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# 10-AJAX Introduction

## Course: Developing web-based applications

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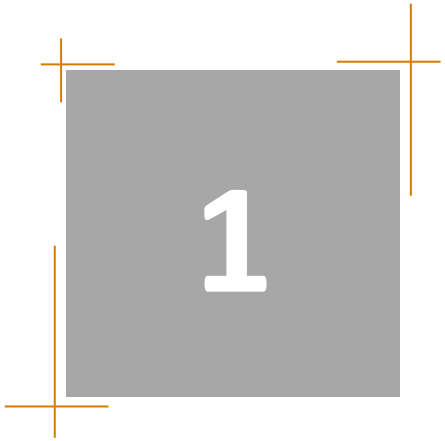



# AJAX definition

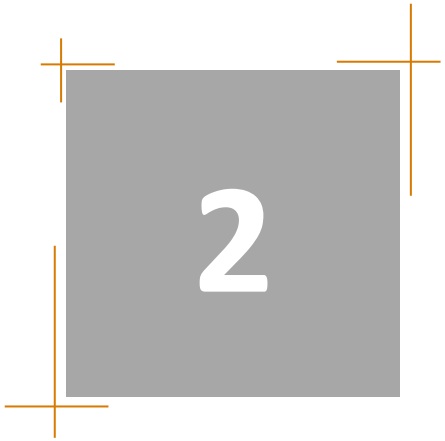
# What is AJAX?

- It is not another programming language, but a group of technologies.
- It is a group of web development methods to create interactive web applications..
- Combines HTML, CSS, JavaScript, XML, and web services.

# What is AJAX?

- Definition:
  - acronym for Asynchronous JavaScript and XML

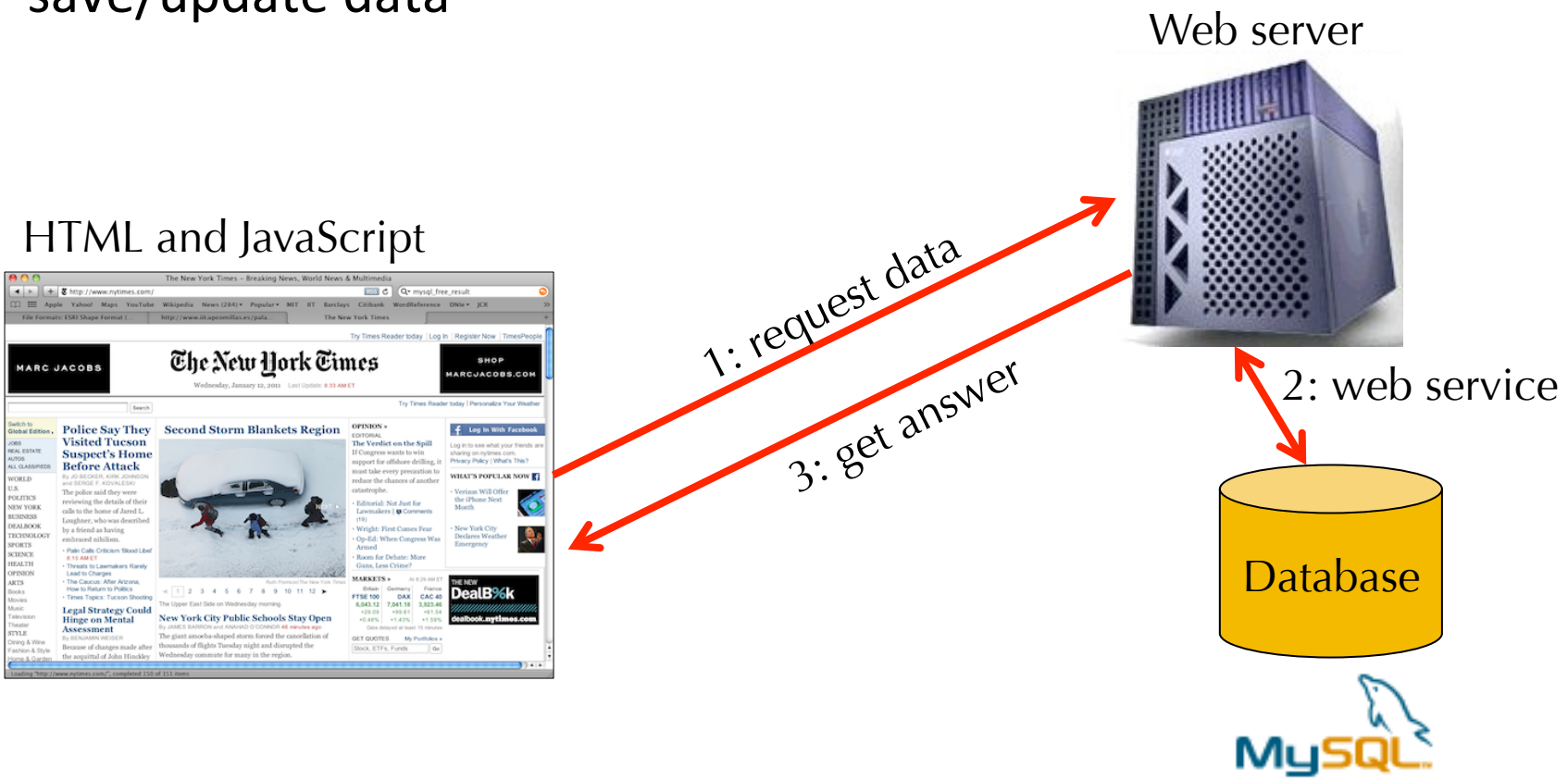
- Characteristics
  - Combines JavaScript with web services (typically PHP)
  - More interactive applications
  - Strong support of HTML5 and CSS




# AJAX applications

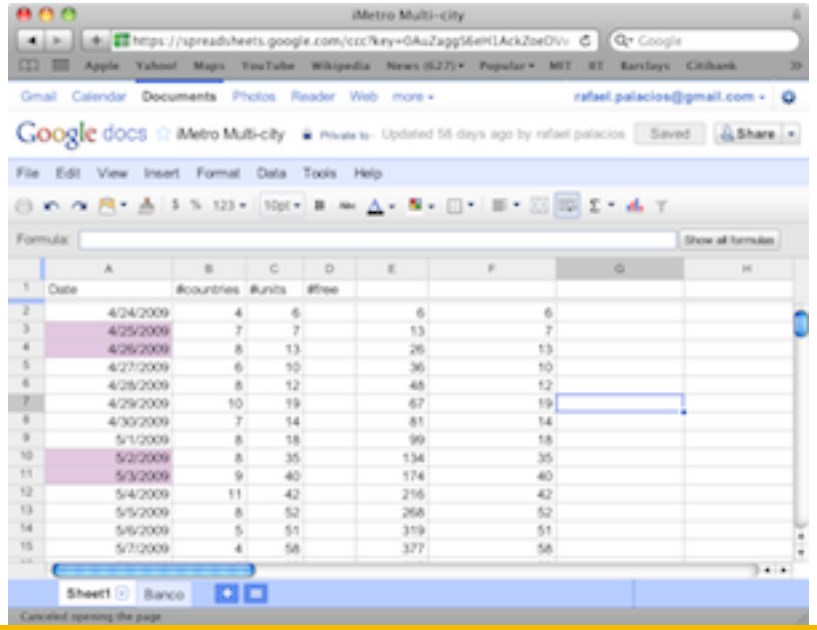
# AJAX applications

- JavaScript applications communicate with web server to get/ save/update data



# AJAX examples

- Google Auto-complete
- Google Docs



# AJAX code example (HTML part)

```
//HTML objects

<select name="areas" onchange="MyAJAX(this.value);">
   <option>--Select Area--</option>
   <option value="13">ASI</option>
   <option value="11">ADI</option>
   <option value="14">GEA</option>
   <option value="15">ASF</option>
   <option value="1">REDES</option>
   <option value="2">MAC</option>
   <option value="3">SADSE</option>
   <option value="4">RYE</option>
</select>

<br>

<div id="list">
</div>
```

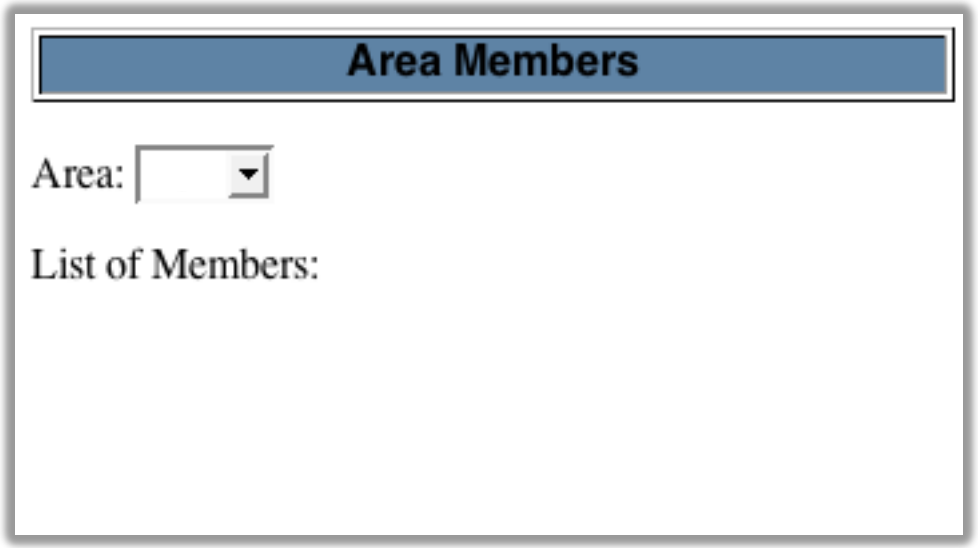
JavaScript function to be called

Empty container

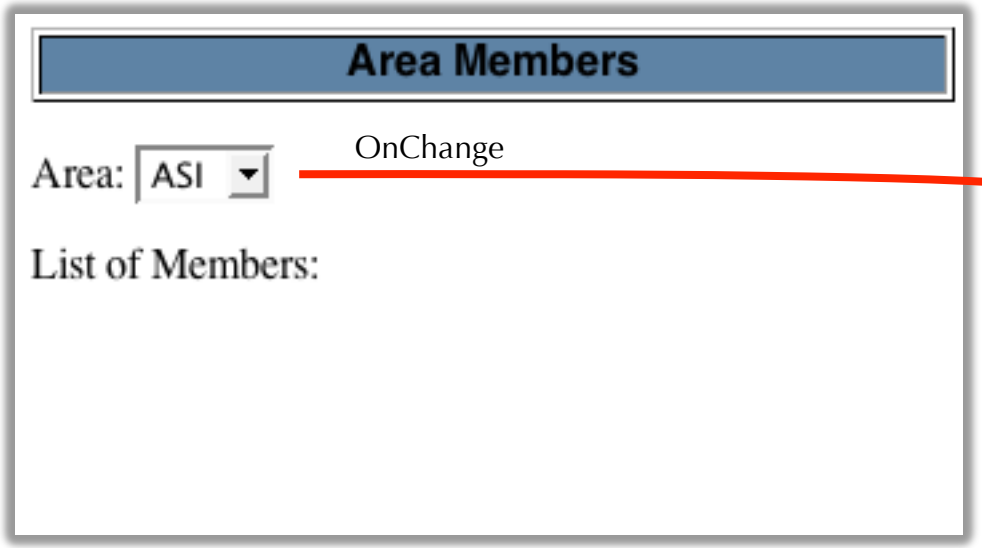
# AJAX code example (JavaScript part)

```
//JavaScript function
function MyAJAX(value)
{
   var destination=document.getElementById("list");
   var doc = null;

   doc = new XMLHttpRequest();
   if (doc){
      var my_url="http://www.iit.upcomillas.es/palacios/cursoAppWeb/areas.php?area="+value;
      doc.open("GET", my_url, false);
      doc.send(null);

      //store result in list object
      destination.innerHTML = doc.responseText;
   }else{
      destination.innerHTML = 'Browser unable to create XMLHttp Object';
   }
}
```

# AJAX code example

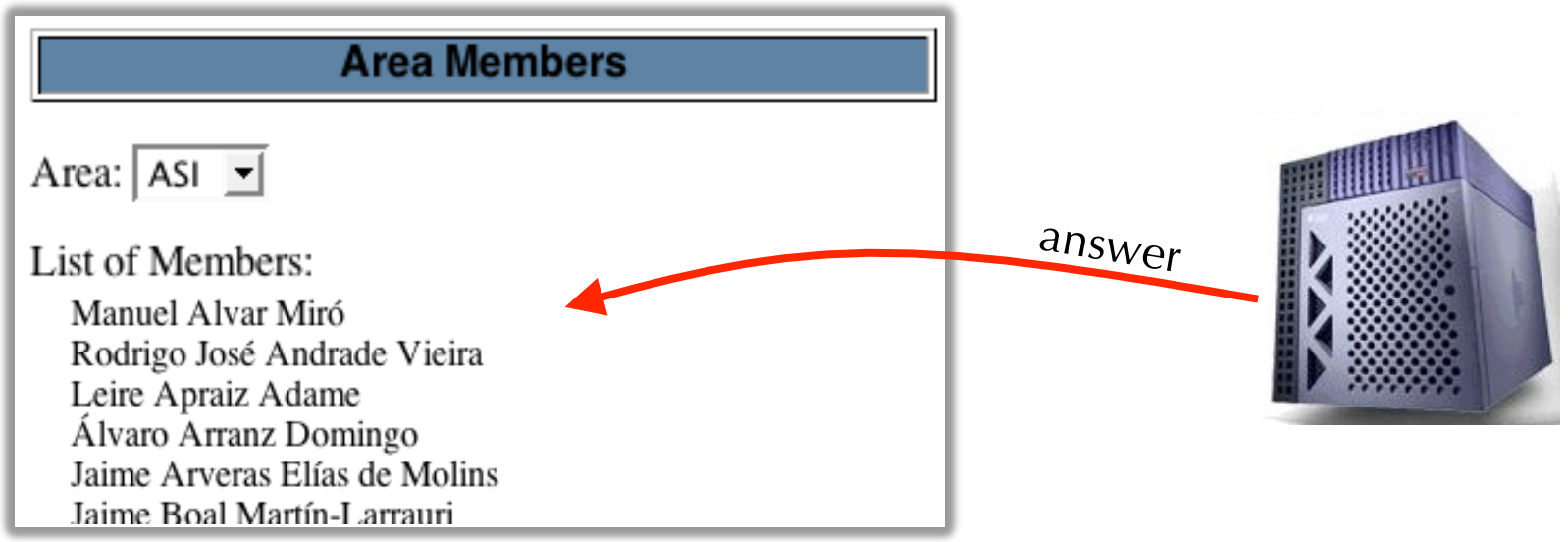


# AJAX code example



Web Service

# AJAX code example




Note: Using forms and PHP, the answer is always a complete HTML page.

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# Summary

# AJAX Summary

- Advantages
  - Minimum data traffic
  - More interactive applications
  - No need to redraw the whole page
  - No need to wait for the output (Ex. Google maps)

- Disadvantages
  - JavaScript needs to be enabled
  - Usually requires active Internet connection

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