Declarative Programming – A programming paradigm in which you build program’s logic without describing its control flow (tell it what to do, instead of how to do it)

Third party Angular plugins for Twitter Bootstrap, Google Maps, Facebook

Angular makes it easy to organize your web application by giving it structure through a clear way to implement features

Servers: JavaScript Express, Python Django, Ruby Rails

Angular can be run on browser without anything from server (Client Side Application Framework, Backbone and Ember work in similar ways), so the only thing that needs to be passed back and forth is data (AJAX and JSON).

Bootstrap to tell Angular to run app in template, using ng-app=<module name>

Angular makes single page web apps

1. Templates (Views) – Contains directives
2. Directives – Extends HTML templates with tags and attributes
3. Controllers – Logic to manipulate UI. What data should be displayed on button click, what elements should be displayed (like glue of application)
4. Scope – Most important. Every template, directive, and controller can have their own scope. Directive and controller share a scope, a place where they can access the same data; if the changes can be seen in the directive, it can be seen by the controller, and vice versa.

$rootScope is available to all other areas of program

coolCtrl has access to mainCtrl scope and functions (only when they don’t already exist within coolCtrl scope) because it is a child of mainCtrl

Prototypical inheritance – flows one direction from parent to children

Data binding – where data and logic come together

Two-way data binding - any time a user interacts with the app, it updates the data in the scope. Any time scope is updated, the underlying data is updated

ng-model=”todo.name” name is a key within the todo object. ng-model=”todo.completed” creates another key “completed” to todo object. ‘todo.name’ = ‘$scope.todo.name’.

ng-repeat creates a new scope for each element in array

ng-blur triggers when we click outside of its element (loses focus)

ng-class=”{‘editing-item’: editing}” key is the class we want to apply when editing is true

Services use dependency injection. Multiple controllers can use the same service to make code available to multiple parts of the app, and share data between different controllers. Can communicate with REST APIs and contain data about a logged in user. A service’s methods can be invoked by controllers, directives, or other services.

Within ng-repeat, each todo has a variable called $index. HTTP GET returns a promise, a way to manage data requested asynchronously in JavaScript.

Common pattern to have controllers, directives, and services in their own folders.

ng-repeat has orderBy filter, ng-repeat="todo in todos | orderBy: 'completed' : true", true is a reverse flag.

The Array's filter method returns a subset of the array based on logic in the callback.