

Building, Testing, and Deploying with the CLI



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Module Overview



Overview

Generating a new Angular app (`ng new`)

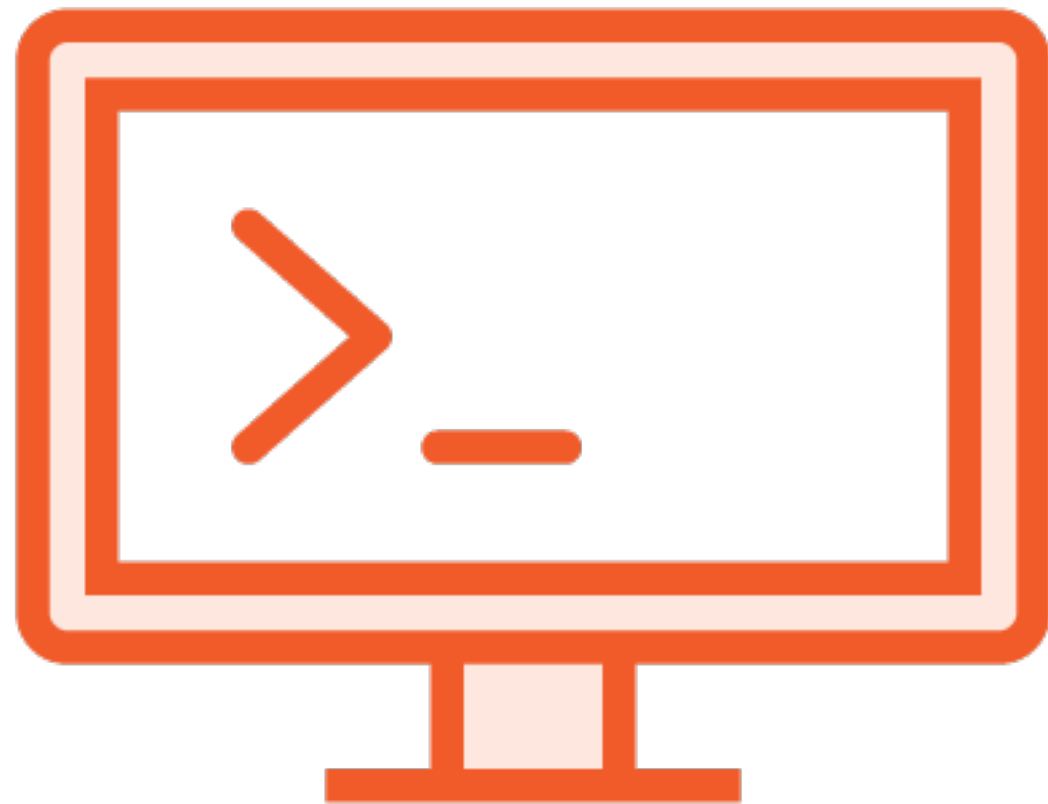
Serving the application (`ng serve`)

Generating code (`ng generate`)

Testing the application (`ng test`)

Building the application (`ng build`)

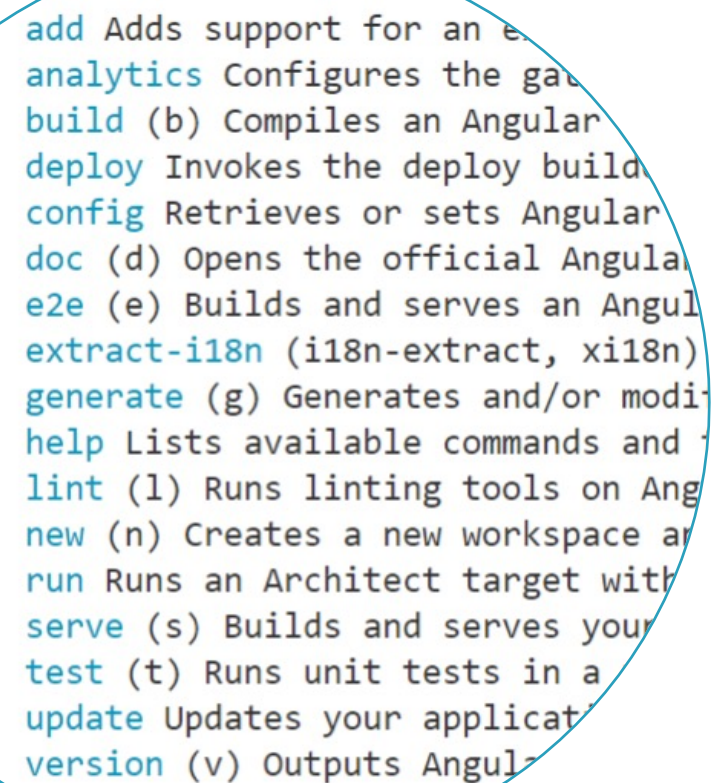
Angular CLI Overview



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 the specified 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

Local Angular CLI

projects/hello-world

Local Angular CLI

projects/cms

Local Angular CLI

Installing the Angular CLI



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

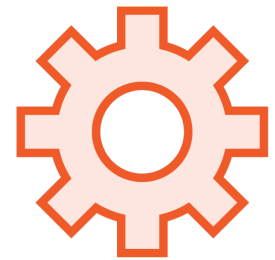
Demo



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

Examine the generated files

Serving the Application (ng serve)



Compiles the application



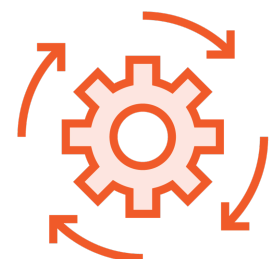
Generates application bundles



Starts a local web server

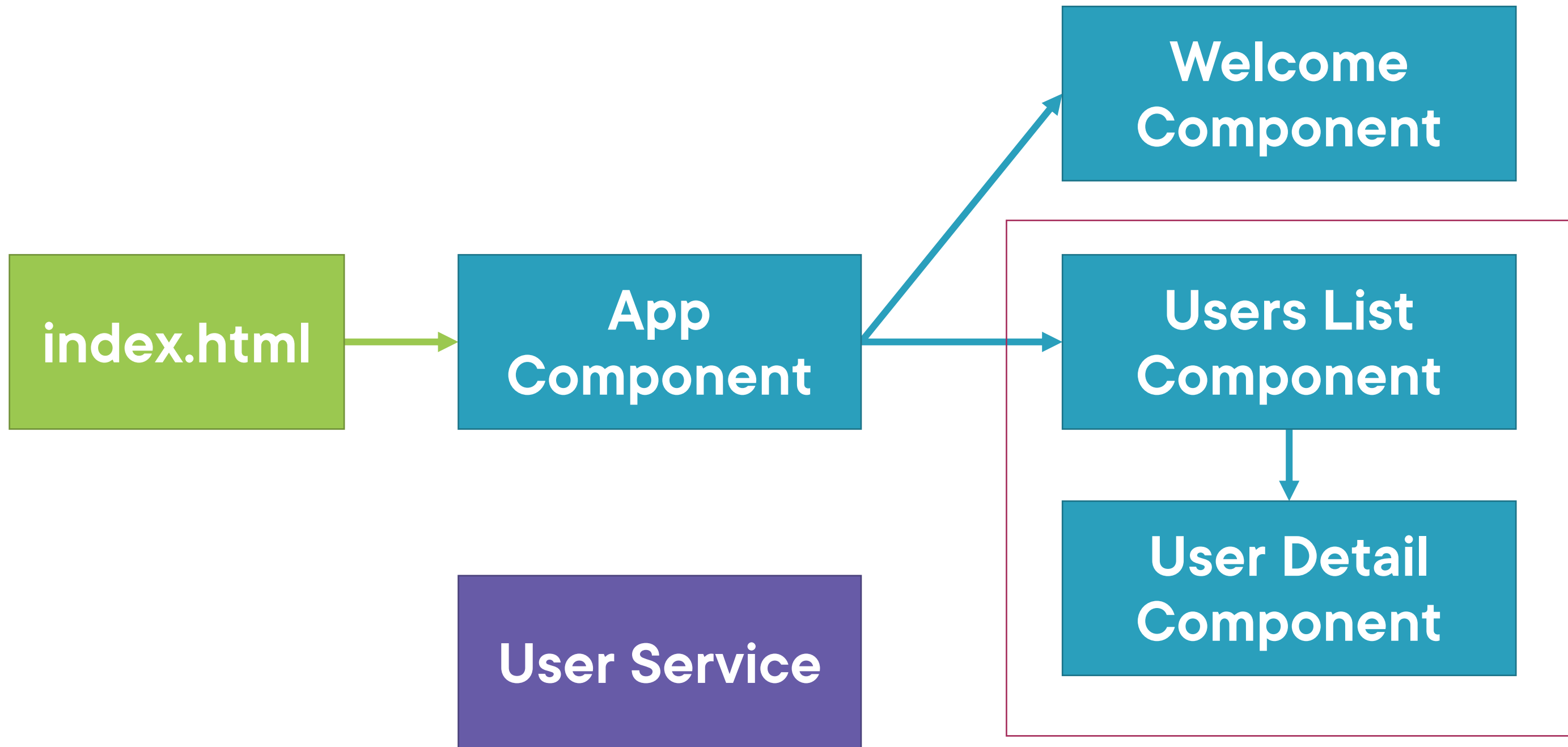


Serves the application from memory



Rebuilds on file changes

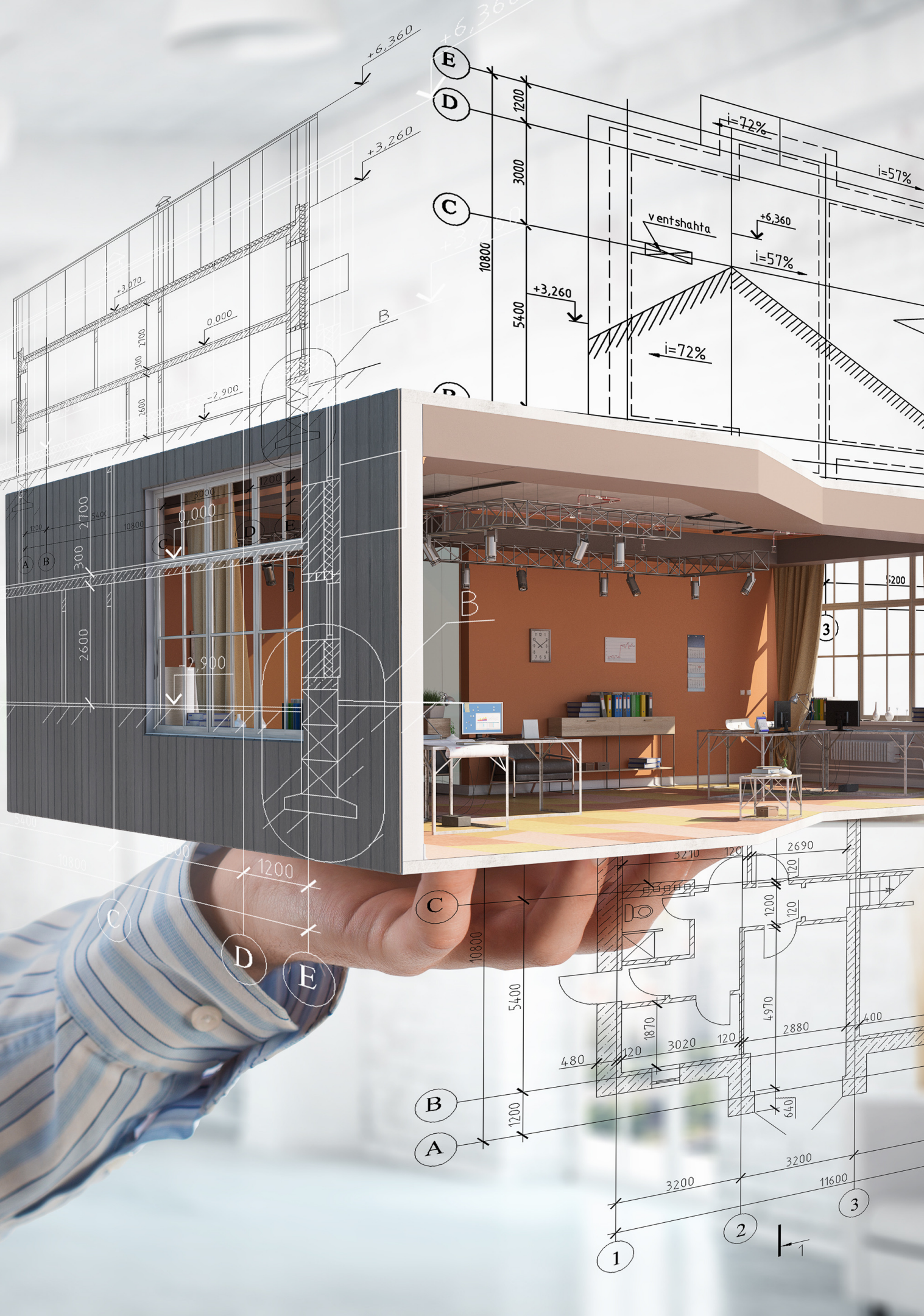
Generating Code (ng generate)



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