

Practical No.1

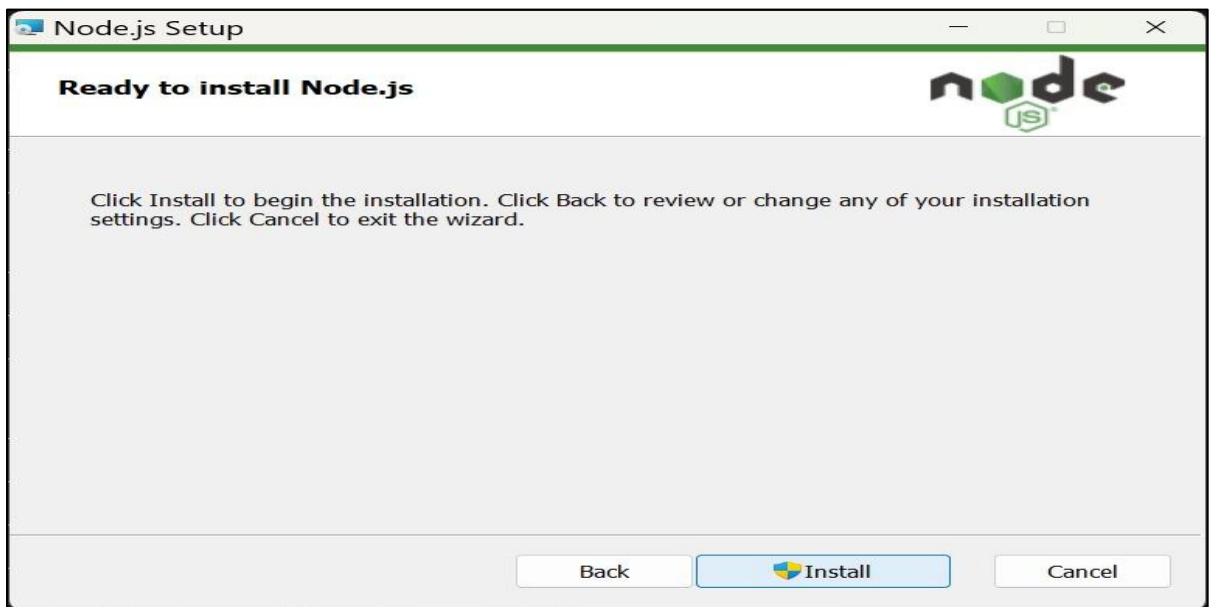
AIM : Setup environment for Angular framework by Installing Node.js, npm package manager using editor like Visual Code.

Step 1 : Download Node.js

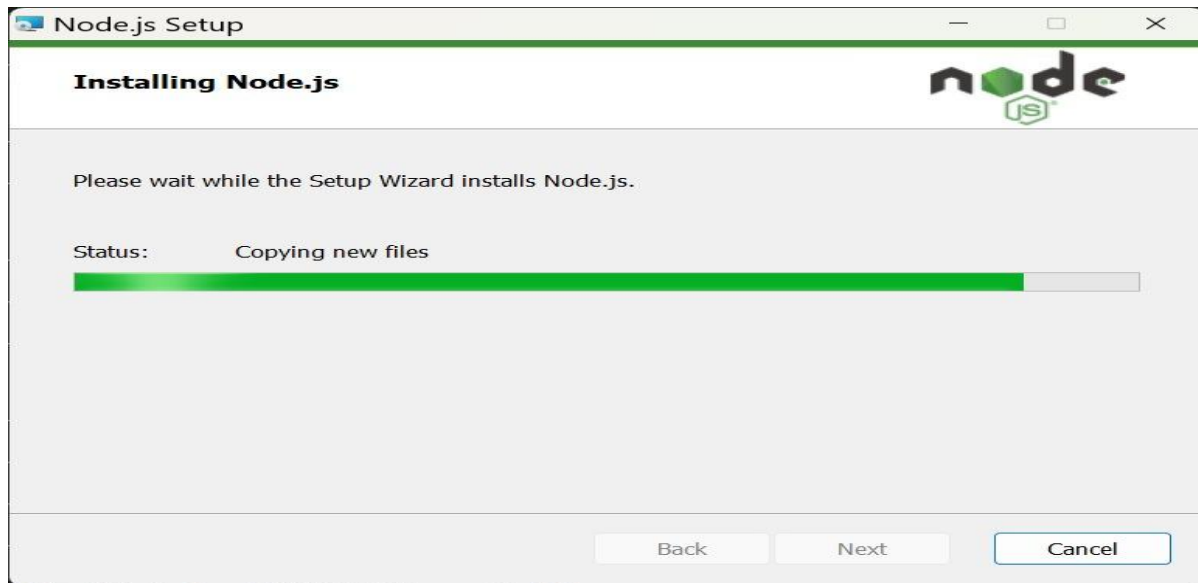
- Open your web browser and visit the official Node.js website.
- For better stability, download the LTS (Long-Term Support) version.
- Alternatively, you can choose a specific version, such as **Node.js v18.10.0 (Windows 64-bit)**.

Step 2 : Install Node.js

- ☐ Find the downloaded **.msi** file and double-click to open the installer.
- ☐ Follow the installation steps:
 - Accept the license agreement.
 - Select the installation directory (default is recommended).
 - Make sure the "**Add to PATH**" option is enabled (this allows Node.js to be accessed via the command line).
 - Click **Next**, then **Install** to complete the setup.



Step 3 : Installation Process Starts



Step 4 : Verify Node.js and npm Installation

- Open **Command Prompt (cmd)** or **PowerShell**.
- Run the following commands to confirm the installation:
 1. `node -v` → Displays the installed Node.js version.
 2. `npm -v` → Shows the installed npm (Node Package Manager) version.

```
PS D:\My Diploma\Semester 4\MPT> npm install -g @angular/cli@16.2.0
```

Practical No.2

AIM : Create first application to print Hello World message using angular framework.

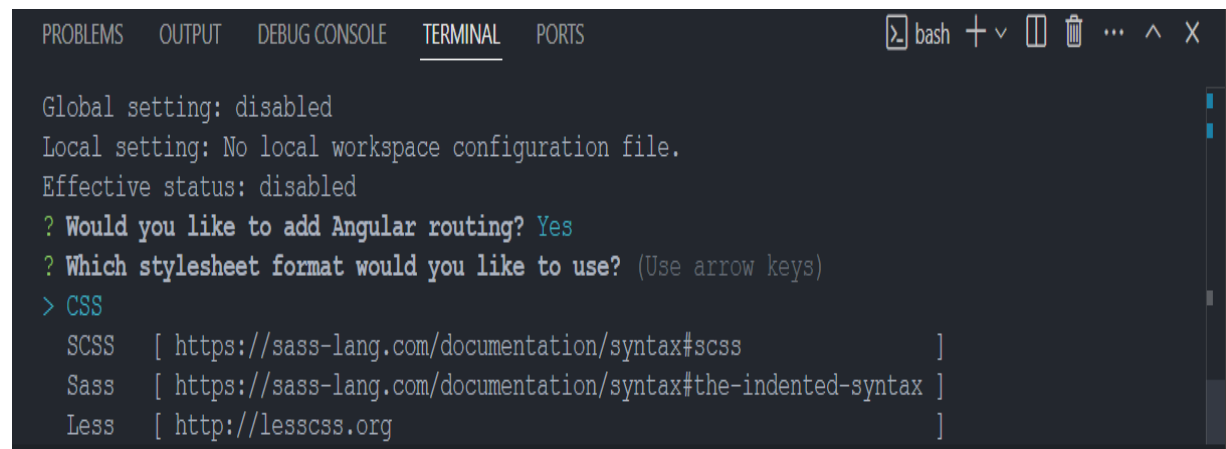
Step 1 : Create a new app

- Navigate to the directory where Angular CLI is installed.
- Open a terminal in **Visual Studio Code** or use **Command Prompt**.
- Run the following command to create a new Angular project:

```
ng new appname
```

Step 2 : Select routing and stylesheet format

- After running the command from **step 1**. Whether routing is required or not, must be selected along with format of stylesheet.
- Some formats of stylesheet are :
 - **CSS**
 - **SCSS**
 - **Sass**
 - **Less**



```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS  bash + v [ ] [ ] ... ^ X

Global setting: disabled
Local setting: No local workspace configuration file.
Effective status: disabled
? Would you like to add Angular routing? Yes
? Which stylesheet format would you like to use? (Use arrow keys)
> CSS
  SCSS [ https://sass-lang.com/documentation/syntax#scss ]
  Sass [ https://sass-lang.com/documentation/syntax#the-indented-syntax ]
  Less [ http://lesscss.org ]
```

Step 3 : Successful creation of app

- After choosing the **routing option** and **stylesheet format**, Angular CLI will install all the required packages.
- Once the installation is complete, you will see a success message indicating that your Angular project is ready to use.

```
? Would you like to add Angular routing? Yes
? Which stylesheet format would you like to use? CSS
CREATE my-first-app/angular.json (2730 bytes)
CREATE my-first-app/package.json (1043 bytes)
CREATE my-first-app/README.md (1064 bytes)
CREATE my-first-app/tsconfig.json (901 bytes)
CREATE my-first-app/.editorconfig (274 bytes)
CREATE my-first-app/.gitignore (548 bytes)
CREATE my-first-app/tsconfig.app.json (263 bytes)
CREATE my-first-app/tsconfig.spec.json (273 bytes)
CREATE my-first-app/.vscode/extensions.json (130 bytes)
CREATE my-first-app/.vscode/launch.json (470 bytes)
CREATE my-first-app/.vscode/tasks.json (938 bytes)
CREATE my-first-app/src/main.ts (214 bytes)
CREATE my-first-app/src/favicon.ico (948 bytes)
CREATE my-first-app/src/index.html (296 bytes)
CREATE my-first-app/src/styles.css (80 bytes)
CREATE my-first-app/src/app/app-routing.module.ts (245 bytes)
CREATE my-first-app/src/app/app.module.ts (393 bytes)
CREATE my-first-app/src/app/app.component.html (23115 bytes)
CREATE my-first-app/src/app/app.component.spec.ts (1009 bytes)
CREATE my-first-app/src/app/app.component.ts (216 bytes)
CREATE my-first-app/src/app/app.component.css (0 bytes)
CREATE my-first-app/src/assets/.gitkeep (0 bytes)
✓ Packages installed successfully.
```

Step 4 : Navigating to app & Compile the App

- Once all packages are installed, the app is set up successfully.
- Move into the app directory using the following command:
cd appname
- Use the following command to compile and run the Angular application:
ng serve -o
or
ng serve
- This command **builds the application** and **starts the web server**.
- The app will open automatically in the browser if -o is used.

```
PS D:\My Diploma\Semester 4\MPT> cd my-first-app
PS D:\My Diploma\Semester 4\MPT\my-first-app> ng serve
✓ Browser application bundle generation complete.
```

Initial Chunk Files	Names	Raw Size
vendor.js	vendor	2.35 MB
polyfills.js	polyfills	331.94 kB
styles.css, styles.js	styles	229.21 kB
main.js	main	49.36 kB
runtime.js	runtime	6.52 kB
Initial Total		2.96 MB

```
Build at: 2025-01-19T15:03:56.068Z - Hash: db8441f962cad0a4 - Time: 32701ms
```

```
** Angular Live Development Server is listening on localhost:4200, open your browser on http://localhost:4200/ **
```

```
✓ Compiled successfully.
```

Practical No.3

AIM : Design a web page to utilize property binding and event binding concepts using button and textbox controls.

app.component.html

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <app-binding></app-binding>
</body>
</html>
```

app.component.ts

```
import { Component } from '@angular/core';
@Component({
  selector: 'app-root',
  templateUrl: './app.component.html',
  styleUrls: ['./app.component.css']
})
export class AppComponent {
  title = 'practical3';
}
```

app.module.ts

```
import { NgModule } from '@angular/core';
import { BrowserModule } from '@angular/platform-browser';

import { AppRoutingModuleModule } from './app-routing.module';
import { AppComponent } from './app.component';
import { BindingComponent } from './binding/binding.component';
import { FormsModule } from '@angular/forms';

@NgModule({
  declarations: [
    AppComponent,
    BindingComponent
  ],
  imports: [
    BrowserModule,
    AppRoutingModuleModule,
```

```

    FormsModule
  ],
  providers: [],
  bootstrap: [AppComponent]
})
export class AppModule { }

```

binding.component.html

```

<div style="margin-top: 50px;margin-left: 50px;">
<div class="container">
    <input type="text"placeholder="Enter name" [(ngModel)]="name"><br><br>
    <input type="number" name="" id=""placeholder="Enter enrollment number"
[(ngModel)]="enrollmentno"><br><br>
    <input type="text" name="" id=""placeholder="Enter college name"
[(ngModel)]="collegename"><br><br>
    <!-- <input type="image" src="assets/car.jpg" alt=""style="height: 100px;width: 100px;"> -->
<button (click)="save()">Print</button><br><br>
</div>
<div class="info"style="text-align:center">

    <h2><strong>{ { nm } }</h2> <br><br>
    <h2>{ { eno } }</h2> <br><br>
    <h2>{ { cn } } </h2>
</div>
</div>

```

binding.component.css

```

.
container{
    display: flex;
    flex-direction: column;
    padding: 20px;
    border: 3px solid black;
    border-radius: 10px;
}
input{
    height: 40px;
    border-color: black;
    border-radius: 10px;
}
button{
    width: 150px;
    margin-left: 46%;
    height: 50px;
    background-color: white;
    color: black;
    border-radius: 50px;
}
button:hover{

```

```
background-color: black;
color: white;

}
```

binding.component.ts

```
import { Component } from '@angular/core';
@Component({
  selector: 'app-binding',
  templateUrl: './binding.component.html',
  styleUrls: ['./binding.component.css']
})
export class BindingComponent {
  name : string = "";
  enrollmentno : number | null = null;
  collegename : string = "";
  // userimage : string = "";
  nm = "";
  eno : number | null = null;
  cn = "";
  save(){
    this.nm = this.name;
    this.eno = this.enrollmentno;
    this.cn =this.collegename;
  }
}
```


Output

Nemis

236270307091

GPP

Print

Name Is : Nemis

Enrollment No. is : 236270307091

College Name Is : GPP

Practical No.4

AIM : Create various components of web page using Attribute Directives.

app.component.html

```
<app-header></app-header>
<app-navbar></app-navbar>
<app-slider></app-slider>
<app-mainbody></app-mainbody>
<app-footer></app-footer>
```

header.component.html

```
<header>
  <div style="display: flex; border: 2px solid red;background-color: #eddbce;">
    
    <p class="mt-3">Organization Name</p>
  </div>
</header>
```

navbar.component.html

```
<div style="background-color: rgb(209, 134, 183); padding: 6px 0px">
  <div
    style="background-color: rgb(241, 187, 187);display: flex;justify-content: space-between;">
    <ul style="list-style-type: none; display: flex; color: red;">
      <li class="ms-2 p-1">HOME</li>
      <li class="ms-2 p-1">ABOUT US</li>
      <li class="ms-2 p-1">DESTINATIONS</li>
      <li class="ms-2 p-1">BOOKING</li>
      <li class="ms-2 p-1">CONTACT US</li>
    </ul>
    <div class="p-1">
      <input type="search" placeholder="Search..." /><button class="ms-2 me-2">
        Search
      </button>
    </div>
  </div>
</div>
```

mainBody.component.html

```
<div style="background-color: rgb(211, 211, 211);display: flex;justify-content: space-around;"
class="p-4">
  <div class="bg-white me-4" style="border: 2px dashed red">
    <p class="text-danger ms-3" style="margin-top: 30px;margin-bottom:0px;font-size:25px;">
      <u style="color: red"><b>Adalaj Vav</b></u>
    </p>
    <p class="p-3">
      Adalaj Stepwell, also known as Adalaj Vav, is a five-story stepwell located in the village of
```

Adalaj in the Indian state of Gujarat. It was built in 1499 by Queen Rudabai, the wife of the Vaghela chief, Veer Singh. One of the unique features of the stepwell is the presence of an octagonal opening in the ceiling of the fourth level. This opening allows sunlight to enter the stepwell, illuminating carvings and sculptures. Today, Adalaj Stepwell is a popular tourist destination and a testament to the architectural and engineering skills of ancient India.

</p>

<div style="display: flex" class="mb-4">
 <button class="bg-danger text-light p-2 mt-2" style="margin-left: 400px; border: none; border-radius: 18px">More about</button>
</div>

</div>
<div class="bg-white" style="border: 2px dashed red">
<p class="text-danger ms-3" style="margin-top: 30px; margin-bottom: 0px; font-size: 25px;">
 <u style="color: red">Metro Ahmedabad</u></p>
<p class="p-3">

Metro Ahmedabad is a rapid transit system that serves the city of Ahmedabad in the Indian state of Gujarat. The metro system was launched in 2019 and is operated by the Gujarat Metro Rail Corporation (GMRC). As of 2023, the Metro Ahmedabad has two operational lines: The 22.8-kilometer-long Green Line, which has 20 stations and connects Vastrapur in the east to Thaltej in the west. The 6.5-kilometer-long Orange Line, which has 6 stations and runs between Gyanpur Depot and Apparel Park. The trains are air-conditioned and equipped with CCTV cameras, public address systems, and emergency communication systems.</p>

<div style="display: flex">
 <button
 class="bg-danger text-light p-2"
 style="margin-left: 500px; margin-top: 30px; border: none; border-radius: 18px">
 More about
 </button>
</div>
</div>
</div>

slider.component.html

<div style="border: 2px solid red; display: flex">

<p>
 Kankariya Maninagar is a popular area located in the city of Ahmedabad, Gujarat, India. It is a residential and commercial area that is known for its vibrant atmosphere and bustling streets. One of the major attractions of Kankariya Maninagar is Kankaria Lake which is one of the largest lakes in Ahmedabad. The lake is There is also a zoo, toy train, balloon ride, and other attractions around the lake. Another popular attraction in Kankariya Maninagar is the Maninagar Swaminarayan Temple, which is a Hindu temple dedicated to Lord Swaminarayan. The temple is known for its beautiful architecture and intricate carvings, and it is visited by thousands of devotees every year. Apart from these attractions, Kankariya Maninagar also has a variety of restaurants, cafes, and shopping centers, making it a popular

destination for food an shopping enthusiasts. Overall, Kankariya Maninagar is a vibrant and bustling area that is worth a visit when exploring Ahmedabad.

</p>
</div>

footer.component.html

<footer style="background-color: rgb(209, 134, 183);" class="p-4 text-center">Copyright C 2023 All rights reserved I Developed by Organization Name</footer>

angular.json

```
{
  "$schema": "./node_modules/@angular/cli/lib/config/schema.json",
  "version": 1,
  "newProjectRoot": "projects",
  "projects": {
    "practical4": {
      "projectType": "application",
      "schematics": {},
      "root": "",
      "sourceRoot": "src",
      "prefix": "app",
      "architect": {
        "build": {
          "builder": "@angular-devkit/build-angular:browser",
          "options": {
            "outputPath": "dist/practical4",
            "index": "src/index.html",
            "main": "src/main.ts",
            "polyfills": [
              "zone.js"
            ],
            "tsConfig": "tsconfig.app.json",
            "assets": [
              "src/favicon.ico",
              "src/assets"
            ],
            "styles": [
              "src/styles.css",
              "node_modules/bootstrap/dist/css/bootstrap.min.css"
            ],
            "scripts": [
              "node_modules/bootstrap/dist/js/bootstrap.min.js"
            ]
          },
          "configurations": {
            "production": {
              "budgets": [
                {

```

```
    "type": "initial",
    "maximumWarning": "500kb",
    "maximumError": "1mb"
  },
  {
    "type": "anyComponentStyle",
    "maximumWarning": "2kb",
    "maximumError": "4kb"
  }
],
"outputHashing": "all"
},
"development": {
  "buildOptimizer": false,
  "optimization": false,
  "vendorChunk": true,
  "extractLicenses": false,
  "sourceMap": true,
  "namedChunks": true
}
},
"defaultConfiguration": "production"
},
"serve": {
  "builder": "@angular-devkit/build-angular:dev-server",
  "configurations": {
    "production": {
      "browserTarget": "practical4:build:production"
    },
    "development": {
      "browserTarget": "practical4:build:development"
    }
  },
  "defaultConfiguration": "development"
},
"extract-i18n": {
  "builder": "@angular-devkit/build-angular:extract-i18n",
  "options": {
    "browserTarget": "practical4:build"
  }
},
"test": {
  "builder": "@angular-devkit/build-angular:karma",
  "options": {
    "polyfills": [
      "zone.js",
      "zone.js/testing"
    ],
    "tsConfig": "tsconfig.spec.json",
    "assets": [
      "src/favicon.ico",
```

```
        "src/assets"
      ],
      "styles": [
        "src/styles.css"
      ],
      "scripts": []
    }
  }
}
}
```

Output

 Organization Name

HOME ABOUT US DESTINATIONS BOOKING CONTACT US

Search: Search



Kankariya Maninagar is a popular area located in the city of Ahmedabad, Gujarat, India. It is a residential and commercial area that is known for its vibrant atmosphere and bustling streets. One of the major attractions of Kankariya Maninagar is the Kankaria Lake, which is one of the largest lakes in Ahmedabad. The lake is surrounded by a beautiful garden and a well-maintained walkway, making it a popular spot for morning walks and evening strolls. There is also a zoo, toy train, balloon ride, and other attractions around the lake. Another popular attraction in Kankariya Maninagar is the Maninagar Swaminarayan Temple, which is a Hindu temple dedicated to Lord Swaminarayan. The temple is known for its beautiful architecture and intricate carvings, and it is visited by thousands of devotees every year. Apart from these attractions, Kankariya Maninagar also has a variety of restaurants, cafes, and shopping centers, making it a popular destination for food and shopping enthusiasts. Overall, Kankariya Maninagar is a vibrant and bustling area that is a must-visit when exploring Ahmedabad.

Adalaj Vav

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