Install and Configure Angular CLI and Create First Application

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**Task 1: Setup Angular CLI and First App**

**🎯 Focus Area**: *Modern Setup*

**🔍 1. Purpose**

Setting up the Angular CLI and creating your first Angular app is the foundation for building scalable frontend applications. Angular CLI is a powerful command-line interface tool that automates tasks like project scaffolding, building, testing, and serving Angular apps.

**📘 2. Theory**

* **Angular CLI**: A command-line tool to initialize, develop, scaffold, and maintain Angular applications.
* **Project Initialization**: Using ng new to create a ready-to-go Angular app with all essential configurations.
* **Development Server**: Angular uses a live development server to preview changes instantly (ng serve).
* **File Structure**: Understanding basic folders like src/app, src/assets, angular.json, etc.

**⚙️ 3. Prerequisites**

* Install **Node.js (LTS)**: [Node.js — Run JavaScript Everywhere](https://nodejs.org/)
* Install **Angular CLI** globally using npm

npm install -g @angular/cli

Check installation:

ng version

**🛠️ 4. Code Example — Step-by-Step CLI Setup**

**✅ Step 1: Create Angular App**

ng new student-course-app

Follow the prompts:

* Would you like to add Angular routing? → Yes
* Which stylesheet format would you like to use? → CSS / SCSS (your choice)

**✅ Step 2: Navigate into project folder**

cd student-course-app

**✅ Step 3: Run the development server**

ng serve

Output:  
Visit [http://localhost:4200](http://localhost:4200/) in your browser to see the running Angular app.

**📁 5. Project Structure Snapshot**

student-course-app/

│

├── src/

│ ├── app/ # Core app logic

│ │ ├── app.component.ts # Root component

│ │ └── app.module.ts # Root module

│ └── assets/ # Static files like images

│

├── angular.json # Angular project config

├── package.json # NPM dependencies

└── tsconfig.json # TypeScript config

**🧠 6. Summary**

* Installed Angular CLI
* Created and served the first Angular app
* Understood the purpose of core folders and files