AngularJS

**AngularJS** is a structural framework for dynamic web apps. It lets you use HTML as your template language and lets you extend HTML's syntax to express your application's components clearly and succinctly. Angular's data binding and dependency injection eliminate much of the code you currently have to write.

**Advantages of AngularJS:**

1. MVC done right

2. A declarative user interface.

3. Data models are POJO

4. Behavior with directives

5. Flexibility with filters

6. Write less code

7. DOM manipulations where they belong

8. Data Binding

9. Off Line applications.

10. Single page Applications.

**Areas In which AngularJS Using:**

1. Youtube Leanback
2. Smooth scrolling
3. video playback
4. handling touch events, splitting up the UI into various segments
5. **plunker**

Plunker allows users to create small, mini applications on the web, and see them update and run as you type. Furthermore, you can collaborate with people, and share your Plunks.

6. Games

7. Many Off line applications

**Disadvantages of AngularJS**

1. Deep learning curve

**Example for AngularJS:**

<!DOCTYPE html>

<html>

<body>

<div data-ng-app="" data-ng-init="quantity=1;price=5">

<h2>Cost Calculator</h2>

Quantity: <input type="number" ng-model="quantity">

Price: <input type="number" ng-model="price">

<p><b>Total in dollar:</b> {{quantity \* price}}</p>

</div>

<script src="//ajax.googleapis.com/ajax/libs/angularjs/1.2.15/angular.min.js"></script>

</body>

</html>

# $http

The $http service is a function which takes a single argument — a configuration object — that is used to generate an HTTP request and returns a [promise](https://docs.angularjs.org/api/ng/service/$q) with two $http specific methods: success and error

$http({method: 'GET', url: '/someUrl'}).

success(function(data, status, headers, config) {

// this callback will be called asynchronously

// when the response is available

}).

.

error(function(data, status, headers, config) {

// called asynchronously if an error occurs

// or server returns response with an error status.

});

## Killer Features

* Two Way Data binding
* Dependency Injection
* Directives

## Killer Features

#### Two Way Data Binding

* Tradtionally when the model changes, the developer is responsible for updating DOM.
* And when the DOM is changed, we need to update the model to reflect the changes.
* AngularJS handles synchronization between the DOM and model automatically.

[Cool Example Link](http://localhost:3000/#/introduction/databind)

## Killer Features

#### Dependency Injection

* DI is used to control dependencies within AngularJS
* Used primarily in controllers
* We inject the services we require into our controllers
* Fixes issues with minification

## Killer Features

#### Directives

* A function which executes when AngularJS discovers them in the DOM.
* Can perform pretty much anything.
* ng-repeat is an example of an AngularJS directive.
* Named with a custom prefix (app-, myapp-, etc.)
* Applied as Element, Attribute, Class or Comment

## Killer Features

#### Directives Cont.

* The most powerful feature of Directives is extending HTML.
* Act as reusable components
* Use case example: Search box
* If you think of HTML, we have tags such as

tr, table, br, img, a

How would you describe what these do? That's what a directive is.