Pulling It All Together: Dynamic Forms

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- Directive
- Component
- @Input
- @Output
  Subscribers
- nativeElement
- Renderer2
- Content
  Projection
- Component
  Attribute Selector
- ngTemplateOutlet
- TemplateRef
- ElementRef
- ngContainer
- ngTemplate
- Async Loader UI
- Sanitize
- Custom
  Validation

Topics

- What We're Building
- Form Metadata
- Generating Field UI
- Loading & Saving Data
- Validation
- Wrap Up

What We're Building

Please complete the following form

Field One: *

This is a placeholder

Field Two:

```
This text is going to be
<b>sanitized</b>, so <a
href="javascript:alert('hello')">j
avascript</a> can't be injected,
<ul><li>but some HTML</li>
<li>still works</li></ul>
```

This text is going to be **sanitized**, so javascript can't be injected,

- but some HTML
- still works

Field Three:

Field Four:

Field Five: 333

Field Six: three

Save Cancel

Thanks for your Time!

Field Metadata

```
export abstract class FieldBase {
    abstract displayAs: FieldControlType;
    readonly internalName: string;
    defaultValue: string | number | boolean;
    displayName: string;
    required = false;
    placeholder = '';
    checkUniqueFunc: (val: string) => boolean;
    hint: (evt: HintEvent) => void;
    focus: (field: FieldBase, ctrl: AbstractControl, e
    blur: (field: FieldBase, ctrl: AbstractControl, ev
}
```

```
<div *ngFor="let oneField of fields, trackBy:fieldIdTracker">
  <field [field]="oneField" [form]="form"></field>
</div>
```

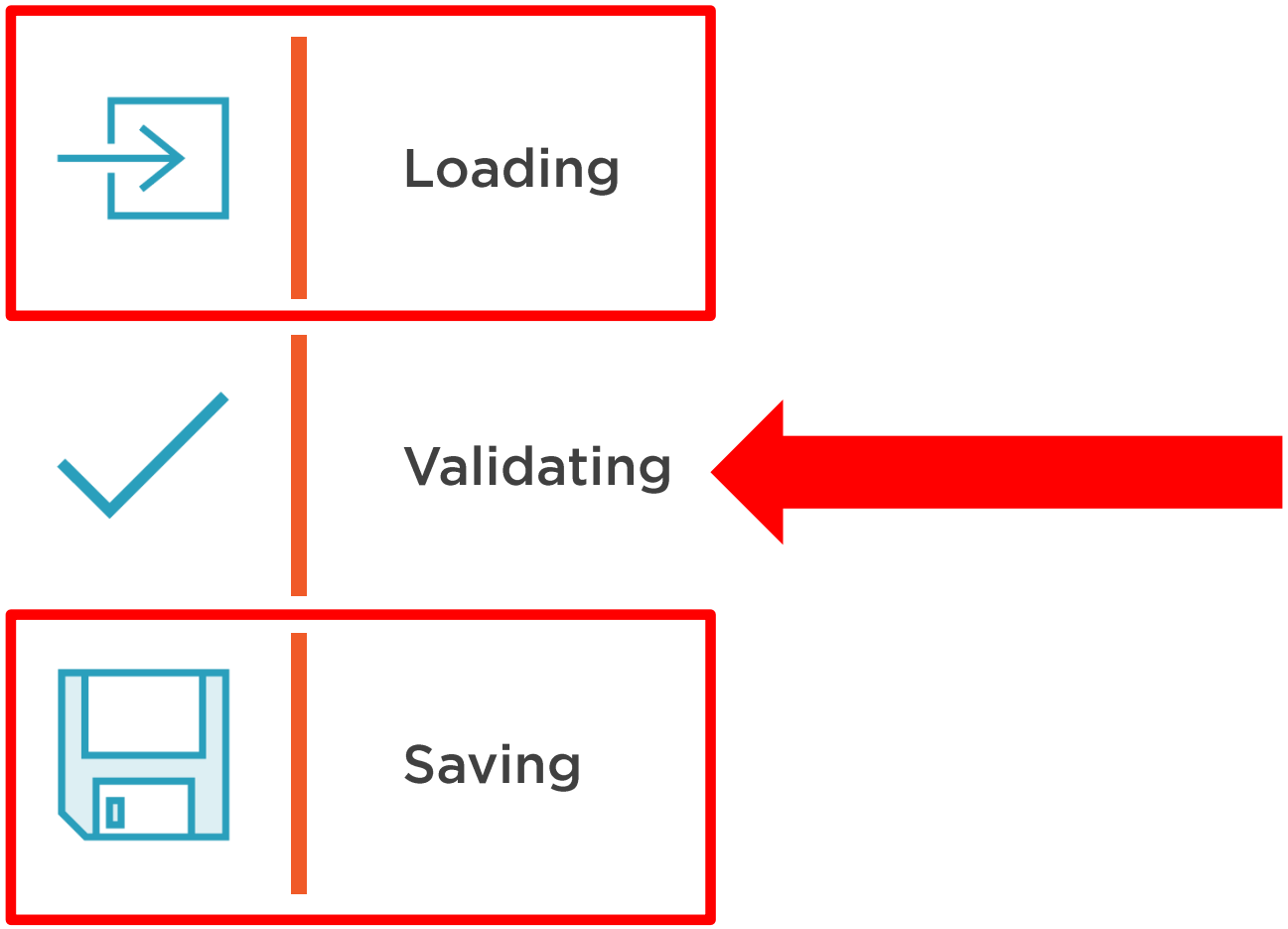
```
<div class='formField'>
  <ng-container *ngTemplateOutlet='getTemplate()'></ng-container>
</div>
```

```
<ng-template #text>
  <input #fieldElement [id]="field.internalName" type="text" [placeholder]="field.placeholder">
</ng-template>
```

Generating Field UI

- Iterate fields Collection
- Load template
- Set properties

Data Operations



Angular Validation

- Out-of-the-box
- Custom

General Types

- Exists
- Range
- Equality
- Membership
- Pattern
- Custom

Angular Validation

- Out-of-the-box
- Custom

General Types

- Exists ✓ **required**
- Range ✓ **min, max, minLength, maxLength**
- Equality ✓ **requiredTrue, pattern**
- Membership
- Pattern ✓ **pattern, email**
- Custom ✓

Key Takeaways

- Metadata to define fields
- Loading a component per field
- HTMLElement properties from metadata
- Loading & Setting data
- Validation

Next Up

DOM Cleanliness