

# Cliente API REST con LungoJS

Adolfo Sanz De Diego

Octubre 2013

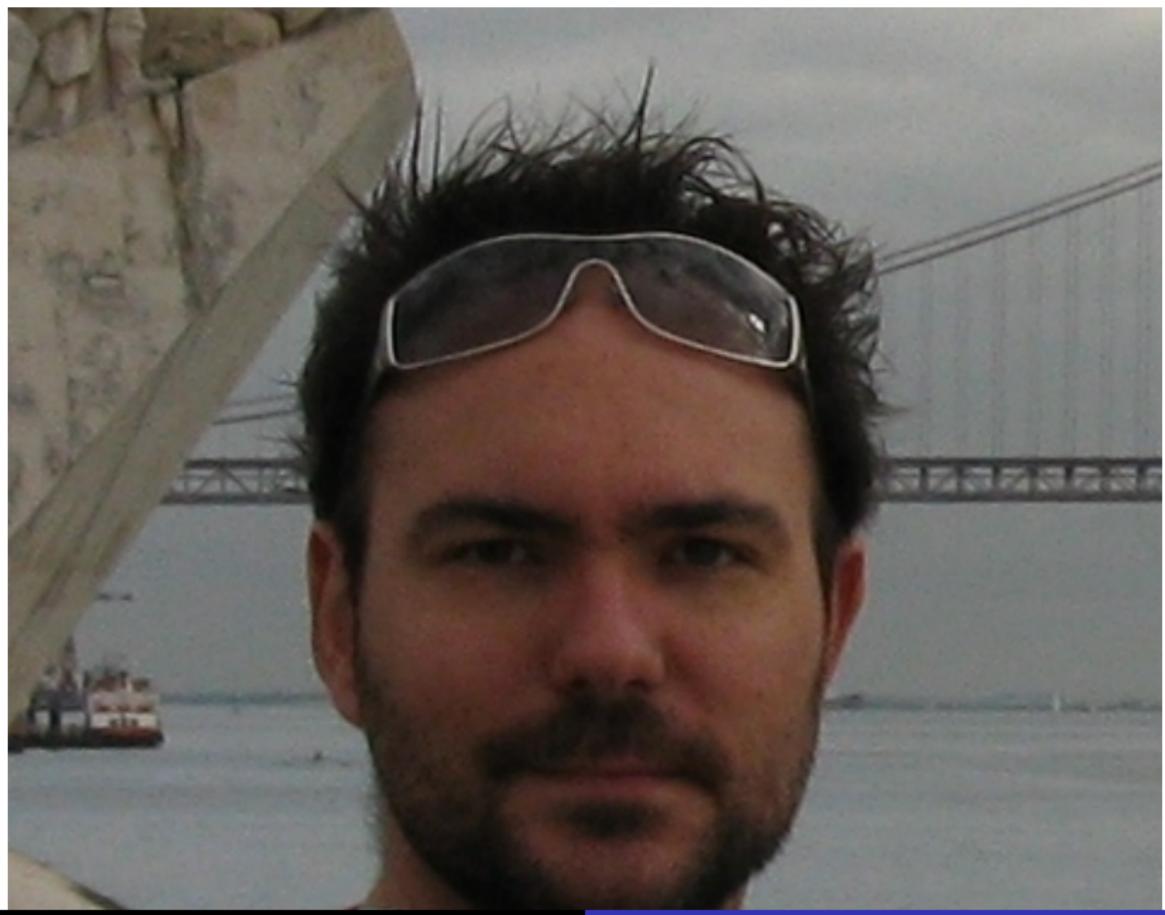


# Acerca de

- El GUL es el **Grupo de Usuarios de Linux de la UC3M**.
- Grupo de personas con inquietudes en torno a la informática.
- Con la idea común de la utilización y promoción del **Software Libre**.
- Quedamos de vez en cuando y organizamos actividades sobre todo esto.
- El punto de unión es la **lista de correo** que está abierta a todo el mundo.

- Twitter: @guluc3m
- Lista: gul@gul.uc3m.es
- Ftp: ftp://ftp.gul.uc3m.es
- Web: http://www.gul.uc3m.es
- Podcast: http://holamundo.gul.es/
- Blog: http://planeta.gul.uc3m.es/
- Linkedin: http://www.linkedin.com/groups?gid=3451836

# Adolfo Sanz De Diego



- **Antiguo programador web JEE**
- Hoy en día:
  - **Profesor de FP de informática:**
    - Hardware, Sistemas Operativos, Redes, Programación
  - **Formador Freelance:**
    - Java, Android
    - JavaScript, jQuery
    - JSF, Spring, Hibernate y Groovy&Grails
  - Programo en mis tiempos libres.

- **Meetup:** <http://www.meetup.com/Hackathon-Lovers/>



Figure: HackathonLovers

- **Twitter:** <http://twitter.com/HackathonLovers>



- Mi nick: **asanzdiego**
- AboutMe: <http://about.me/asanzdiego>
  - GitHub
  - Twitter
  - Blog
  - LinkedIn
  - Google+

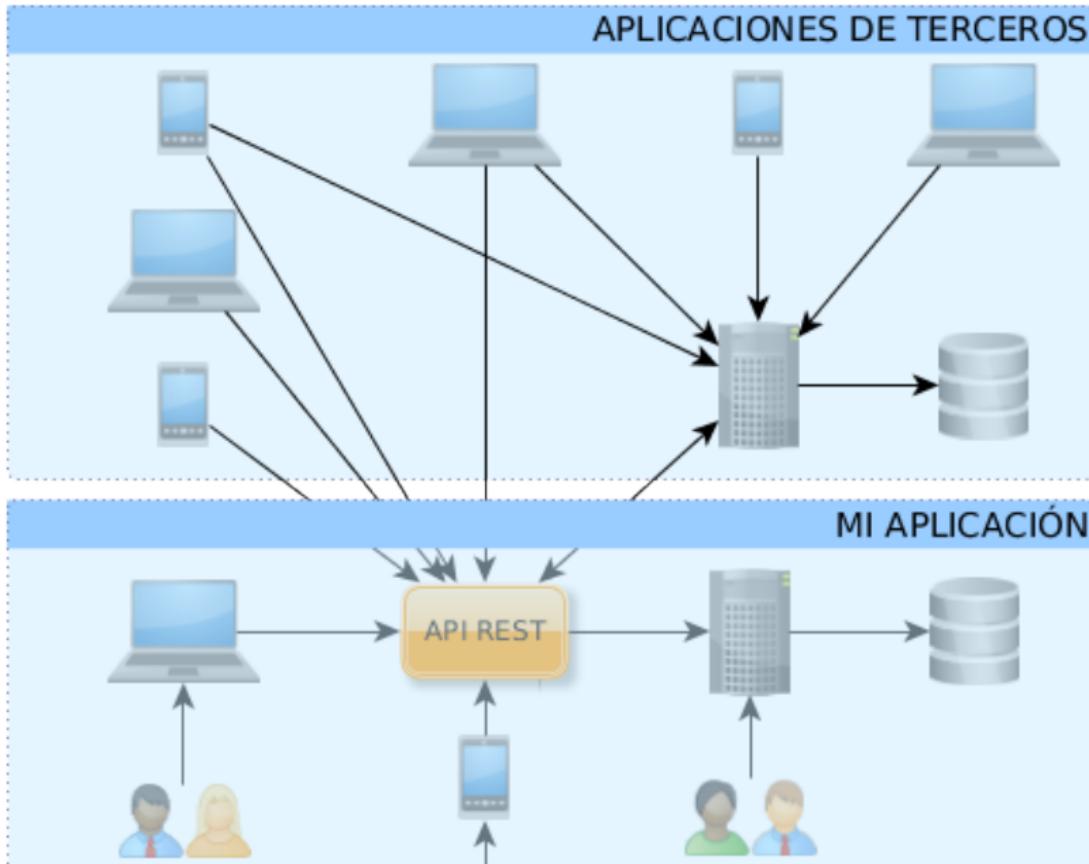
- Estas **transparencias** están bajo una licencia:
  - Creative Commons Reconocimiento-CompartirIgual 3.0
- El **código fuente** de los programas están bajo una licencia:
  - GPL 3.0

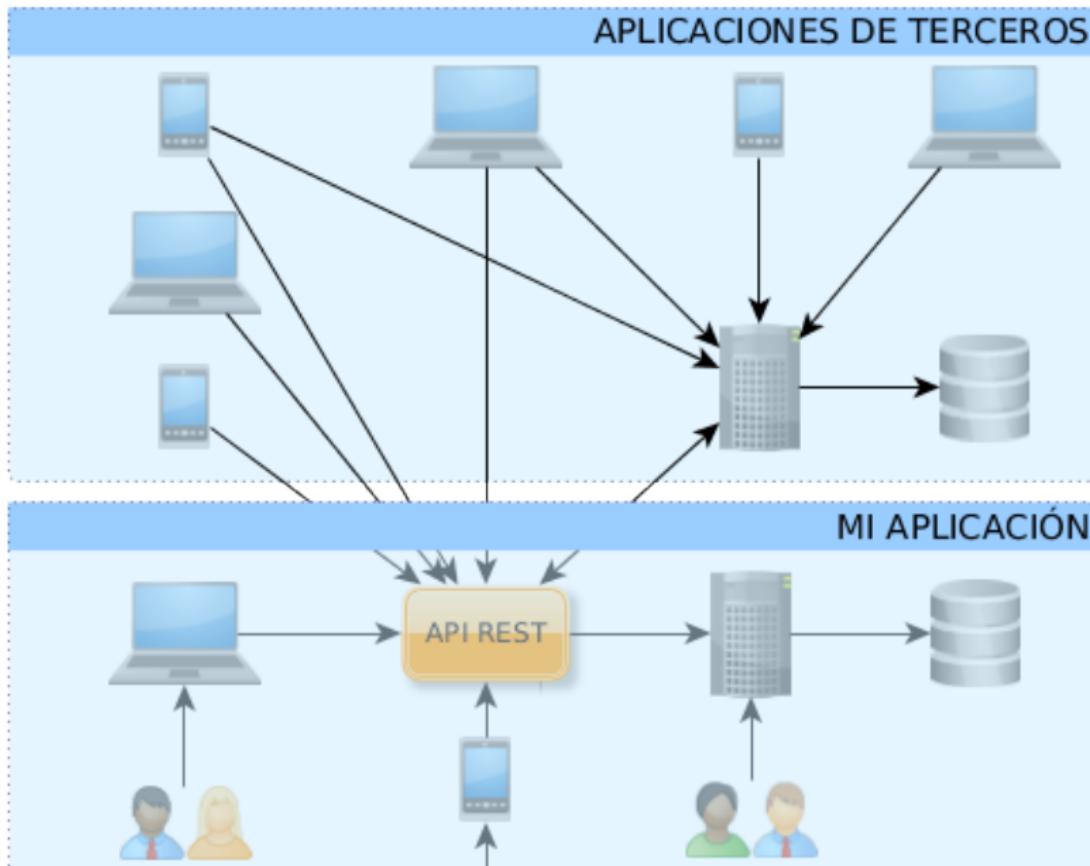
||

APIs ¿Para qué?

¿Querías saber  
de APIs RESTful?









Exponlas tú







Figure: Ejemlo Taza Relaxing Cup Guay



## APIs RESTful

- Una **URL** (Uniform Resource Locator) representa un **recurso**.
- Se puede acceder al recurso o modificarlo mediante los **métodos del protocolo HTTP**:
  - POST, GET, PUT, DELETE

- **http://myhost.com/talk**
  - GET > Devuelve todas las charlas.
  - POST > Crear una nueva charla.
- **http://myhost.com/talk/123**
  - GET > Devuelve la charla con id=123
  - PUT > Actualiza la charla con id=123
  - DELETE > Borra la charla con id=123

- Se pueden utilizar los errores del protocolo HTTP:

- 200 Successful
- 201 Created
- 202 Accepted
- 301 Moved Permanently
- 400 Bad Request
- 401 Unauthorised
- 402 Payment Required
- 403 Forbidden
- 404 Not Found
- 405 Method Not Allowed
- 500 Internal Server Error
- 501 Not Implemented

- Es **más sencillo** (tanto la API como la implementación).
- Es **más rápido** (peticiones más ligeras que se pueden cachear).
- Es **multiformato** (HTML, XML, JSON, etc.).
- Se complementa muy bien con **AJAX**.

# IV

## Clientes multidispositivo



Figure: Distintos dispositivos





## Distintos navegadores



Figure: Distintos navegadores

¡¡¡Socorro!!!

# ¡¡¡SOCORRO!!!



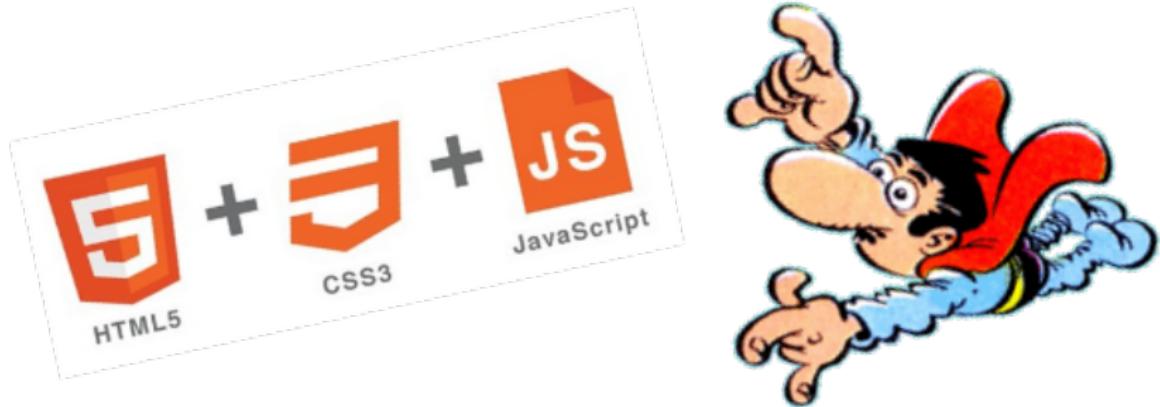


Figure: AI rescate



Figure: Graceful Degradation

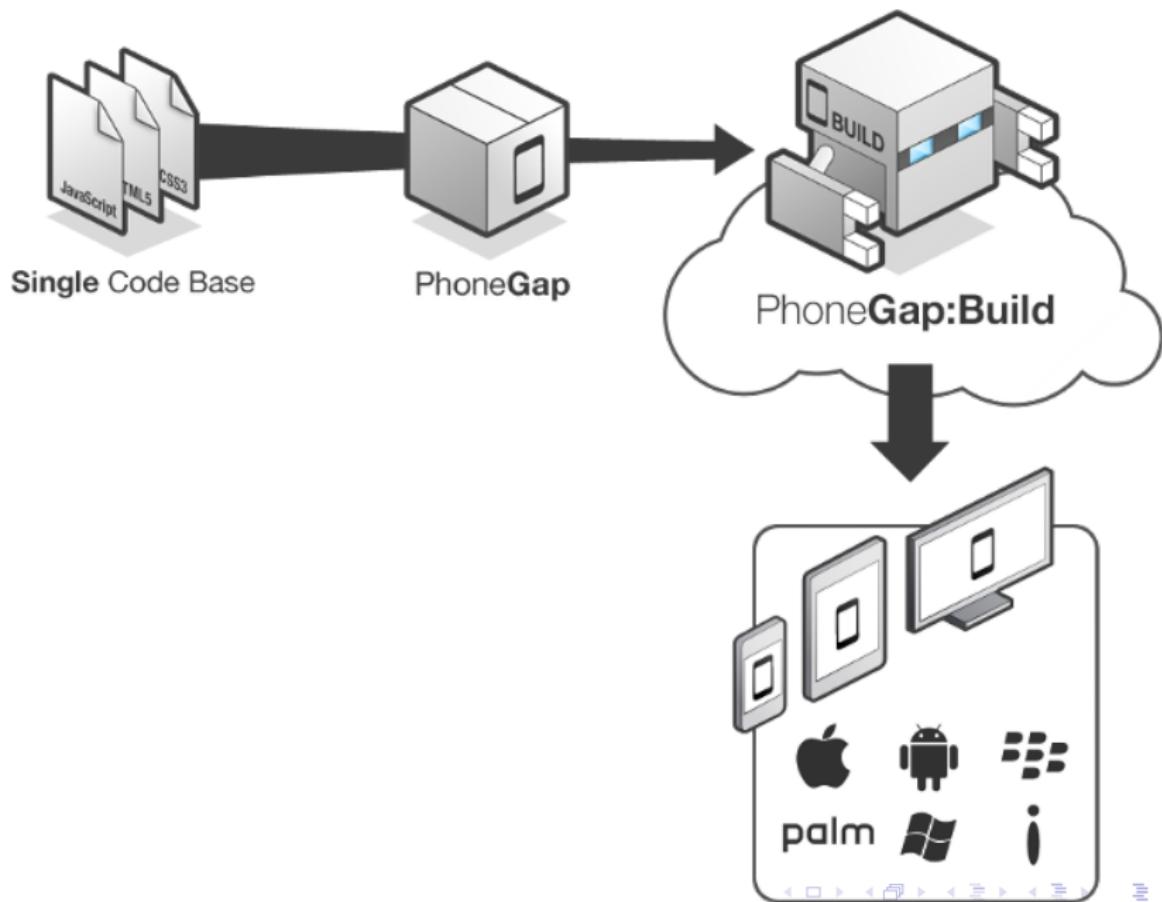


Figure: Graceful Degradation Mal

# Progressive Enhancement



Figure: Progressive Enhancement



V

Lungo.js

- jQTouch
- Sencha Touch
- jQueryMobile
- hammer.js



Figure: Nubes Lungo





Pues no

**¡PUES NO!**



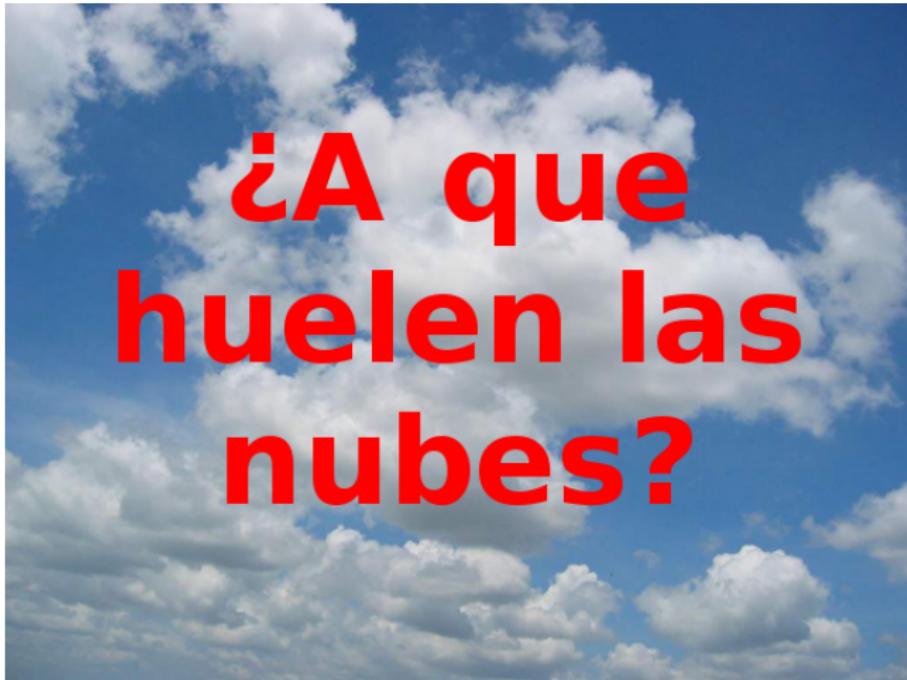


Figure: A que huelen las nubes



**Estoy  
aburrido.**

**Quiero ver código  
de una vez.**

©lyn estall

VI

## Código



- Puedes usar la estructura de directorios que quieras.
- Yo he usado esta:
  - **html**: los HTML con una carpeta para cada entidad del domino
  - **js**: los JS con una carpeta para cada entidad del domino
  - **lib**: carpeta con las dependencias a otros proyectos
  - Lungo depende de Quo que es una librería de los mismos autores de 'tipo' jQuery enfocada a móviles

```
// Search
$$('document').ready(function(){
    Lungo.dom('input[type=search]').on('keyup', ...);
});

// Date format
var util_dateFormat = "DD/MM/YYYY HH:mm:ss";

// Server URL
var util_server_url = "http://localhost:3000";

// Error Notification
var util_errorNotification = function(message, error) {
    Lungo.Notification.error(message, "", "warning-sign", 2);
};

// Métodos REST
var util_ajaxGet = function(url, data, callback) {
    $$._get(util_server_url+url, data, ..., 'json');
};
var util_ajaxPost = function(url, data, callback) {...};
var util_ajaxPut = function(url, data, callback) {
```

```
<body class="app">
<section id="main" data-transition="">
  <header data-title="Add Talk" class="extended"></header>
  <footer>
    <nav>
      <a href="talk-list.html" data-icon="list"></a>
      <a href="talk-add.html" data-icon="plus" class="active"></a>
    </nav>
  </footer>
  <article id="main-article" class="active list">
    <div class="form">
      <fieldset>
        <label>NAME:</label><input type="text" id="talkName" />
      </fieldset>
      ...
      <fieldset>
        <label>NUM:</label><input type="number" id="talkNum" />
      </fieldset>
    </div>
    <div>
      <a href="#addTalk" id="addTalk" class="button">Add</a>
      <a href="talk-list.html" class="button cancel">Cancel</a>
    </div>
  </article>
</section>
```

## Add Talk

TALK NAME: Enter the talk name

TALK DATE: dd/mm/yyyy hh:mm:ss

SPEAKER NAME: Enter the speaker name

SPEAKER MAIL: speaker@mail.es

TALK POINTS: 0



Add

Cancel



```
 $$('#addTalk').tap(function(){
  var data = {
    talkName:      $$("#talkName").val(),
    talkDate:      util_stringToDate($$("#talkDate").val()),
    talkSpeaker:   $$("#talkSpeaker").val(),
    talkSpeakerMail: $$("#talkSpeakerMail").val(),
    talkPoints:    $$("#talkPoints").val()
  };
  // send data to server
  util_ajaxPost('/talk', data, function(json) {
    if(!json || json.error) {
      util_errorNotification('ERROR adding talk', json.error);
    } else {
      util_successNotification('Talk saved', function() {
        window.location.replace('talk-list.html');
      });
    }
  });
});
```

```
<body class="app">
  <section id="main" data-transition="">
    <header data-title="Edit Talk" class="extended"></header>
    <nav data-control="groupbar">
      <a href="#editTalkArticle" ...>Edit</a>
      <a href="#deleteTalkArticle" ...>Delete</a>
    </nav>
    <footer>
      ...
    </footer>
    <article id="editTalkArticle" class="list indented scroll">
      ...
    </article>
    <article id="deleteTalkArticle" class="list indented scroll">
      ...
    </article>
  </section>
  <script>Lungo.init({});</script>
</body>
```

## Edit Talk

 Edit

 Delete

TALK NAME: Clientes APIs RESTful con Lungo

TALK DATE: 22/10/2012 19:00:00

SPEAKER NAME: Adolfo Sanz De Diego

SPEAKER MAIL: asanzdiego@gmail.com

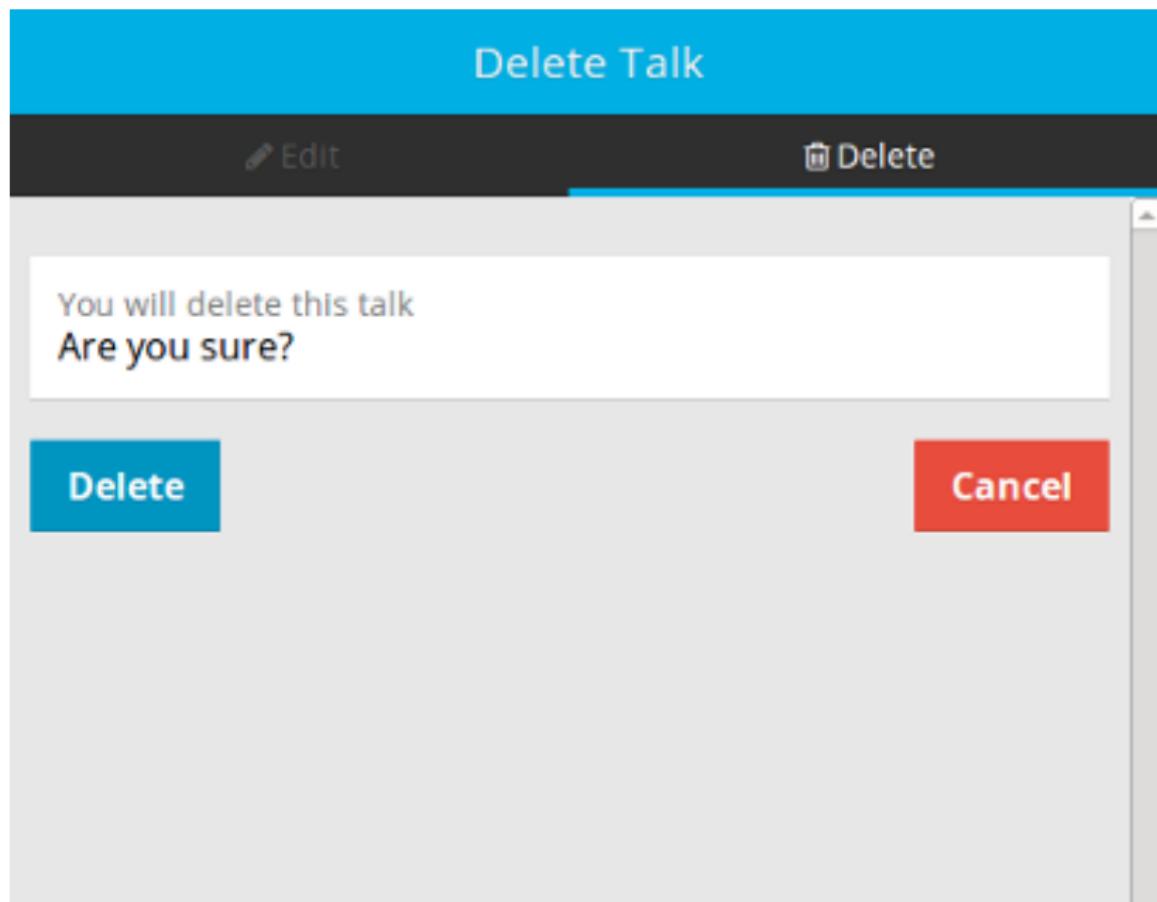
TALK POINTS: 10



Save

Cancel





```
$(document).ready(function(){

  var talkId = util_urlParams["talkId"];

  // get data from server
  util_ajaxGet('/talk/'+talkId, {}, function(json) {
    if(!json || json.error) {
      util_errorNotification('ERROR retrieving talk', json.error);
    } else {
      var talk = json;
      console.log('Talk retrieved');
      drawTalk(talk);
    }
  });

  // draw data
  var drawTalk = function(talk) {
    $("#talkName").val(talk.talkName);
    $("#talkDate").val(util_dateToString(talk.talkDate));
    $("#talkSpeaker").val(talk.talkSpeaker);
    $("#talkSpeakerMail").val(talk.talkSpeakerMail);
    $("#talkPoints").val(""+talk.talkPoints);
  }
});
```

```
 $$('#saveTalk').tap(function(){
    var talkId = util_urlParams["talkId"];
    var data = {
        talkName:      $$("#talkName").val(),
        talkDate:      util_stringToDate($$("#talkDate").val()),
        talkSpeaker:   $$("#talkSpeaker").val(),
        talkSpeakerMail: $$("#talkSpeakerMail").val(),
        talkPoints:    $$("#talkPoints").val()
    };
    // send data to server
    util_ajaxPut('/talk/' + talkId, data, function(json) {
        if(!json || json.error) {
            util_errorNotification('ERROR saving talk', json.error);
        } else {
            util_successNotification('Talk saved', function() {
                window.location.replace('talk-list.html');
            });
        }
    });
});
```

```
 $$('#deleteTalk').tap(function(){
  var talkId = util_urlParams["talkId"];
  // send data to server
  util_ajaxDelete('/talk/'+talkId, {}, function(json) {
    if(!json || json.error) {
      util_errorNotification('ERROR deleting talk', json.error);
    } else {
      util_successNotification('Talk deleted', function() {
        window.location.replace('talk-list.html');
      });
    }
  });
});
```

```
<body class="app">
  <section id="main" data-transition="">
    <header data-title="Talks List" class="extended"></header>
    <footer>
      <nav>
        <a href="talk-list.html" data-icon="list" class="active"></a>
        <a href="talk-add.html" data-icon="plus"></a>
      </nav>
    </footer>
    <article id="main-article" class="active list indented scroll">
      <div class="form">
        <fieldset data-icon="search">
          <input type="search" placeholder="Search... ">
        </fieldset>
      </div>
      <ul id="talks"></ul>
    </article>
  </section>
  <script>Lungo.init({});</script>
</body>
```

## Talks List

Search...



**Servidor con APIs RESTful con Node (22/10/2013 18:00:00)**

Adolfo (asanzdiego@gmail.com)

Points: 5

**Clientes APIs RESTful con Lungo (22/10/2012 19:00:00)**

Adolfo Sanz De Diego (asanzdiego@gmail.com)

Points: 10



## Talks List

Lu



**Clientes APIs RESTful con Lungo (22/10/2012 19:00:00)**  
Adolfo Sanz De Diego (asanzdiego@gmail.com)  
Points: 10



```
$(document).ready(function(){

    // get data from server
    util_ajaxGet('/talk', {}, function(json) {
        if(!json || json.error) {
            util_errorNotification('ERROR retrieving talks', json.error);
        } else {
            var talks = json;
            console.log(talks.length+ ' talks retrieved');
            drawTalks(talks);
        }
    });

    // draw data
    var drawTalks = function(talks) {
        for (var i = 0; i < talks.length; i++) {
            var talk = talks[i];
            $('#talks').append(
                '<li data-action="search" class="selectable">' +
                '<a href="talk-edit.html?talkId=' + talk._id + '">' +
                '<strong>' + talk.talkName + '</strong>' +
                '<small>' + talk.talkSpeaker + '</small></a></li>');
        }
    };
});
```

VII

Demo

## VIII

¿Alguna pregunta?