# Angular Guards

# Protecting Routes with Guards

**Limit access to a route**

**Restrict access to only certain users**

**Require confirmation before navigating away**

# Protecting Routes with Guards

**CanActivate**

- **Guard navigation to a route**

**CanDeactivate**

- **Guard navigation from a route**

**Resolve**

- **Pre-fetch data before activating a route**

**CanLoad**

- **Prevent asynchronous routing**

# Angular Modules

# What Is an Angular Module?

**Module**
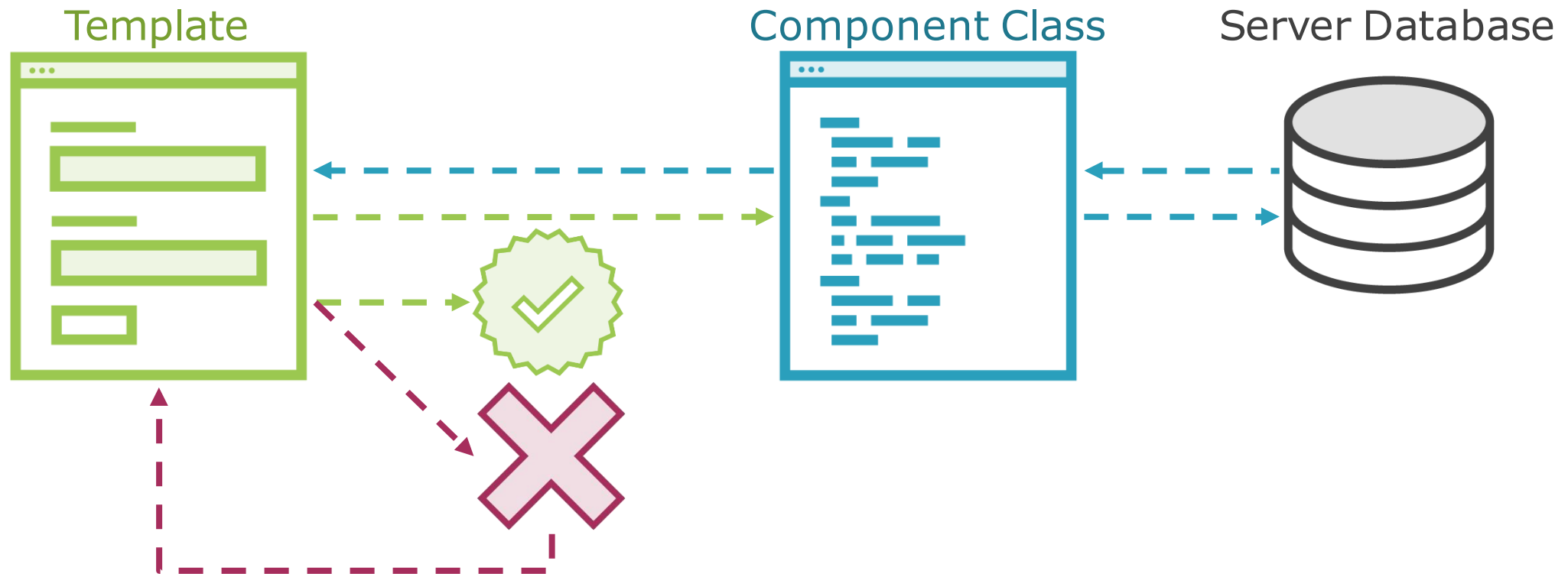
**A class with an NgModule decorator**

**Its purpose:**

- **Organize the pieces of our application**
- **Arrange them into blocks**
- **Extend our application with capabilities from external libraries**
- **Provide a template resolution environment**
- **Aggregate and re-export**
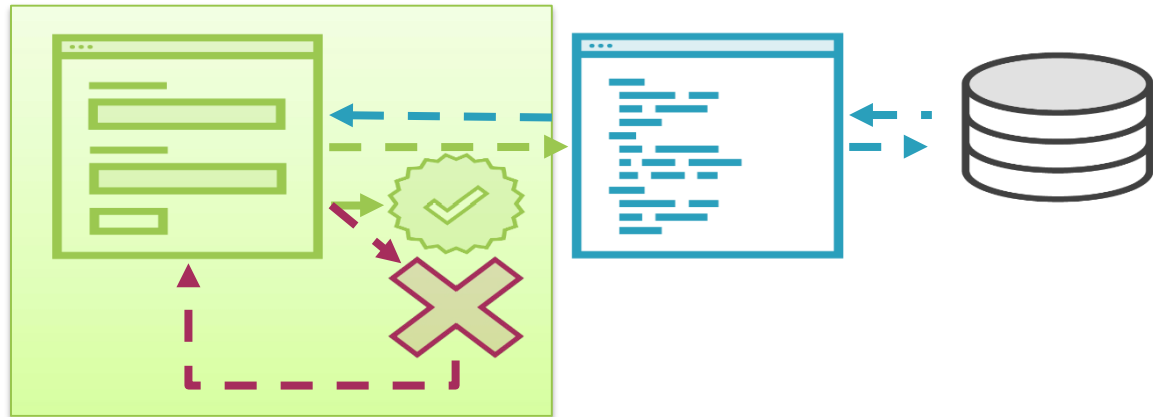
# Angular Template Driven vs. Reactive Forms
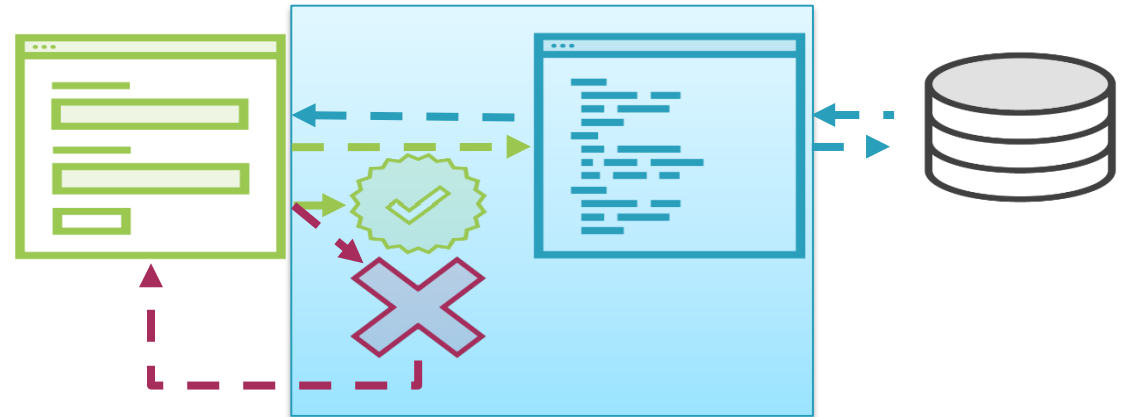
INTRODUCTION

# Angular Forms

# Angular Forms

# Angular Forms

## Template-driven

Easy to use

Similar to AngularJS

Two-way data binding ->
Minimal component code

Automatically tracks form and
input element state

## Reactive

More flexible ->
more complex scenarios

Immutable data model

Easier to perform an action
on a value change

Reactive transformations ->
DebounceTime or DistinctUntilChanged

Easily add input elements dynamically
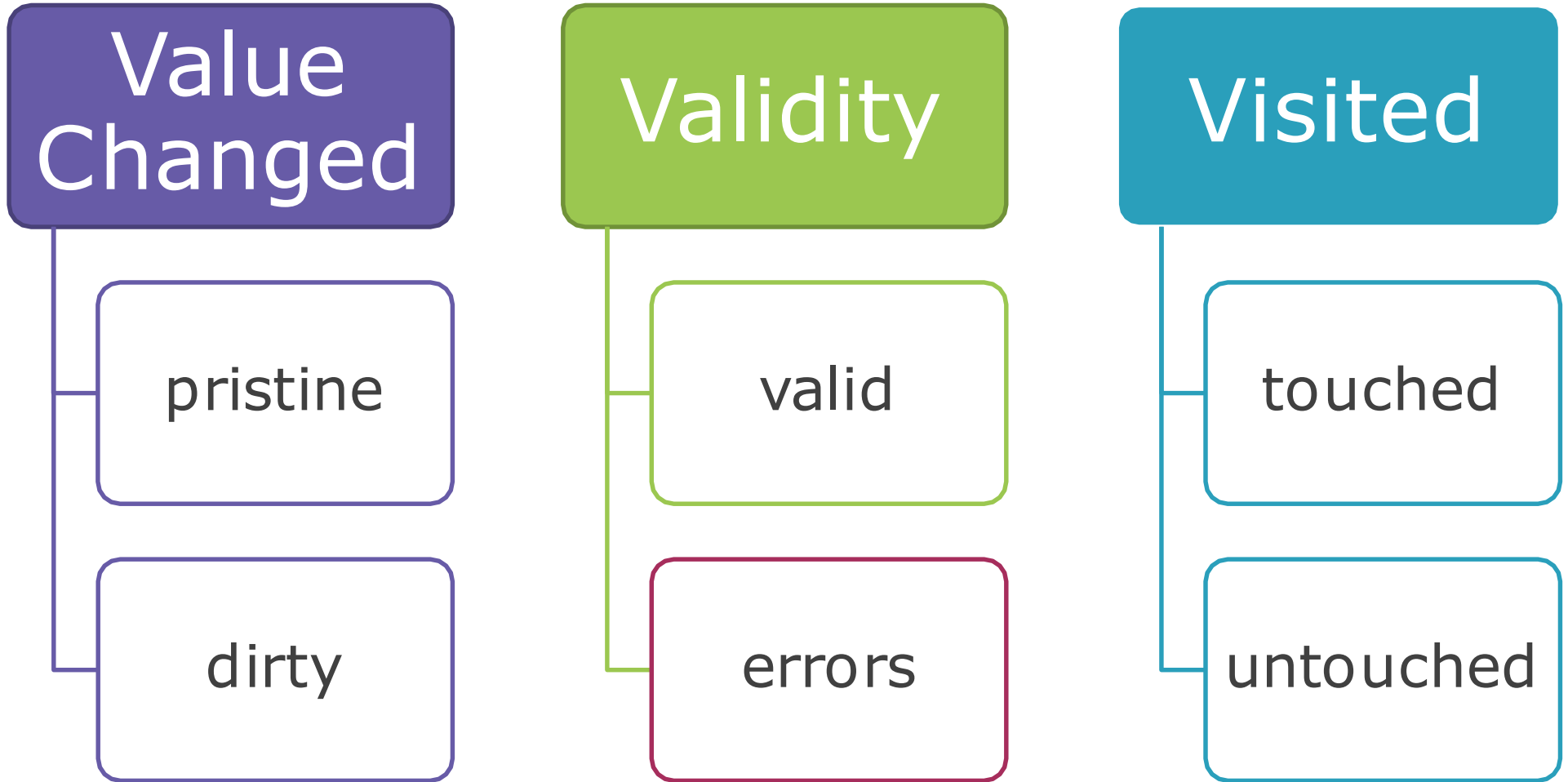
Easier unit testing

# State

| Value Changed | Validity | Visited |
|:---:|:---:|:---:|
| pristine | valid | touched |
| dirty | errors | untouched |

# Form Building Blocks

**FormControl**

**FormGroup**

```
<input id="firstNameId"
       type="text"
       placeholder="First Name"
       required
       minlength="3" />
```

```
<form (ngSubmit)="save()">
    ...
</form>
```

# Angular Forms

| Template-driven | Reactive |
| --- | --- |
| Generated form model | Manually created form model |
| HTML validation | Validation in the class |
| Two-way data binding | No two-way data binding |

# Building, Testing, and Deploying with the CLI

## 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` |

# 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

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

aot => ahead of time compilation

jit => just in time

netlify