

# Form Validation

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# Introduction



**HTML5 Field Validation**

**CSS Classes for Validation**

**NgModel Properties for Validation**

**Styling Forms with Validation Errors**

**Submitting Forms**

**Handling Form Control Events**



# HTML5 Field Validation

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# HTML5 Validation Attributes

**required**

**minlength**

**pattern**

**maxlength**

**min**

**max**



# CSS Classes for Validation

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# Validation Classes in Angular

**ng-untouched**  
**ng-touched**

**ng-pristine**  
**ng-dirty**

**ng-valid**  
**ng-invalid**



# NgModel Properties for Validation

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# Classes and Associated NgModel Properties

**ng-untouched**  
**ng-touched**

**ng-pristine**  
**ng-dirty**

**ng-valid**  
**ng-invalid**

**untouched**  
**touched**

**pristine**  
**dirty**

**valid**  
**invalid**





# Styling Forms with Validation Errors

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# Submitting Forms

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# Handling Form Control Events

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# Summary



## HTML5 Field Validation

- required, pattern
- minlength, maxlength, min, max

## CSS Classes for Validation

- ng-touched, ng-untouched
- ng-pristine, ng-dirty
- ng-valid, ng-invalid

## NgModel Properties for Validation

- Based on classes without “ng-”

# Summary



## Styling Forms with Validation Errors

### Submitting Forms

- (ngSubmit)="onSubmit()"
- form.submitted flag

### Handling Form Control Events

- (blur)="onBlur()"

