- sudo npm install -g @angular/cli (**@angular/cli** → Angular CLI (Command Line Interface), a tool used to create, manage, and build Angular applications)
- sudo npm install -g npm@11.2.0
- ng version
- ng new first-hello-world
- cd first-hello-world/
- cursor .
- npm install
- ng serve

Angular is a **TypeScript-based front-end framework** developed by Google for building **single-page applications (SPAs)**. It follows the **MVC (Model-View-Controller)** pattern and uses **components** to build UI.

📄 **File: src/index.html**
- ◆ **User opens the browser** → index.html loads (contains <app-root>).

📄 **File: src/main.ts**
- ◆ main.ts executes → Calls bootstrapApplication(AppComponent, appConfig).

📄 **File: src/app/app.component.ts**
- ◆ AppComponent initializes (Standalone Component).

📄 **File: src/app/app.component.html**
- ◆ AppComponent template is rendered inside <app-root>.

📄 **File: src/app/app.config.ts** *(if exists)*
- ◆ **Additional settings** (e.g., Routing, Services) are applied.

📄 **File: src/app/app.routes.ts** *(if routing is used)*
- ◆ Defines available navigation paths (/home, /about).

app.component.ts

```
import { Component } from '@angular/core';
import { RouterOutlet } from '@angular/router';

@Component({
 selector: 'app-root',
 imports: [RouterOutlet],
 templateUrl: './app.component.html',
```

```
    styleUrl: './app.component.css'
})
export class AppComponent {
 title = 'second-app';
 currentColor = '#cccccc';


 changeColor(color: string) {
   this.currentColor = color;
 }
}
```

app.component.css

```css
.container {
   display: flex;
   flex-direction: column;
   align-items: center;
   justify-content: center;
   height: 100vh;
 }
 .color-change {
   text-align: center;
   padding: 20px;
   border: 1px solid #ccc;
   border-radius: 5px;
 }
 .color-box {
   width: 100px;
   height: 100px;
   margin: 20px auto;
   border-radius: 5px;
   border: 1px solid #ccc;
   transition: background-color 0.3s ease;
 }
 .color-controls {
   margin-top: 10px;
   display: flex;
   justify-content: center;
   gap: 10px;
 }


 button {
   padding: 10px 20px;
   border: none;
```

```css
    border-radius: 5px;
  cursor: pointer;
  font-weight: bold;
  transition: background-color 0.3s ease;
}

button:hover {
  background-color: #333;
  color: #fff;
  transform: scale(1.05);
}
button:nth-child(1) {
  background-color: #ff0000;
  color: white;
}
button:nth-child(2) {
  background-color: #00ff00;
  color: white;
}
button:nth-child(3) {
  background-color: #0000ff;
  color: white;
}
button:nth-child(4) {
  background-color: #800080;
  color: white;
}
```

app.component.html

```html
<main class="main">
 <div class="container">
   <h1> Second Angular App</h1>
   <p> This is a second Angular App</p>
   <div class="color-change">
    <h2>Color Change</h2>
    <div class="color-box" [style.backgroundColor]="currentColor"></div>
    <div class="color-controls">
     <button (click)="changeColor('red')">Red</button>
     <button (click)="changeColor('blue')">Blue</button>
     <button (click)="changeColor('green')">Green</button>
```

```html
        <button (click)="changeColor('purple')">Purple</button>
      </div>
    </div>
  </div>
</main>
<router-outlet />
```