js

1.2 Write the following code in the **index.js** file to declare an object:

const obj = {
   "name": "Fionna",
   "age": 32,
   "email": "fionna@example.com",
   "phone": "1234567890",
   "website": "https://example.com",
   "active": false,
   "hobbies": ["Playing", "Cooking"],
   "address": {
     "street": "ABC",
     "city": "Ludhiana",
     "state": "punjab",
     "country": "India"
   }
 };

console.log(obj)

```
demo4 > JS index.js > [●] obj > 🔧 "address"
  1      const obj = {
  2          "name": "Fionna",
  3          "age": 32,
  4          "email": "fionna@example.com",
  5          "phone": "1234567890",
  6          "website": "https://example.com",
  7          "active": false,
  8          "hobbies": ["Playing", "Cooking"],
  9          "address": {
 10              "street": "ABC",
 11              "city": "Ludhiana",
 12              "state": "punjab",
 13              "country": "India"
 14          }
 15      };
 16
 17      console.log(obj) I
 18
```

1.3 Open the terminal and navigate inside the project directory, and execute the following
command to run the Node.js app:

node index.js

```
demopython1yopm@ip-172-31-16-204:~/Desktop/nodeProjec/demo4$ node index.js
{
  name: 'Fionna',
  age: 32,
  email: 'fionna@example.com',
  phone: '1234567890',
  website: 'https://example.com',
  active: false,
  hobbies: [ 'Playing', 'Cooking' ],
  address: {
    street: 'ABC',
    city: 'Ludhiana',
    state: 'punjab',
    country: 'India'
  }
}
```

Step 2: Perform operations on an object

2.1 Modify the code to add a new key-value pair to the declared object:

```
const obj = {
    "name": "Fionna",
    "age": 32,
    "email": "fionna@example.com",
    "active": false,
    "hobbies": ["Playing", "Cooking"],
    "address": {
        "city": "Ludhiana",
        "state": "punjab"
    }
};

console.log(">>> Getting Value: ", obj['name']);
console.log(">>> Before Updation: ", obj);

// Adding New Value
obj['phone'] = "1234567890"

// Adding New KeyValue in nested Obj
obj['address']['country'] = "India"
```

```
demo4 > JS index.js > ...
    1       const obj = {
    2           "name": "Fionna",
    3           "age": 32,
    4           "email": "fionna@example.com",
    5           "active": false,
    6           "hobbies": ["Playing", "Cooking"],
    7           "address": {
    8               "city": "Ludhiana",
    9               "state": "punjab"
   10           }
   11       };
   12
   13       console.log(">>> Getting Value: ", obj['name']);
   14       console.log(">>> Before Updation: ", obj);
   15
   16       // Adding New Value
   17       obj['phone'] = "1234567890"
   18
   19       // Adding New KeyValue in nested Obj
   20       obj['address']['country'] = "India"
   21
```

2.2 Modify the code to update a value in the object:

// Updating New Value

obj['name'] = "Fionna Peterson"

obj['age'] = 24

console.log(">>> After Updation: ", obj)

```
   18
   19       // Adding New KeyValue in nested Obj
   20       obj['address']['country'] = "India"
   21
   22       // Updating New Value
   23       obj['name'] = "Fionna Peterson"
   24       obj['age'] = 24
   25
   26       console.log(">>> After Updation: ", obj)
   27
```

2.3 Run the Node.js app to get the values from the object:

node index.js

```
demopython1yopm@ip-172-31-16-204:~/Desktop/nodeProjec/demo4$ node index.js
>>> Getting Value:  Fionna
>>> Before Updation:  {
  name: 'Fionna',
  age: 32,
  email: 'fionna@example.com',
  active: false,
  hobbies: [ 'Playing', 'Cooking' ],
  address: { city: 'Ludhiana', state: 'punjab' }
}
>>> After Updation:  {
  name: 'Fionna Peterson',
  age: 24,
  email: 'fionna@example.com',
  active: false,
  hobbies: [ 'Playing', 'Cooking' ],
  address: { city: 'Ludhiana', state: 'punjab', country: 'India' },
  phone: '1234567890'
}
```

By following these steps, you have successfully created an object in Node.js for storing and manipulating data.