

# Controllers

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# Controller Basics

- Controller directive in HTML (ng-controller)
- Controller will be a function that Angular invokes
- Controller takes a \$scope parameter
- Attach model to \$scope

```
<div ng-app>  
  <div ng-controller="MainController">  
  
  </div>  
</div>
```

```
var MainController = function($scope){  
  $scope.message = "Hello!";  
};
```

# Controller Capabilities

- Multiple controllers
- Complex objects
- Nest controllers

```
var MainController = function($scope) {  
    $scope.message = "Hello, Angular!";  
};
```

```
<body ng-controller="MainController">  
    <h1>{{message}}</h1>  
</body>
```

```
<body ng-app>  
    <h1>Hello Plunker!</h1>  
  
    <div ng-controller="DateController">  
        Current time is: {{ date }}  
    </div>  
  
    <div ng-controller="QuoteController">  
        <div>Stock:{{stock.symbol}}</div>  
        <div>Price: {{ stock.price }}</div>  
  
        <div ng-controller="ChartController">  
              
        </div>  
    </div>  
</body>
```

# \$http Service

- Encapsulates HTTP communication
  - GET, POST, PUT, DELETE
- Can “ask” for \$http inside a controller
  - Just add as another parameter to controller function
- Always returns a promise
  - A promise to deliver a value in the future

```
var PersonController = function($scope, $http){  
}
```

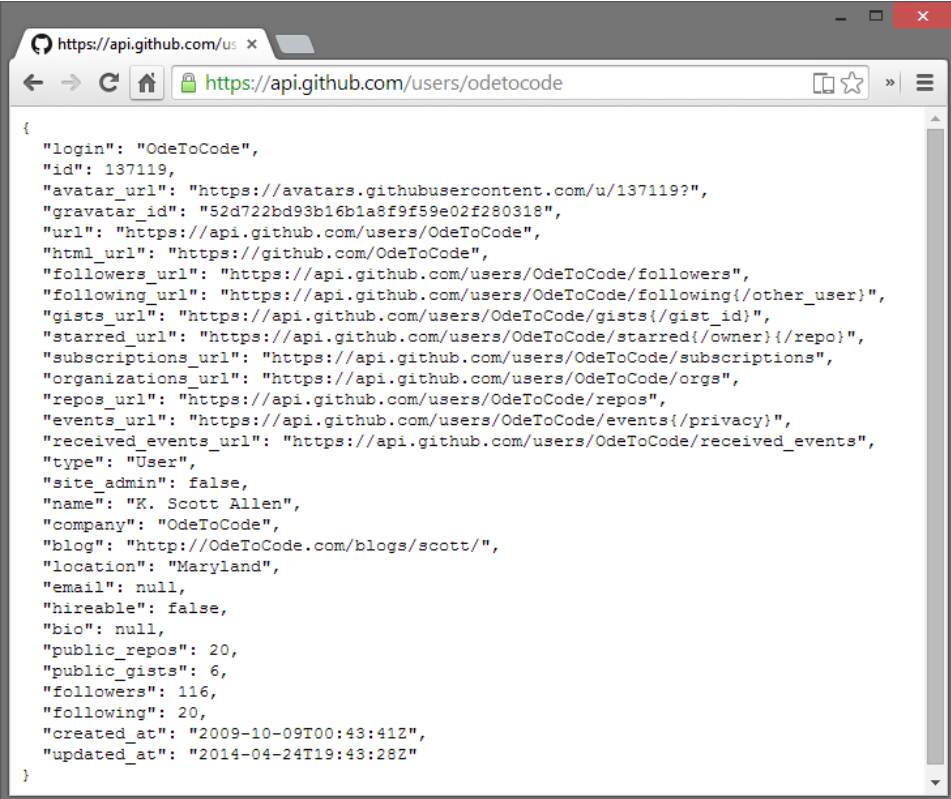
```
var PersonController = function($scope, $http) {  
    $scope.user = $http.get('/users/1783')  
};
```

```
var PersonController = function($scope, $http) {  
    var promise = $http.get('/users/1783')  
    promise.then(function(response){  
        $scope.user = response.data;  
    });  
};
```

```
var PersonController = function($scope, $http) {  
    $http.get("/users/1783")  
        .then(function(response){  
            $scope.data = response.data;  
        });  
};
```

# GitHub API

- Available from JavaScript in a browser
- Returns JSON (easy to convert into objects)
- No authentication or client key required



A screenshot of a web browser window displaying the GitHub API response for the user 'OdeToCode'. The browser's address bar shows the URL `https://api.github.com/users/odetocode`. The main content area displays a JSON object representing the user's profile information.

```
{
  "login": "OdeToCode",
  "id": 137119,
  "avatar_url": "https://avatars.githubusercontent.com/u/137119?",
  "gravatar_id": "52d722bd93b16b1a8f9f59e02f280318",
  "url": "https://api.github.com/users/OdeToCode",
  "html_url": "https://github.com/OdeToCode",
  "followers_url": "https://api.github.com/users/OdeToCode/followers",
  "following_url": "https://api.github.com/users/OdeToCode/following{/other_user}",
  "gists_url": "https://api.github.com/users/OdeToCode/gists{/gist_id}",
  "starred_url": "https://api.github.com/users/OdeToCode/starred{/owner}/{repo}",
  "subscriptions_url": "https://api.github.com/users/OdeToCode/subscriptions",
  "organizations_url": "https://api.github.com/users/OdeToCode/orgs",
  "repos_url": "https://api.github.com/users/OdeToCode/repos",
  "events_url": "https://api.github.com/users/OdeToCode/events{/privacy}",
  "received_events_url": "https://api.github.com/users/OdeToCode/received_events",
  "type": "User",
  "site_admin": false,
  "name": "K. Scott Allen",
  "company": "OdeToCode",
  "blog": "http://OdeToCode.com/blogs/scott/",
  "location": "Maryland",
  "email": null,
  "hireable": false,
  "bio": null,
  "public_repos": 20,
  "public_gists": 6,
  "followers": 116,
  "following": 20,
  "created_at": "2009-10-09T00:43:41Z",
  "updated_at": "2014-04-24T19:43:28Z"
}
```

# Modules

- **Controllers usually live in modules**
  - Avoids the global namespace
- **Working with modules**
  - Create a module with a name
  - Register your controllers in the module
  - Tell Angular to use your module with ng-app

```
var app = angular.module("githubViewer", []);
```

```
var MainController = function($scope, $http){  
  // ...  
};  
  
app.controller("MainController", MainController);
```

```
<body ng-app="githubViewer">  
  
</body>
```

# Summary

- Controllers manipulate scope
- Controllers can live in a module
- Controllers can use services like \$http

```
(function() {  
    var app = angular.module("githubViewer", []);  
    var MainController = function($scope, $http) {  
        var onUserComplete = function(response) {  
            $scope.user = response.data;  
        };  
        var onError = function(reason) {  
            $scope.error = "Could not fetch the user";  
        };  
        $http.get("https://api.github.com/users/robconery")  
            .then(onUserComplete, onError);  
        $scope.message = "Hello, Angular!";  
    };  
    app.controller("MainController", ["$scope", "$http", MainController  
})();
```