



# Architecture of an Angular JS application

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# Sales Map for a real-estate company

The screenshot shows a real estate search application with a sidebar on the left and a map on the right.

**Toolbar:** Includes icons for Home, Search, and Lists.

**Fairways Valley:** 38 Units - From R1 650 000 to R2 850 000

**La Vie Nouvelle:** 318 Units - From R600 000 to R1 200 000

**Park Ridge:** 245 Units - From R1 800 000 to R18 000 000

**River View:** 37 Units - From R2 250 000 to R45 000 000

**The Views:** 102 Units - From R1 560 000 to R2 750 000

**The Village:** 43 Units - From R2 200 000 to R7 800 000

**Waterfall Country Estate:** 933 Units - From R2 100 000 to R10 300 000

**Waterfall Country Village:** 784 Units - From R1 800 000 to R6 000 000

**Waterfall Equestrian Estate:** 119 Units - From R8 000 000 to R60 000 000

**Waterfall Hills:** 278 Units - From R1 800 000 to R6 000 000

**Waterfall Valley:** 85 Units - From R2 700 000 to R7 000 000

**Main Panel:** Shows a detailed map of the Waterfall Valley area, highlighting neighborhoods like The Fields, The Meadows, River View, Park Ridge, The Woods, The Village, and La Vie Nouvelles. Roads labeled include 10th Rd, 9th Rd, 8th Rd, 7th Rd, Spencer Ave, Warden Cr, CHARTWELL, R552, R552, 4th Rd, 3rd Rd, Romney Ave, 3rd St, Cedar Rd, Syringa Ave, KENGIES, BROADACRES AH, Richard Rd, Candler Rd, Pine Rd, Gateside Ave, DAINFERN, DAINFERN VALLEY, DAINFERN RIDGE, and Jukkelei Rivier. A red arrow points from the sidebar to the map area.

**Google Map:** A button in the bottom right corner of the map panel.

**Map/Satellite:** Buttons in the bottom right corner of the map panel.

# Sales Map : Development details

Steyn City

STEYNCITY

Explore Development Enquire

DESCRIPTION

Steyn City, along the Jukskei River, is rising out of the rubble of an unused quarry and 2 000 acres of previously undeveloped land.

On completion it will comprise residential, commercial, retail and leisure components, an 18-hole Nicklaus Design championship golf course, all set within 1 000 acres of woodland.

Selected development

GALLERY

SUB-DEVELOPMENTS

Fairways Valley

Map Satellite

# Sales Map: Sub-development details

Park Ridge

Ground

PARK RIDGE

Price Range R1 800 000 - R18 000 000

Explore Development Enquire

DESCRIPTION

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh.

Ut wisi enim ad minim veniam, quis nostrud exercit ation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat.

SEND ENQUIRY

Title

First Name

Last Name

Email

Mobile Phone

Age Range

Source of Funds

Legend

- Sold
- Available
- Reserved

Selectable units

Unit Price PR-69 R

Detailed information

Enquire Favourite

14

15

9

16

17

18

Palazzo Stein

Club House

Stand PR-237

Stand PR-235

Seven St

Zeven St

enbourne Cir

Map Satellite

# Sales Map project

- URL: <http://www.salesmap.co.za/>
- Back-end: Java EE, Tomcat, MySql
  - Restful web service with Jersey & Jackson
- Front-end: Angular JS, jQuery, GMaps API
  - HTML5 / CSS3
- Data is loaded with AJAX calls to the J2EE restful back-end, getting JSON formatted data

# Sales Map project - Architecture

- Map and toolbar are “static”
- Left panel is fully dynamic
- We have a “single page application” with 7 different subpages
- A MainController is in charge of the application navigation

# Sales Map project - index.html

```
36
37 </head>
38<body>
39
40<section id="contain" ng-controller="mainController">
41    <nav>
42        <a href="#/search" title="Search" class="show-panel"><i class="fa fa-search fa-2x"></i></a>
43        <a href="#" title="Listings" class="show-panel"><i class="fa fa-list-ul fa-2x"></i></a>
44        <a href="javascript:void(0);;" class="show-panel" scroll-to="enquire" ng-show="(property
45 navbar <a href="javascript:void(0);;" id="button-toggle" title="Toggle info pane" ng-click="resi
46
47     </nav>
48
49<section id="main" >
50
51    <section id="content" ng-controller="mapController">
52        <select ng-if="(storeys.length > 1) && (map.zoom >= development.propertiesZoom)" ng-
53        <div id="map_canvas" class="map"></div>
54    </section><!-- End Map Content -->
55
56<aside ng-view>
57
58</aside>
59
60     <div class="clearer">&nbsp;</div>
61 </section><!-- END: Main -->
62 </section><!-- END: Contain -->
63
```

Left navbar

GMap

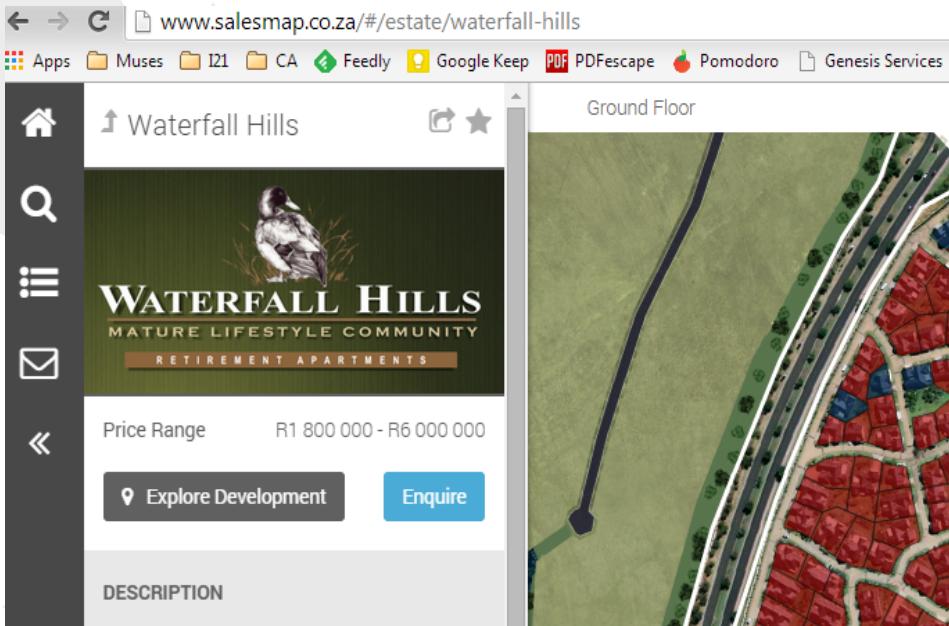
Main panel (7 possible controllers & pages)

# Sales Map project - MainController

```
1 var ismApp = angular.module('ismApp', ['ngRoute', 'ngScrollTo', 'ngSanitize']);
2
3 ismApp.config(function($routeProvider, $locationProvider) {
4     $routeProvider
5         .when('/', {templateUrl : 'listings.html', controller : 'listingsController'})
6         .when('/estate/:developmentCode/gallery', { templateUrl : 'gallery.html', controller : 'galleryController'})
7         .when('/estate/:developmentCode/tour', { templateUrl : 'tour.html', controller : 'tourController'})
8         .when('/estate/:developmentCode/component/:componentLabel', { templateUrl : 'component.html', controller : 'componentController'})
9         .when('/estate/:developmentCode/unit/:propertyLabel', { templateUrl : 'property.html', controller : 'propertyController'})
10        .when('/estate/:developmentCode', { templateUrl : 'development.html', controller : 'developmentController'})
11        .when('/search', { templateUrl : 'search.html', controller : 'searchController'});
12 });
13
14 ismApp.controller('mainController', function($scope, $rootScope, $http, $timeout, $routeParams, $q) {
15
16     $rootScope.init = function(){
17         $rootScope.devOnly = false;
18     }
19 })
```

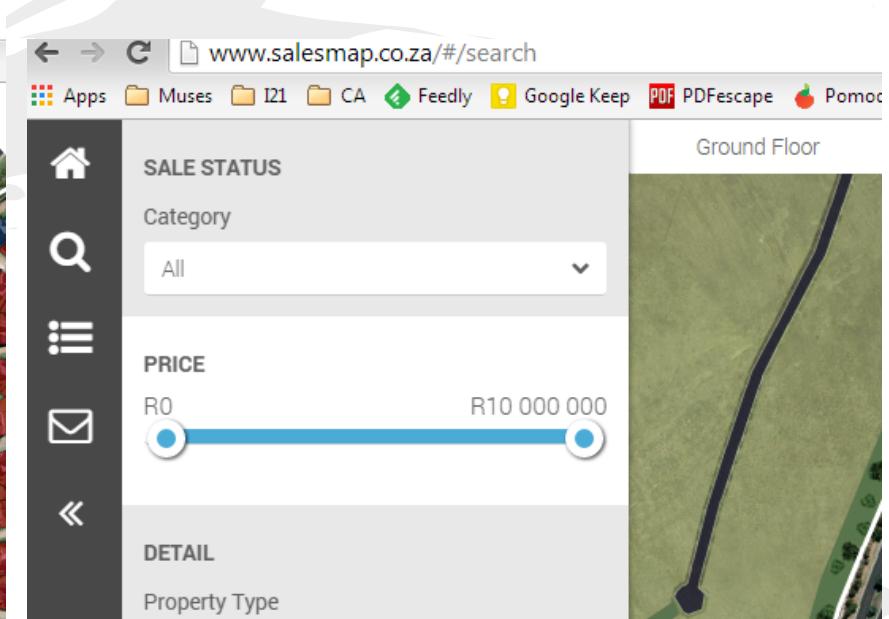
- Website URLs are matched to a specific HTML template and Angular JS controller

# Sales Map project - Examples of URLs



A screenshot of a web browser showing the Waterfall Hills estate page. The URL in the address bar is [www.salesmap.co.za/#/estate/waterfall-hills](http://www.salesmap.co.za/#/estate/waterfall-hills). The page features a sidebar with icons for Home, Search, Filter, Email, and Back. The main content area displays the Waterfall Hills logo, which includes a bird illustration and the text "WATERFALL HILLS MATURE LIFESTYLE COMMUNITY RETIREMENT APARTMENTS". Below the logo, it says "Price Range R1 800 000 - R6 000 000". There are two buttons: "Explore Development" and "Enquire". A large map shows the "Ground Floor" layout of the estate, with red and blue shaded plots and green roads. The map is titled "Ground Floor".

Estate specific URL

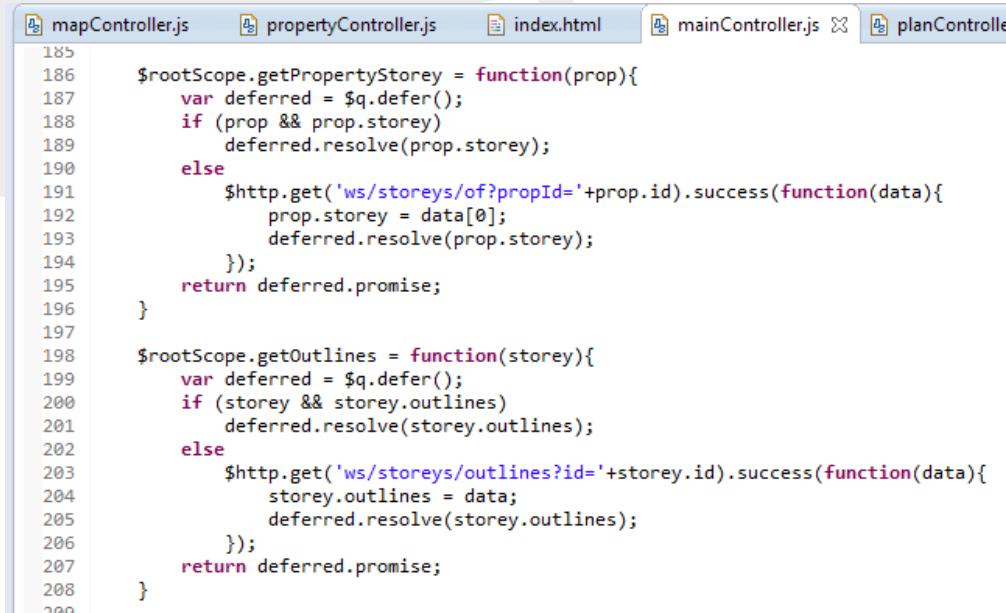


A screenshot of a web browser showing the search page of salesmap.co.za. The URL in the address bar is [www.salesmap.co.za/#/search](http://www.salesmap.co.za/#/search). The page has a sidebar with icons for Home, Search, Filter, Email, and Back. The main content area is titled "SALE STATUS" and includes a dropdown menu for "Category" set to "All". Below it is a "PRICE" section with a slider ranging from "R0" to "R10 000 000", with the slider bar currently at "R0". At the bottom is a "DETAIL" section with a dropdown menu for "Property Type". To the right of the sidebar is a map showing the "Ground Floor" layout of the estate, similar to the first screenshot.

Search page URL

# Sales Map project - MainController

- MainController is also a data service that caches data in the rootScope:



```
mapController.js propertyController.js index.html mainController.js planController

185     $rootScope.getPropertyStorey = function(prop){
186         var deferred = $q.defer();
187         if (prop && prop.storey)
188             deferred.resolve(prop.storey);
189         else
190             $http.get('ws/storeys/of?propId=' + prop.id).success(function(data){
191                 prop.storey = data[0];
192                 deferred.resolve(prop.storey);
193             });
194         return deferred.promise;
195     }
196
197     $rootScope.getOutlines = function(storey){
198         var deferred = $q.defer();
199         if (storey && storey.outlines)
200             deferred.resolve(storey.outlines);
201         else
202             $http.get('ws/storeys/outlines?id=' + storey.id).success(function(data){
203                 storey.outlines = data;
204                 deferred.resolve(storey.outlines);
205             });
206         return deferred.promise;
207     }
208
209 }
```

# Sales Map project - A page controller

```
1 ① function developmentController($scope, $http, $rootScope, $routeParams, $timeout, $q) {
2
3     $scope.initController = function() {
4         console.log('developmentController init');
5
6         $rootScope.getDevelopment($routeParams.developmentCode)
7             .then(function(dev){
8                 $rootScope.setActiveDevelopment(dev);
9                 $rootScope.title = dev.label;
10                $q.all([
11                    $rootScope.getDevelopmentData(dev, 'agents', 'agent'),
12                    $rootScope.getDevelopmentData(dev, 'galleries', 'galleries'),
13                    $rootScope.getDevelopmentData(dev, 'poi/hasPois', 'hasTour'),
14                    $rootScope.getDevelopmentData(dev, 'components', 'components')
15                ]).then(function(){
16                    $timeout(function() {
17                        console.log('dev data loaded - timeout');
18                        switchColorsTo($rootScope.development.primaryColour);
19                        scrollToEnquirySectionIfNeeded();
20                    });
21                    console.log('dev data loaded');
22                    logEvent($http, DEVELOPMENT, DATA_LOADED, $rootScope.development.id);
23                });
24            });
25        }
26
27        $scope.exploreDevelopment = function() {
28            console.log('exploreDevelopment');
29            logEvent($http, DEVELOPMENT, EXPLORE, $rootScope.development.id);
30            if (window.mobilecheck()){


```

# Sales Map project - Map controller

```
mapController.js ✘ propertyController.js ✘ index.html ✘ mainController.js ✘ planController.js ✘ scrollC
 87     $rootScope.$watch('developmentCode', function(newValue, oldValue) {
 88         console.log('watch: developmentCode (' + oldValue + ' -> ' + newValue + ')');
 89         if ($rootScope.development) {
 90             $scope.infoWindow.close();
 91             $timeout(function() {
 92                 if ($rootScope.mustFitDevBounds) {
 93                     var bounds = getDevelopmentBounds($rootScope.development);
 94                     $rootScope.map.setCenter(bounds.getCenter());
 95                     $rootScope.map.setZoom($rootScope.development.initialZoom);
 96                 }
 97                 $scope.loadShapePolygons();
 98                 $scope.loadStoreys();
 99                 $scope.loadComponentPolygons();
100                 $scope.loadSaleStatusColors();
101             });
102         }
103     });
104
105     $rootScope.$watch('developments', function(newValue, oldValue){
106         console.log('watch: developments');
107         if ($rootScope.developments && $rootScope.developments.length) {
108             $scope.infoWindow.close();
109             $scope.loadDevelopmentsPolygons();
110             $scope.loadMaxZoom();
111             if ($rootScope.development && $rootScope.development.children){
112                 var bounds = getDevelopmentBounds($rootScope.development);
113                 $rootScope.map.setCenter(bounds.getCenter());
114                 $rootScope.map.setZoom($rootScope.development.initialZoom);
115             } else {
116                 $rootScope.map.fitBounds($rootScope.allDevBounds);
117             }
118         }
119     });
120 });
121
122 }
```

# Sales Map project - Smaller controllers

- FavoritesController: Favorites management with cookies



```
mapController.js propertyController.js index.html mainController.js favoritesController.js
1 function favoritesController($rootScope, $scope, $http) {
2
3     $cookie.json = true;
4
5     $scope.toggleFavorite = function() {
6         if ($scope.isFavorite())
7             $scope.removeFavorite();
8         else
9             $scope.addFavorite();
10    }
11
12    $scope.addFavorite = function(){
13        if ($rootScope.property){
14            $rootScope.$emit('developmentFAVORITED', $rootScope.property.id);
15        }
16    }
17
18    $scope.removeFavorite = function(){
19        if ($rootScope.property){
20            $rootScope.$emit('developmentFAVORITE_REMOVED', $rootScope.property.id);
21        }
22    }
23}
```

- EnquiryFormController: Dynamic form that depends on the selected development or property

A screenshot of a web form titled "SEND ENQUIRY". The form contains four input fields: "Title" (dropdown menu), "First Name", "Last Name", and "Email".

```
mapController.js propertyController.js index.html mainController.js favoritesController.js enquiryFormController.js
1 function enquiryFormController($scope, $http, $rootScope, $routeParams, $timeout) {
2
3     $scope.data = {};
4
5     $scope.initController = function() {
6         console.log('enquiryFormController init');
7         $rootScope.getDevelopment($routeParams.developmentCode)
8             .then(function(dev){
9                 if (dev.imported){
10                     $rootScope.getDevelopmentFormConfig(dev)
11                         .then(function(data){
12                             $scope.formConfig = data;
13                         });
14                 }
15             });
16
17     }
18
19     $scope.sendEnquiry = function(){
20         var propId = ($rootScope.property ? $rootScope.property.id : null);
21         if ($scope.enquiryForm.$valid){
```

# Sales Map project - Any questions?

↑ Park Ridge

Ground

PARK RIDGE

Price Range R1 800 000 - R18 000 000

Explore Development Enquire

DESCRIPTION

Lore ipsum dolor sit amet, consectetuer adipiscing elit, sed diam nonummy nibh.

Ut wisi enim ad minim veniam, quis nostrud exerci ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat.

SEND ENQUIRY

Title

First Name

Last Name

Email

Mobile Phone

Age Range

Source of Funds

Legend

- Sold
- Available
- Reservec

Selectable units

Unit Price PR-69 R

Detailed information Enquire Favourite