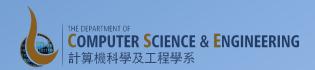
Introduction to AngularJS

Jogesh K. Muppala





AngularJS History

- Designed by Misko Hevery
- First released in June 2012
- One of the most popular front-end JS frameworks

What is Angular?

- Structural framework for dynamic web applications:
 - HTML only does static documents
 - Angular fills in the gap to support dynamic applications
 - Solving the impedance mismatch
 - Designed with CRUD applications (data-driven) in mind
 - Declarative approach

Angular Vocabulary

- Two-way Data Binding
- Scope
- Directives
- Templates
- Routing
- Testing

- Modules
- Controllers
- Filters
- Factory
- Service
- Provider

Getting Started using Angular

Include the Angular JS code

<script src="scripts/angular.min.js"></script>

Angular Built-in Directives

- HTML custom attributes:
 - data-* attributes (Bootstrap/jQuery)
 - Angular: ng-* attributes / data-ng-*
- Example: ng-app, ng-bind, ng-model, ng-init, ng-repeat etc.
 - They are also referred to using camelCase as ngApp, ngBind, ngModel, ngInit, ngRepeat etc.
 - Dash-delimited attributes are used since HTML is case insensitive
- Declarative programming in action
 - Declaratively call JavaScript functions

The ngApp Directive

- The ngApp (ng-app) directive is applied to specify the root of the application
 - Applying to <html> tag means entire page is under the control of the Angular application

The ngInit Directive

- The ngInit (ng-init) directive is used to
 - Evaluate an expression
 - Initialize a JavaScript variable
- Example:

Angular Expressions

- Simple JavaScript Expressions
 - Evaluated against an Angular scope object
 - No conditionals, loops or exceptions
 - Expressions enclosed in {{ expression }}
- Example

The ngModel Directive

- The ngModel directive binds the input value to a variable within the scope
 - Two-way data binding
- Example:

```
<div class="media-body">
...
     {{dish.description}} 
    Comment: {{dish.comment}} 
    Type your comment:
         <input type="text" ng-model="dish.comment">
</div>
```

Two-way Data Binding

- Binding an HTML or CSS property to a JavaScript variable
 - When the value of the variable is updated, the HTML/CSS property is also updated
 - Also works vice-versa with <input> fields

The ngRepeat Directive

- The ngRepeat directive is a looping construct
 - Loops over items in a collection
 - Instantiates a template for each item
- Example

```
cli class="media" ng-repeat="dish in dishes">
```

Exercise: Introduction to AngularJS

- Use Angular directives like ng-app, ng-init, ng-model and ng-repeat
- Use Angular expressions in constructing a web template