Capacitación AngularJS

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Un poco de historia… (Parte 1)

- **ECMAScript 1 (June 1997)**
  - First edition
- **ECMAScript 2 (August 1998)**
  - Editorial changes to align ECMA-262 with the standard ISO/IEC 16262
- **ECMAScript 3 (December 1999)**
  - `do-while`, regular expressions, new string methods (`concat`, `match`, `replace`,`slice`, `split` with a regular expression, etc.), exception handling, and more
- **ECMAScript 4 (abandoned July 2008)**
  - Fourth Edition was abandoned, due to political differences concerning language complexity. Many features proposed for the Fourth Edition have been completely dropped; some are proposed for ECMAScript Harmony.

Paralelamente:

1996 - the iframe tag was introduced by Internet Explorer to load or to fetch content asynchronously.

1998 - Microsoft Outlook Web App team implemented the first component XMLHTTP by client script.

1999 - Microsoft used its iframe technology to dynamically update the news stories and stock quotes on the default page for Internet Explorer.

February 2005 - The term "Ajax" was publicly stated

April 2006 - the World Wide Web Consortium (W3C) released the first draft specification for the XMLHttpRequest object in an attempt to create an official Web standard.

February 2005 - Prototype js Initial release

As of 2015, Prototype is used by 2.3% of all websites

August 2006 - jQuery Initial release

Un poco de historia… (Parte 2)

- **ECMAScript 5 (December 2009)**
  - Adds a strict mode, getters and setters, new array methods, support for JSON, and more
- **ECMAScript 5.1 (June 2011)**
  - Editorial changes to align ECMA-262 with the third edition of the international standard ISO/IEC 16262:2011
- **ECMAScript 6 (June 2015)**
  - The Sixth Edition adds significant new syntax for writing complex applications, including classes and modules, but defines them semantically in the same terms as ECMAScript 5 strict mode. Other new features include iterators and for/of loops, Python-style generators and generator expressions, arrow functions, binary data, collections (maps, sets and weak maps), and proxies (metaprogramming for virtual objects and wrappers)
- **ECMAScript 7 (Currently in development)**

Paralelamente:

2009 - Angularjs Initial release

October 2010 - Backbone JS Initial release

December 2011 - Ember JS Initial release

2014 - HTML5 Initial release

2008 – First Public Working Draft
2011 – Last Call
2012 – Candidate Recommendation
2014 – Proposed Recommendation and Recommendation

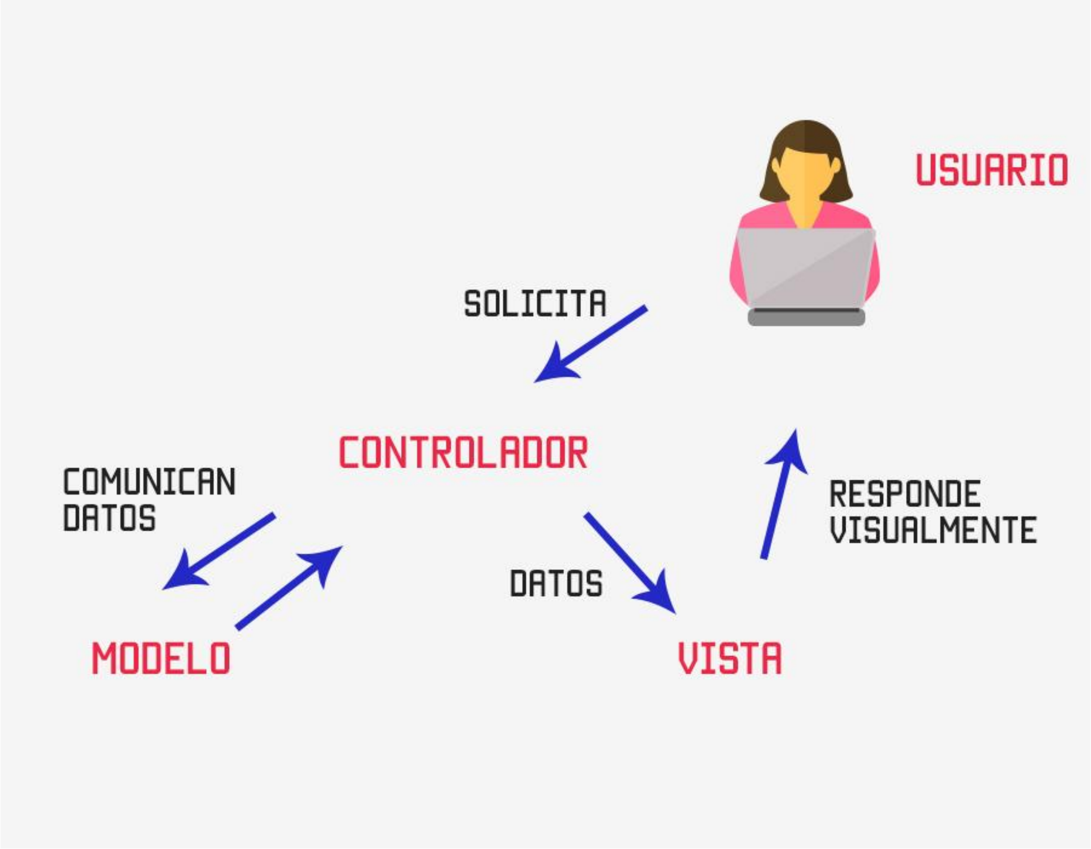
Javascript

JQuery Ajax Animaciones DOM

Bindings Frameworks MVC

→ AngularJS

MVC


USUARIO
SOLICITA
CONTROLADOR
COMUNICAN
DATOS
RESPONDE
VISUALMENTE
DATOS
MODELO
VISTA

“Angular is made for apps”

JS

```
var app = angular.module('mainApp', []);
app.controller('mainCtrl', ['$scope', '$http',
  function($scope, $http) {

    $scope.getBooks = function() {
      $http.get('https://api.booksapi.com/books')
          .success(
             function(data) {
             $scope.books = data;
         }
      );
    };
  }
]);
```

HTML

```
   <div ng-controller="mainCtrl">
      <button ng-click="getBooks()" id="some-element">Get
books</button>
      <div class="books-content" ng-show="books" >
        <div ng-repeat="book in books" class="book-item">
          <h1> {{book.title}}</h1>
          <p>{{book.description}}</p>
          <span>{{book.price}}</span>
        </div>
      </div>
    </div>
```

Controllers

Responden a request de una ruta particular

Controllers

Los controllers son los encargados de inicializar y modificar la información que contienen los scopes en función de las necesidades de la aplicación.

También podemos declarar funciones en el scope que se podrán utilizar más tarde o ser llamadas desde la vista.

Rutas

- Responden a una url
- Derivan el tráfico a los controllers

```
// ...
$routeProvider
        .when('/', {
            templateUrl : 'pages/home.html',
            controller  : 'mainController'
        })
```

Models

Contienen los datos de la aplicación

Data binding

- Sincronización modelo-vista
- Bidireccional:
  - cambia la vista, actualiza el modelo
  - cambia el modelo, actualiza la vista

Views

Fragmentos html con TAGS angular para mostrar datos

Views

Index.html

```
<html>
<head>
// jquery, angular y demas
dependencias
// include script “app.js”
</head>
<body>

</body>
          <div ng-view></div>
</html>
```

/pages/home.html

```
  <div ng-controller="mainCtrl">
      <button ng-click="getBooks()" id="some-element">Get
books</button>
      <div class="books-content" ng-show="books" >
        <div ng-repeat="book in books" class="book-item">
          <h1> {{book.title}}</h1>
          <p>{{book.description}}</p>
          <span>{{book.price}}</span>
        </div>
      </div>
    </div>
```

Módulos

Contenedor de partes de la aplicación

¿Por que módulos?

- No existe un main donde declarar todo
- Permite trabajar con inyección de dependencias

```
/* Archivo app.js */
angular.module('nombre_del_modulo',
['ngRoute','otro_modulo_interno','otro_modulo_externo']);
// Crea el modulo
angular.module('nombre_del_modulo');
// Referencia al modulo
```

Directivas

¿Qué son las directivas?

- Permite extender la sintaxis html:
  - ng-repeat
  - ng-show

```
angular.module('directiveExample', [])
.directive('hello', function() {
    return {
        restrict: 'E',
        template: '<button>Hello Button</button>',
        replace: true,
        compile: function(element) {
            element.bind('click', function() {
                alert('Hello AngularJS!');
            });
        }
    }
});
```

REST

Magento + AngularJS

- **Tiempos de carga más rápidos**
- **Funcionalidad Offline**
- **Gestos touch reales**
- **Multi plataforma y dispositivo**
- **Sensación de app nativa**

http://couchdemoshop.couchcommerce.com/

Herramientas

Bower