

# Angular Reactive Forms

## Getting Started with Reactive Forms



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## Version Check



**This course was created by using:**

- Angular 16



# Version Check



**This course is 100% applicable to:**

- Angular 14+

**Mostly applicable to:**

- 8+



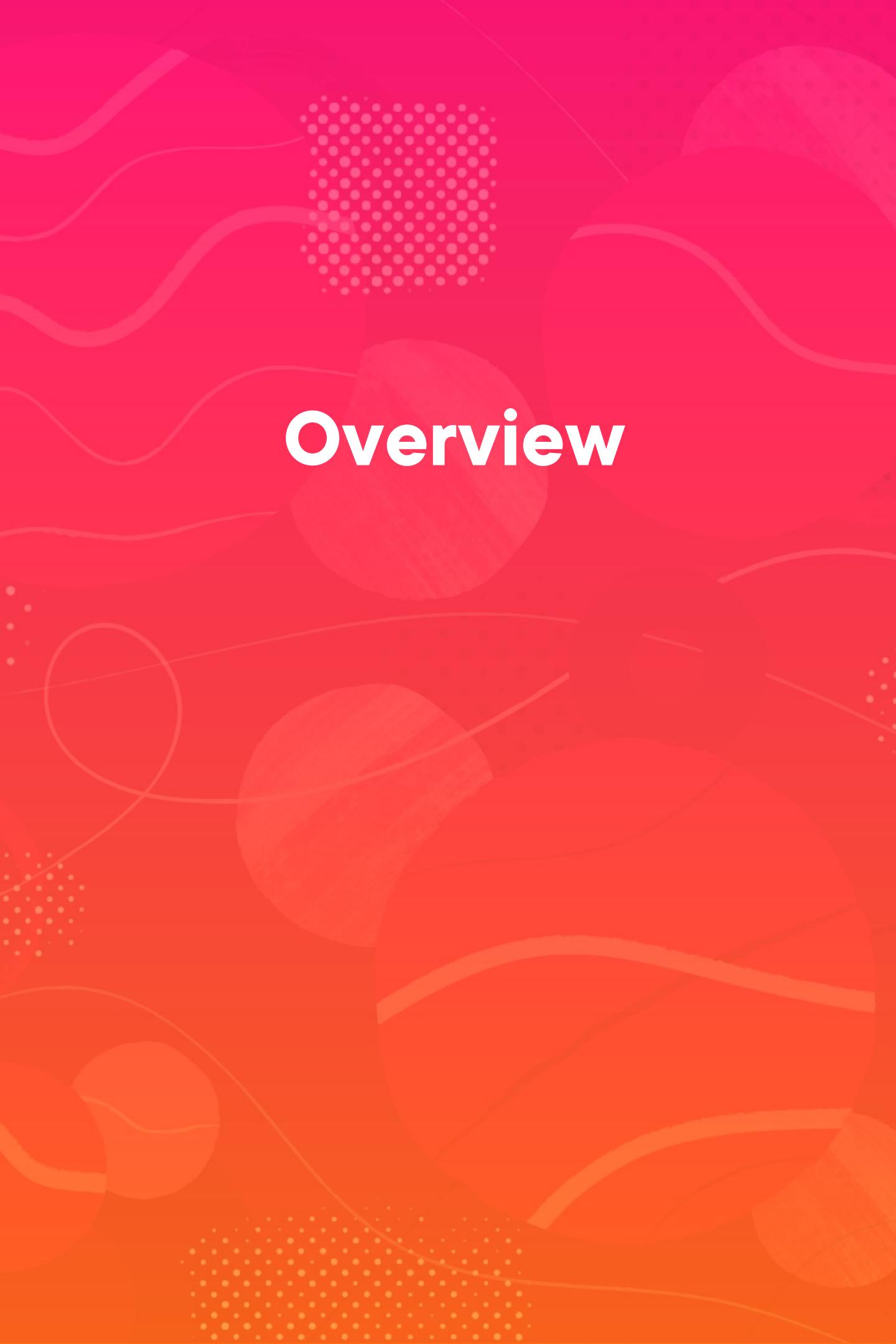
# Recommended Prerequisites

**Angular Fundamentals**

**HTML**

**JavaScript**





# Overview

- Creating Angular reactive forms
- Working with input elements and data types
- Validating reactive forms
- Creating custom ControlValueAccessors and components
- Dynamically adding form elements
- Reacting to changes



## Edit Contact

Name/Info

First Name

Last Name

Title

Phone

Phone



Mobile



Email

Email

Home    Work    Other

Address



City

State/Region

Zip/Postal Code

Home



Cancel

Save

**For each field:**  
**Input Value**



## Edit Contact

Name/Info

Jim

Cooper

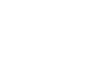
Author

Phone

888-555-1212



Mobile



Email

me@jcoop.io

Home    Work    Other

Address

123 Main St



Some City

Montana

12345

Work

Cancel

Save

**For each field:**  
**Input Value**  
**Validity**



## Edit Contact

Name/Info

First Name

First Name is Required

Cooper

Author

888-555-1212



Mobile



me@jcoop.io

Home    Work    Other

123 Main St



Some City

Montana

12345

Work



Cancel

Save

**For each field:**

- Input Value
- Validity
- Dirty
- Touched



## Edit Contact

Name/Info

First Name

First Name is Required

Last Name

Last Name is Required

Title

Title Name is Required

Phone

Phone



Phone Number is Required

Mobile



Email

Email

Email is Required

Home    Work    Other

Address

Address



Address is Required

City

State/Region

Zip/Postal Code

**For each field:**

Input Value

Validity

Dirty

Touched



## Edit Contact

Name/Info

First Name

First Name is Required

Last Name

Title

Phone



Mobile



Email

Home    Work    Other

Address



City

State/Region

Zip/Postal Code

Home



Cancel

Save

**For each field:**

Input Value

Validity

Dirty

Touched

**For the entire form:**

Input Values

Validity

Dirty

Touched



## Edit Contact

Name/Info

First Name

First Name is Required

Last Name

Title

Phone



Mobile



Email

Home    Work    Other

Address



City

State/Region

Zip/Postal Code

Home

Save

Cancel

**For each field:**

Input Value

Validity

Dirty

Touched

**For the entire form:**

Input Values

Validity

Dirty

Touched



# Angular Form Controls

## FormControl

First Name

- invalid
- valid
- dirty
- pristine
- touched
- untouched

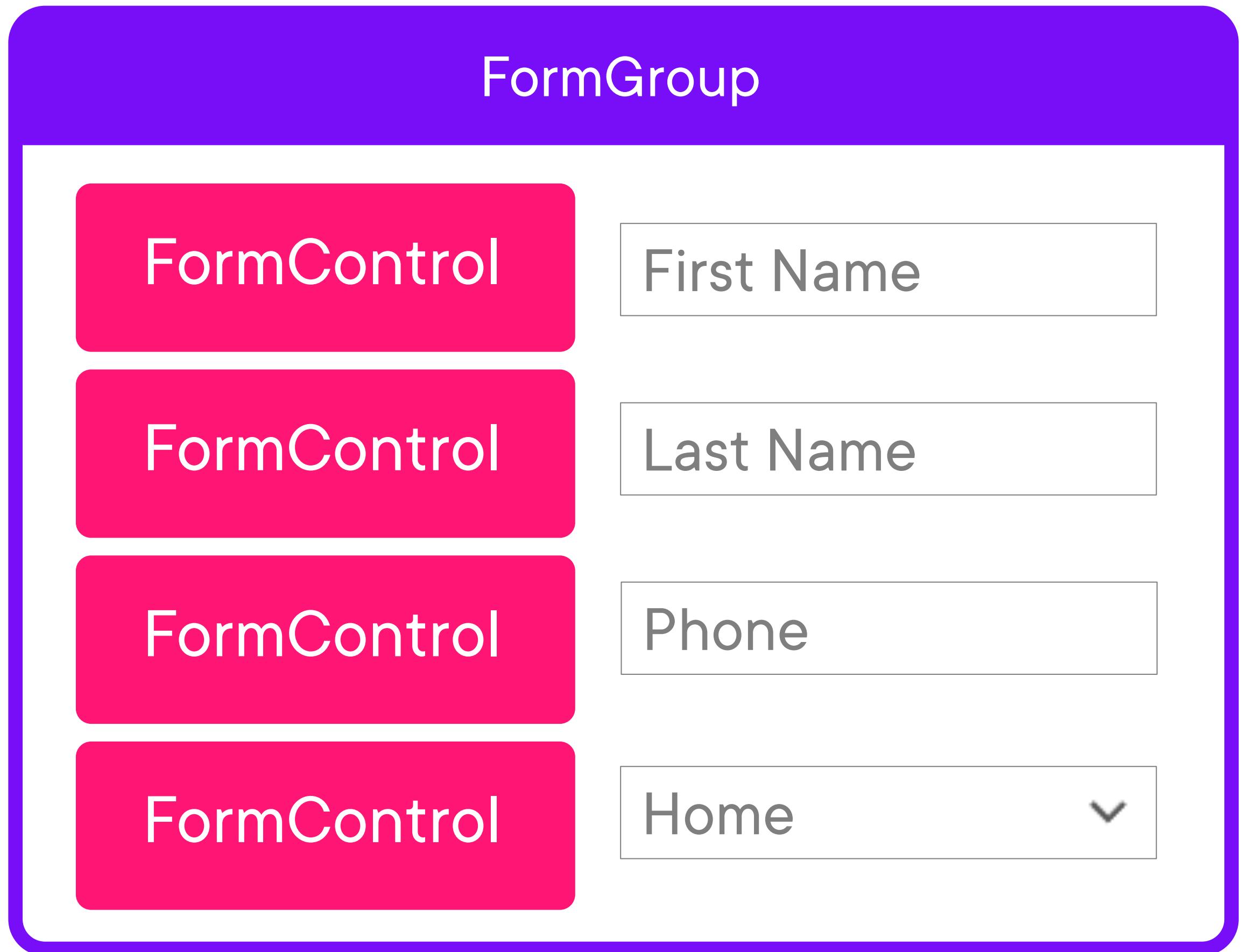
## FormGroup

First Name
Last Name
Title
Address
City
State/Region
Zip/Postal Code
Home

- invalid
- valid
- dirty
- pristine
- touched
- untouched



# Form Model



# Angular Forms Approaches

**Template-driven Forms**

**Reactive Forms**



# Angular Forms Approaches: Similarities

Template-driven Forms

and

Reactive Forms

FormControl

First Name

- invalid
- valid
- dirty
- pristine
- touched
- untouched

FormGroup

First Name
Last Name
Title
Address
City
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Zip/Postal Code
Home

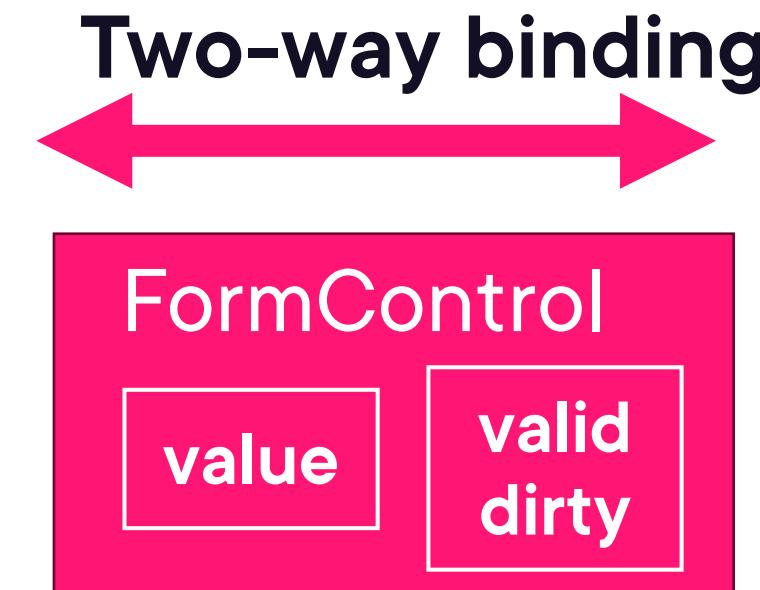
- invalid
- valid
- dirty
- pristine
- touched
- untouched



# Template-driven Forms

First Name

```
<input  
  type="text"  
  [(ngModel)]="contact.firstName"  
  #firstName=>ngModel"  
/>
```

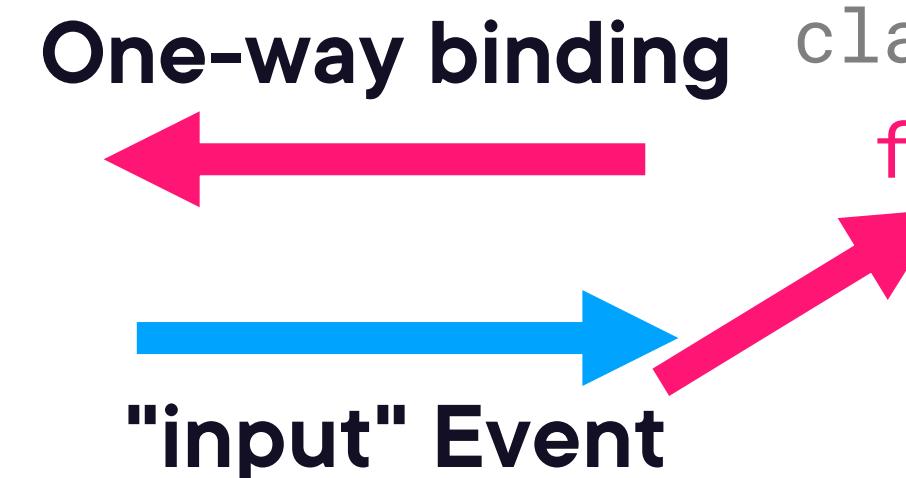


```
class MyComponent {  
  contact:Contact = {  
    firstName: ''  
    lastName: ''  
  };  
}
```

# Reactive Forms

First Name

```
<input  
  type="text"  
  [formControl]="firstName"  
/>
```



```
class MyComponent {  
  firstName = new FormControl('');  
}
```



## Template-driven Forms

vs

## Reactive Forms

**HTML template-based**

**Separate data model**

**Two-way mutable bindings**

**Synchronous data flow**

**Validation with directives**

**TypeScript/Component-based**

**Data model managed by form controls**

**One-way immutable bindings**

**Asynchronous data flow**

**Validation with functions**



**Up Next:**

# **Creating Angular Reactive Forms**

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