

ng-start

**Begin working with
AngularJS**
From : Vijay Shivakumar





ANGULARJS
by Google

What You Should Know...

HTML, CSS, JavaScript

OOP, MVC

SPA

jQuery or similar library (Zepto or jQLite)

Even JavaScript will do

IE9 or greater only

Current Versions of

Safari

Chrome

Firefox

Opera

Mobile Browsers

Android

Chrome Mobile

iOS Safari



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What is Angular About ?

Angular JS makes HTML suitable for web application development.

Angular JS is especially used to make SPA.

AngularJS is **declarative** and has preset ways of working

Current Technologies :

DOM Manipulation

Manage History

Routing

Ajax calls

Data Binding



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Lets solve the puzzle

What is available ?

Understand how that fits together

How to organize them

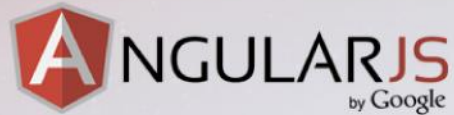


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Angular Buzzwords

Application Framework
Modular / Reusable
Pub / Sub Communication
Dependency Injection
Routing / Deep linking
Data Binding Expression

Templates
Filters
Unit Testing
Localization
Validation
Directives
jqLite



Features of Angular JS

Model View Controller architecture

A well known and proven architecture

Data Binding

Automatically synchronizes values between Model and View

Templates

Makes it very easy to update the user interface

Dependency injections

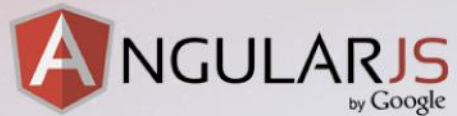
Code dependencies are automatically injected where needed

Extends HTML with directives

Lots of powerful standard directives or create your own

Build with testing in mind

Makes it much easier to unit test different parts



AngularJS Introduction

MODULE

ROUTER

UI

View

Directives

Filters

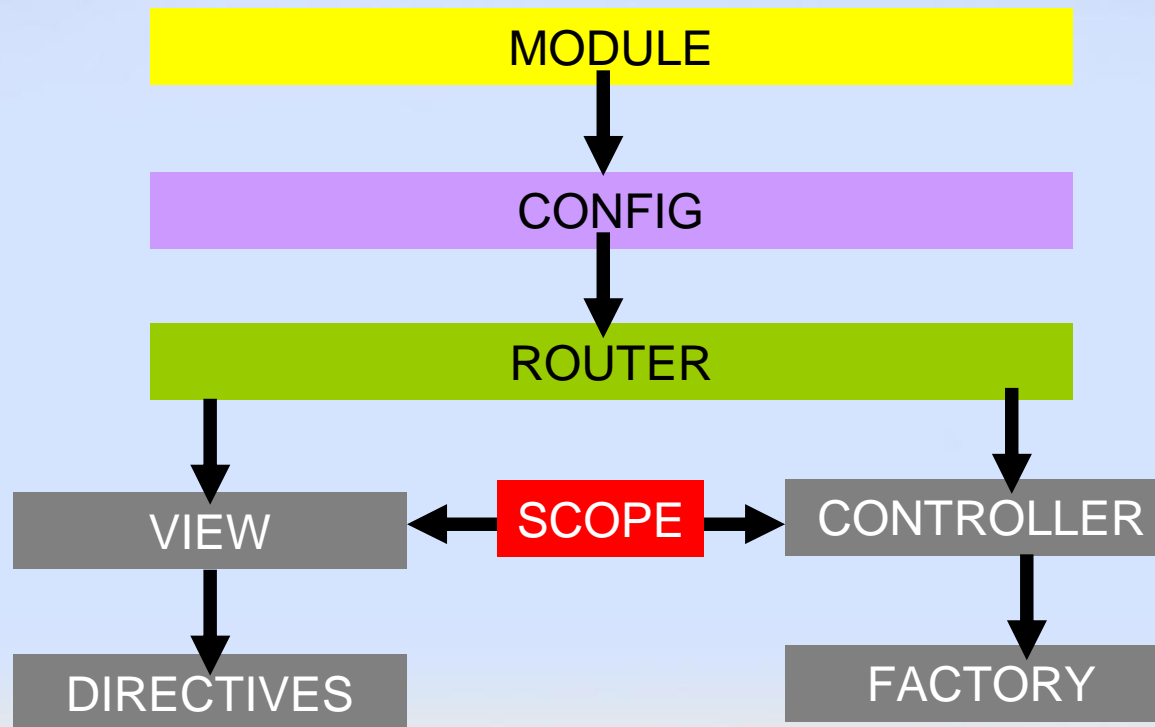
SCOPE

LOGIC / DATA

Controller

Factory

Services





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What is a Module

It's a container for
Controllers
Routers
Factories / Services
Directives
Filters



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What are Controllers

Are the Brain of your application
Gets data from a factory/service & store it
Handle events triggered by the views
Know how to handle custom logic
Interact with the view via \$scope



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What are Factories / Services

It's used to make ajax calls

Shared data between controllers

Used to handle custom logic

Singletons to ensure no duplication



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What are Directives ?

They teach HTML new tricks

DOM Manipulation

Data binding

Controller / Modules

CSS

Events

Render Views



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Few Common Directives

DOM Manipulation

ng-hide / ng-show

ng-repeat

ng-view

Modules / Controllers

ng-app

ng-controller

DATA Bind

ng-init

ng-bind

ng-model

Events

ng-click

ng-keypress

ng-mouseenter



Data binding is not a native capability of JavaScript (yet)

The model changes the data and the view is updated

The view changes the data and the model is updated

currency

orderBy

uppercase

json

filter

currency:'INR';

number:2; // decimal value

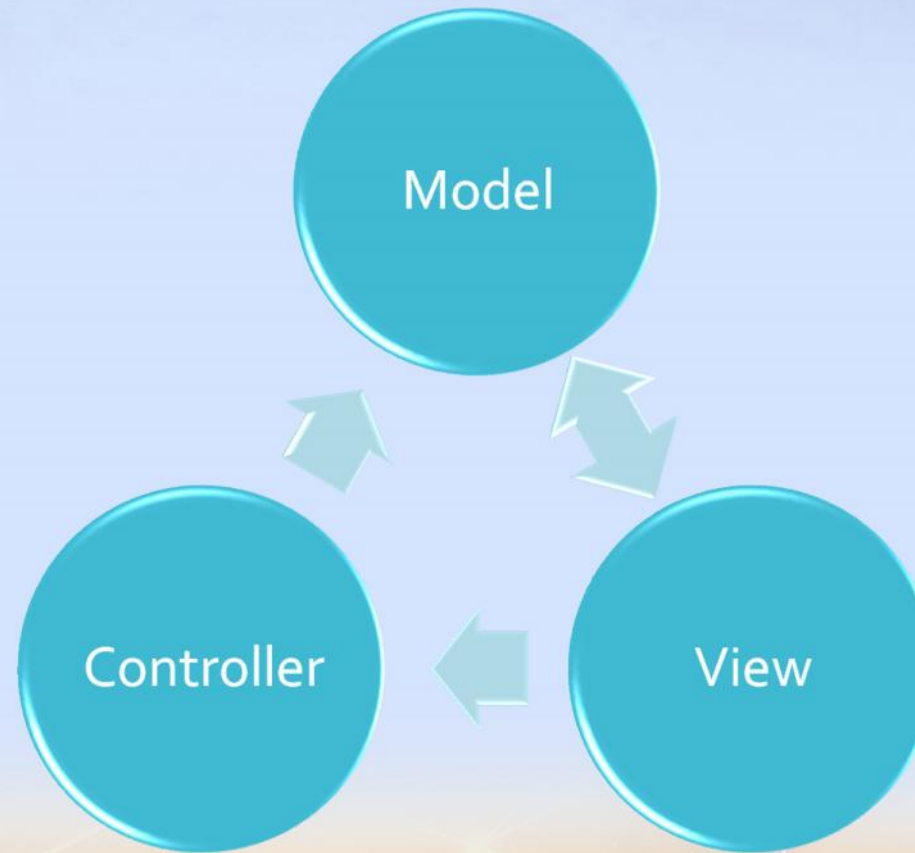
date:'yyyy mm dd', small, ;

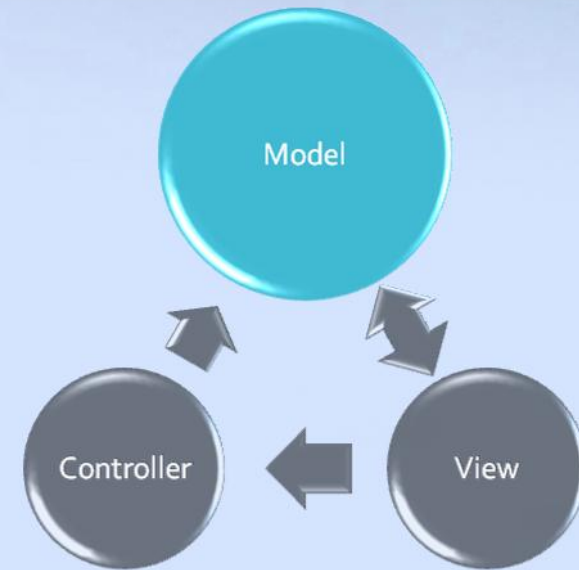
number

date

lowercase

limitTo





The business data

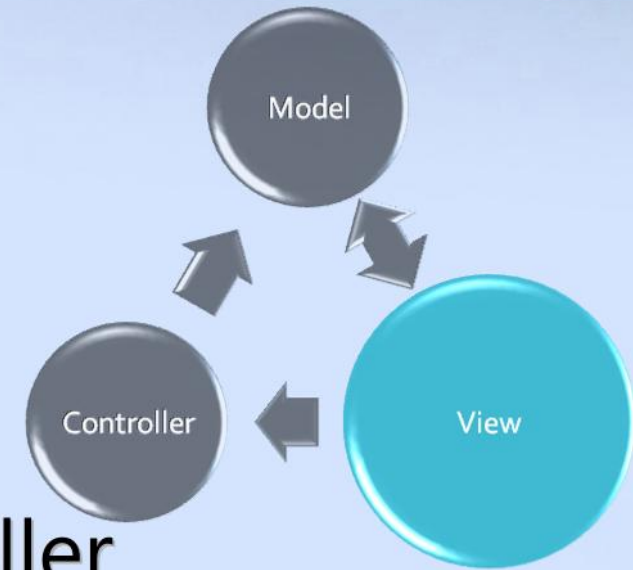
Exposed to the view through the \$scope

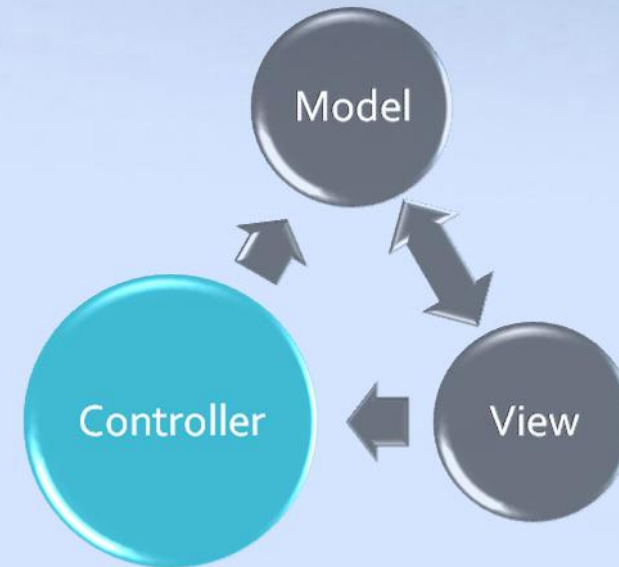


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The View

The user interface layer
Data binds to the model
Calls functions on the controller
Use declarative directives for reusable code





Glues the view and the model together

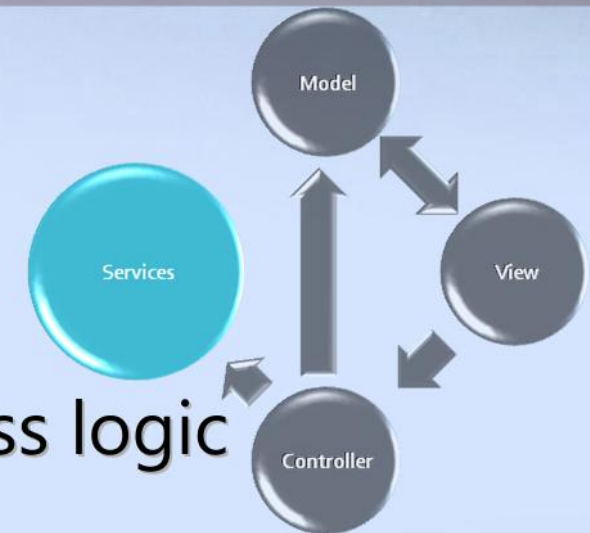
Provides additional functionality

Uses additional services for reusable logic



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The Services



Services are reusable pieces of business logic

Separation results in reuse and testability

Created as singleton objects

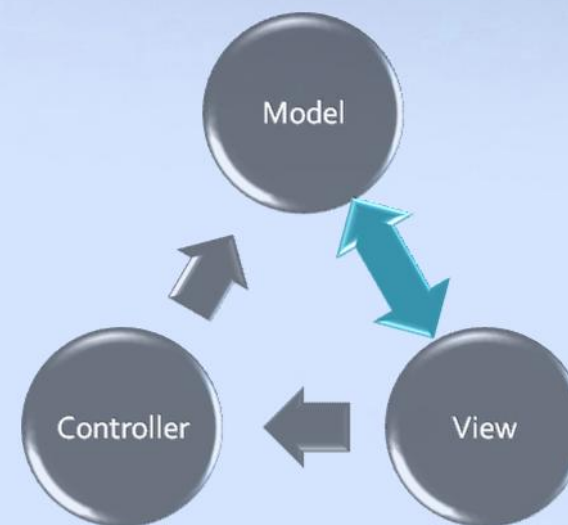
Inject by AngularJS using dependency injection

Services are created as part of a module

One module can take a dependency on another module

Modules are groupings of related functionality

Also used to bootstrap the application



\$scope ?

The glue between the Model and View

.

Lets get started with





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In the beginning.

Lets bootstrap angularJS to the application

The **ng-app** directive tells Angular which part of your main template it needs to watch.

It 'wakes up' Angular.

You can (should) define a specific Angular module to serve as the core app logic:
`ng-app='myModule'`.

You can also bootstrap manually, if you need to.



What are directives ?

According to AngularJS

directives teach HTML new tricks.

Adds additional capabilities to html tag

can be for existing attributes, styles or a custom attribute

Supports new behaviour for existing tags

Eg,. You can create tabs or charts out of divs etc..

Each directive is different and params change as per directive.



You can use them as tags

```
<ng-form> </ng-form>
```

```
<ng:form> </ng:form>
```

You can use them as an attribute of a tag

```
<div ng-form> </div>
```

You can use them as classes

```
<div class="ng-form"> </div>
```

Each directive has a specific way to be declared...

ngApp

Wakes up Angular JS

ngBind

Binds a variable to view

ngHTML

Binds sanitized HTML to view (comes from the sanitize library)

ngBindTemplate

Binds more than one value to view ({{val1}} {{val2}})

ngBindHTMLUnsafe

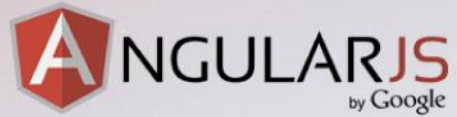
Binds unsanitized HTML to view (comes from the sanitize library)

List of Common Event Directives

ngKeyDown
ngKeyPress
ngKeyUp
ngMouseDown
ngMouseenter
ngMouseleave
ngMouseMove
ngMouseover
ngMouseup
ngBlur
ngChange
ngChecked
ngClick
ngDbclick

```
<button ng-click="clickFun"> Click Me </button>
```

```
<input type="checkbox"  
      ng-change="changeFun"  
      ng-model="count"      />
```

List of few common directives

ngShow
ngHide

currency

date

JSON

limitTo

lowercase

uppercase

filter

number

orderBy



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