

# Building, Testing, and Deploying with the CLI

---



**Deborah Kurata**

Consultant | Speaker | Author | MVP | GDE

@deborahkurata







# Module Overview



## Overview

**Generating a new Angular app** (`ng new`)

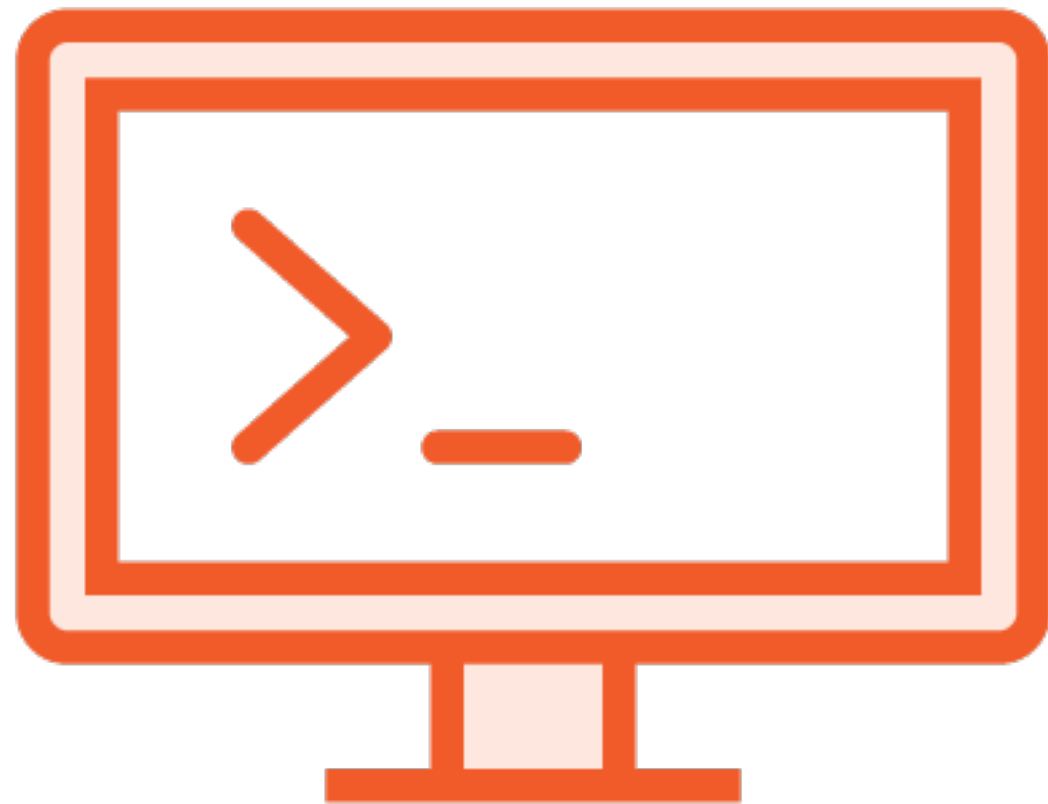
**Serving the application** (`ng serve`)

**Generating code** (`ng generate`)

**Testing the application** (`ng test`)

**Building the application** (`ng build`)

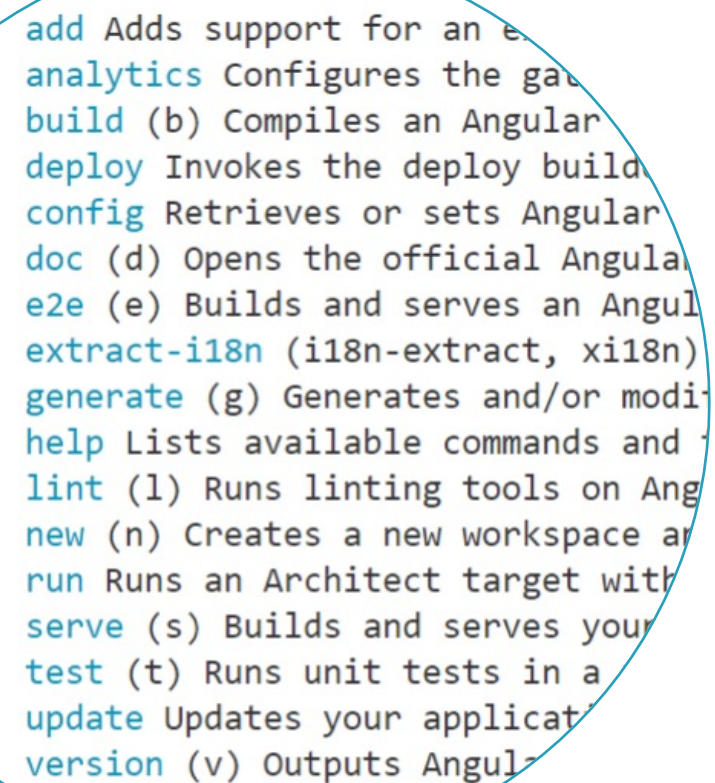
# Angular CLI Overview



**A command line interface for Angular**

**Purpose:**

- **Build an Angular application**
- **Generate Angular files**
- **Build and serve the application**
- **Run tests**
- **Prepare the application for deployment**



add Adds support for an external library  
analytics Configures the analytics service  
build (b) Compiles an Angular application  
deploy Invokes the deploy build  
config Retrieves or sets Angular configuration  
doc (d) Opens the official Angular documentation  
e2e (e) Builds and serves an Angular application for end-to-end testing  
extract-i18n (i18n-extract, xi18n) Extracts i18n data from the application  
generate (g) Generates and/or modifies application files  
help Lists available commands and their usage  
lint (l) Runs linting tools on the application  
new (n) Creates a new workspace or project  
run Runs an Architect target with its configuration  
serve (s) Builds and serves the application  
test (t) Runs unit tests in the application  
update Updates your application to the latest version  
version (v) Outputs the current Angular CLI version

# Angular CLI Command Syntax

**ng <command> <args> --<options>**

**ng new hello-world --prefix hw**

# Angular CLI

Global Angular CLI



projects/apm



projects/hello-world



projects/cms



# Installing the Angular CLI



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

# Demo

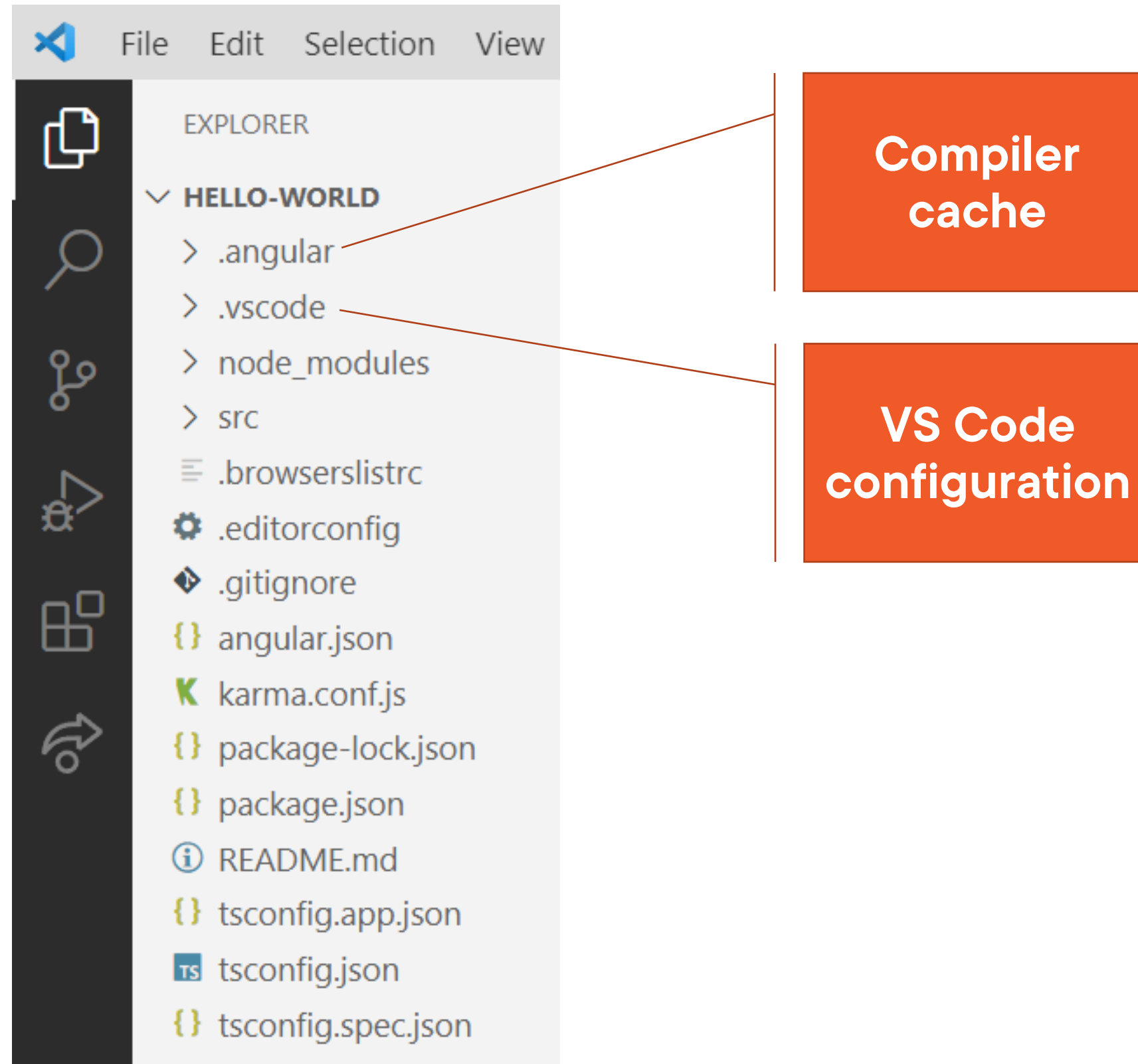


**Generate a new Angular application  
(ng new)**

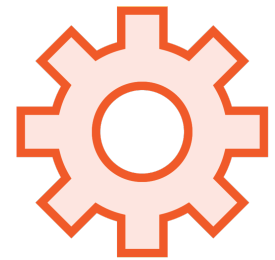
**Examine the generated files**



# Addition Folders



# Serving the Application (ng serve)



**Compiles the application**



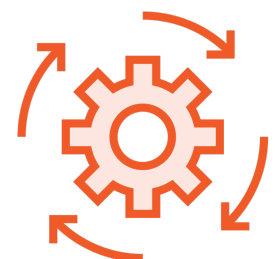
**Generates application bundles**



**Starts a local web server**

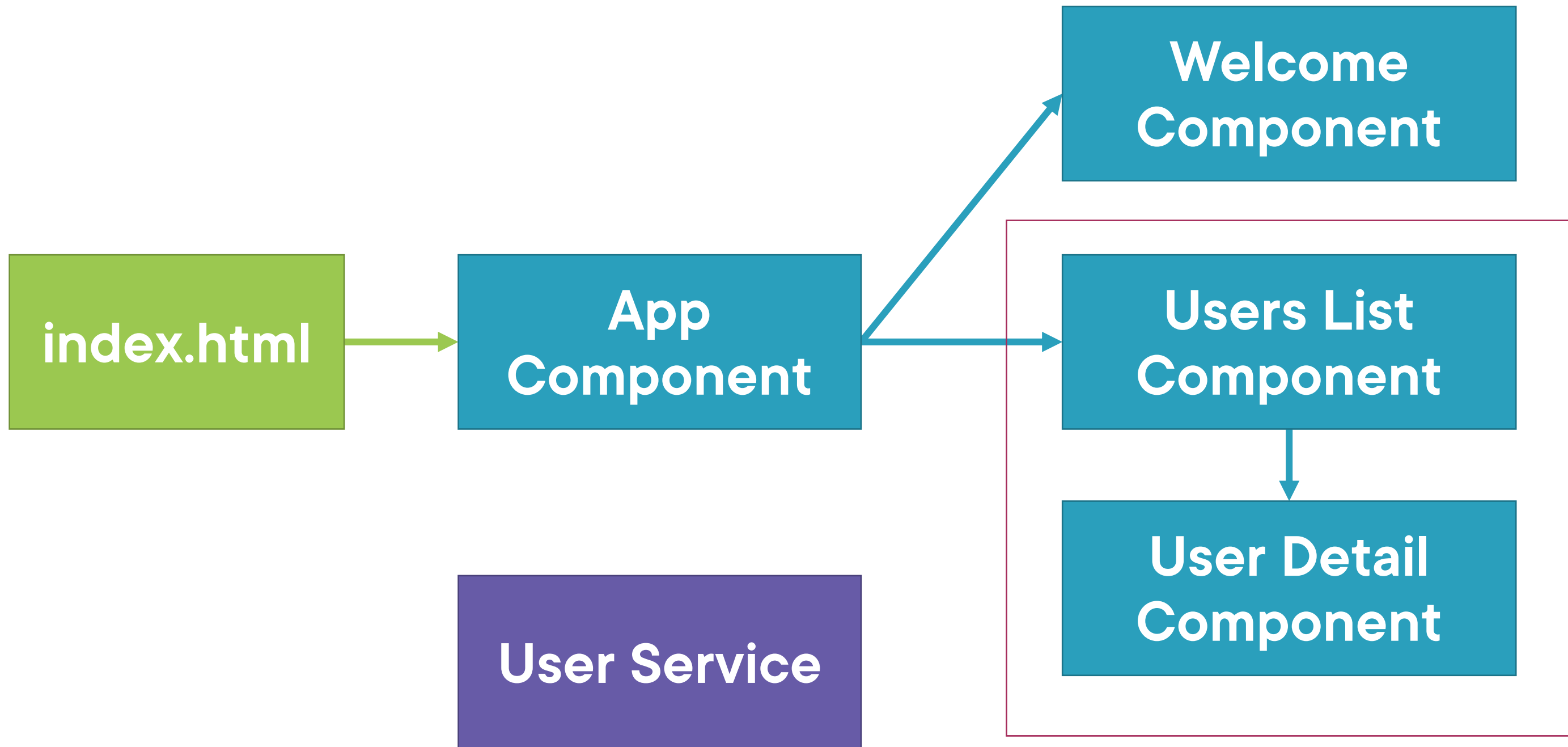


**Serves the application from memory**



**Rebuilds on file changes**

# Generating Code (ng generate)

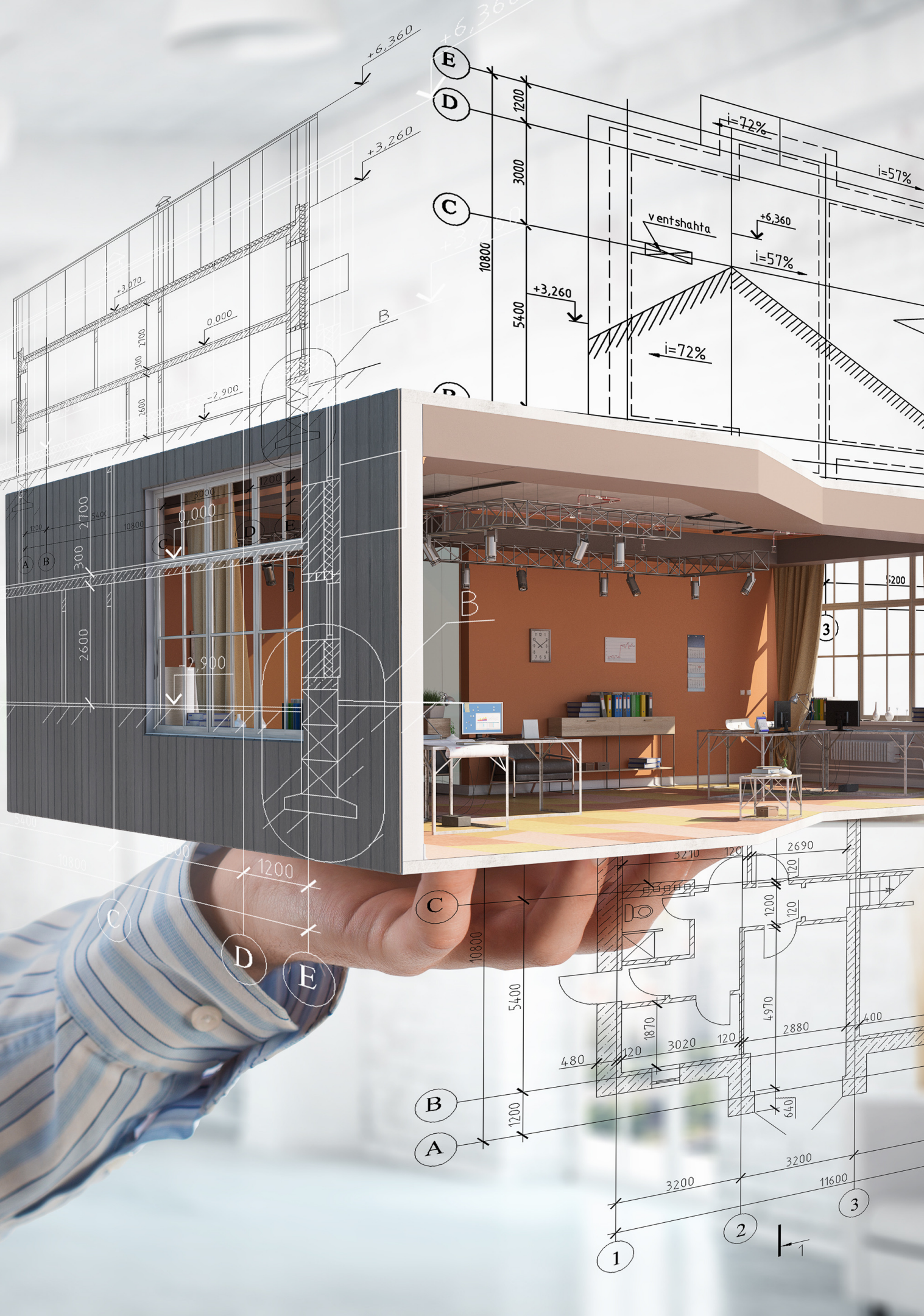


# Schematic

**A template-based code generator that supports complex logic.**

**It is a set of instructions for transforming a software project by generating or modifying code.**





**Components (ng g c <name>)**

**Directives (ng g d <name>)**

**Route guards (ng g g <name>)**

**Interfaces (ng g i <name>)**

**Modules (ng g m <name>)**

**Pipes (ng g p <name>)**

**Services (ng g s <name>)**

# Demo



## Testing the application (ng test)

# Demo



**Building the application (ng build)**

# Angular CLI Checklist: Commands



**ng help** - Displays available commands

**ng new** - Creates a new Angular application

**ng serve** - Builds the app and launches a server

**ng generate** - Generates code

**ng add** - Adds support for an external library to the app

**ng test** - Runs unit tests

**ng e2e** - Runs end-to-end tests\*

**ng build** - Compiles into an output directory

**ng deploy** - Deploys the application\*

**ng update** - Updates the Angular version for the app

\*Requires adding an external package before using the command



Angular CLI  
Checklist:  
ng generate  
Commands



class	ng g cl
component	ng g c
directive	ng g d
enum	ng g e
guard	ng g g
interface	ng g i
module	ng g m
pipe	ng g p
service	ng g s

# Learning More



**"Angular CLI"**  
**– John Papa**



Coming up next ...

**Final Words**