

## Introduction to Angular

- Angular is a **client-side framework** for building **single-page client applications** using **HTML** and **Typescript** (superset of JavaScript).
- Angular is developed by **Google**.
- Angular can be integrated any **server-side technologies** such as **Java, NodeJS, .Net, PHP, Python** etc.
- Angular is the most-used client-side framework compare with other like **React, Vue, etc.**
- Current Version is Angular 14.

### Organizations using Angular:



### Features:

1. **Supports SPA (Single Page Application)**  
SPA provides client-side navigation system to communicate with server without web page refreshed completely.
2. **Free-to-use (commercially too).**
3. **Open-source:** source code of angular is available online for free of cost.
4. **Cross-platform:** Used in Web, Mobile, and Desktop.
5. **Cross-browser compatible:** Works in all the browsers.
6. **Faster Performance**

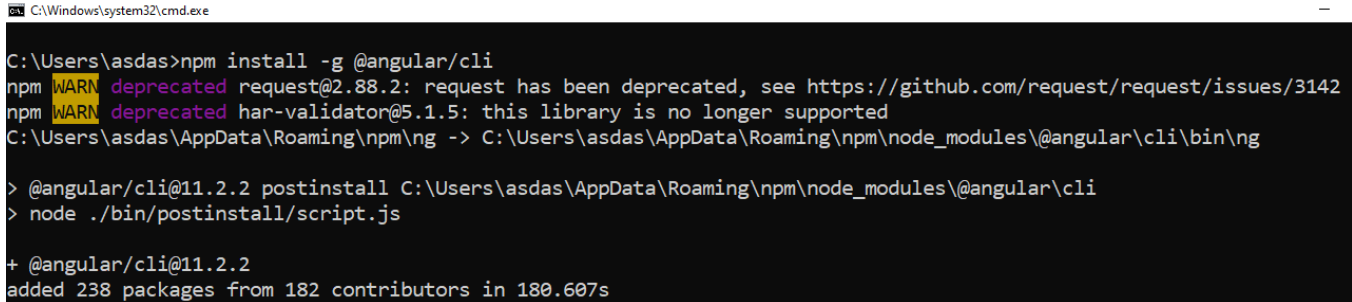
## Angular CLI (Command Line Interface)

- Angular CLI is a **Command Line tool** introduced in **Angular 4 version** that help the developers to do following activities.
  - a. To create angular applications faster and with great consistency.
  - b. To create boiler plate code for angular features like **components, directives, pipes, services**, etc.
  - c. To create boiler plate code for Typescript features like **classes, interfaces**, etc
  - d. It follows angular best practices and conventions out of the box.
  - e. Run Unit and End-to-End (e2e) tests.
  - f. To create optimized builds for deployment to production.
- We can get Angular CLI by installing **@angular/cli** package.
- To get more details about CLI go to this url.  
<https://cli.angular.io/>

## Installation of Angular CLI:

- Open the **command prompt** and run the following command:

**npm install -g @angular/cli**



```
C:\Windows\system32\cmd.exe
C:\Users\asdas>npm install -g @angular/cli
npm WARN deprecated request@2.88.2: request has been deprecated, see https://github.com/request/request/issues/3142
npm WARN deprecated har-validator@5.1.5: this library is no longer supported
C:\Users\asdas\AppData\Roaming\npm\ng -> C:\Users\asdas\AppData\Roaming\npm\node_modules\@angular\cli\bin\ng

> @angular/cli@11.2.2 postinstall C:\Users\asdas\AppData\Roaming\npm\node_modules\@angular\cli
> node ./bin/postinstall/script.js

+ @angular/cli@11.2.2
added 238 packages from 182 contributors in 180.607s
```

### Note:

If you already have Angular CLI installed, and you want to upgrade to the latest version, then execute the following command.

**npm install @angular/cli@latest -g**

### Note:

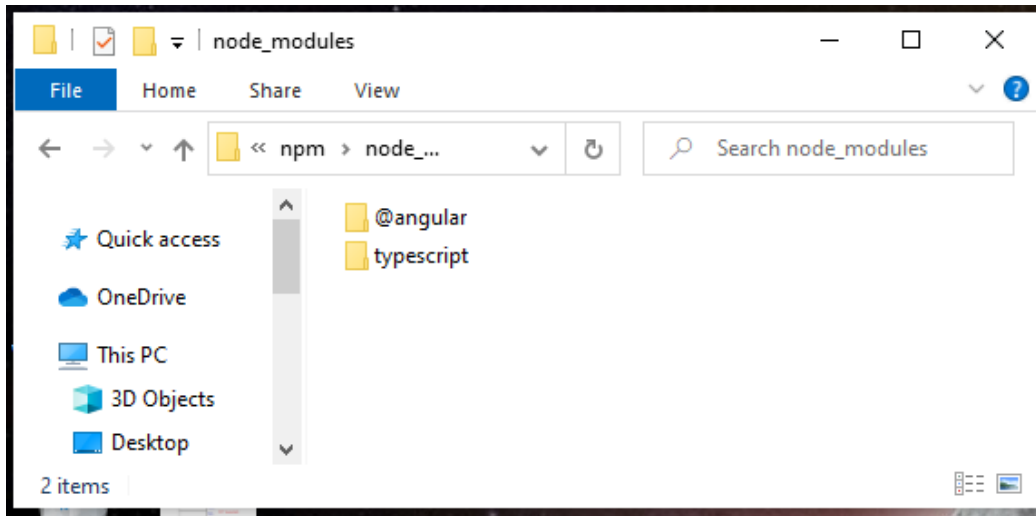
To uninstall @angular/cli packages use the following commands at CMD

**npm uninstall -g @angular/cli**

**npm cache clean --force**

- “@angular/cli” package globally will download the package of files from repository and saved in the following location in your computer.

**C:\Users\Your\_user\_name\AppData\Roaming\npm\node\_modules**



To check CLI version.

**>ng --version**

```
C:\Windows\system32\cmd.exe
C:\Users\asdas>ng --version

Angular CLI
Angular CLI: 11.2.2
Node: 14.5.0
OS: win32 x64

Angular:
...
Ivy Workspace:

Package                                Version
-----
@angular-devkit/architect              0.1102.2 (cli-only)
@angular-devkit/core                   11.2.2 (cli-only)
@angular-devkit/schematics             11.2.2 (cli-only)
@schematics/angular                   11.2.2 (cli-only)
@schematics/update                     0.1102.2 (cli-only)
```

## To know commands of ng

>ng

```
C:\Windows\system32\cmd.exe
C:\Users\asdas>ng
Available Commands:
  add Adds support for an external library to your project.
  analytics Configures the gathering of Angular CLI usage metrics. See https://angular.io/cli/usage-analytics-gathering.
  build (b) Compiles an Angular app into an output directory named dist/ at the given output path. Must be executed from within a workspace directory.
  deploy Invokes the deploy builder for a specified project or for the default project in the workspace.
  config Retrieves or sets Angular configuration values in the angular.json file for the workspace.
  doc (d) Opens the official Angular documentation (angular.io) in a browser, and searches for a given keyword.
  e2e (e) Builds and serves an Angular app, then runs end-to-end tests using Protractor.
  generate (g) Generates and/or modifies files based on a schematic.
  help Lists available commands and their short descriptions.
  lint (l) Runs linting tools on Angular app code in a given project folder.
  new (n) Creates a new workspace and an initial Angular app.
  run Runs an Architect target with an optional custom builder configuration defined in your project.
  serve (s) Builds and serves your app, rebuilding on file changes.
  test (t) Runs unit tests in a project.
  update Updates your application and its dependencies. See https://update.angular.io/
  version (v) Outputs Angular CLI version.
  xi18n (i18n-extract) Extracts i18n messages from source code.

For more detailed help run "ng [command name] --help"
```

## To get help of each command.

>ng new --help

```
C:\Windows\system32\cmd.exe
C:\Users\asdas>ng new --help
arguments:
  name
    The name of the new workspace and initial project.

options:
  --collection (-c)
    A collection of schematics to use in generating the initial app.
  --commit
    Initial git repository commit information.
  --create-application
    When true (the default), creates a new initial application project in the src folder of the new workspace. When false, creates an empty workspace with no initial app. You can then use the generate application command so that all apps are created in the projects folder.
  --defaults
    When true, disables interactive input prompts for options with a default.
  --directory
    The directory name to create the workspace in.
  --dry-run (-d)
    When true, runs through and reports activity without writing out results.
  --force (-f)
    When true, forces overwriting of existing files.
  --help
    Shows a help message for this command in the console.
  --inline-style (-s)
    When true, includes styles inline in the component TS file. By default, an external styles file is created and referenced in the component TS file.
  --inline-template (-t)
```

**Note:** To know more about Angular CLI refer this url <https://angular.io/cli>