



Programación de Aplicaciones Web

Electivo III

Román Gajardo



<https://github.com/romanncodes>



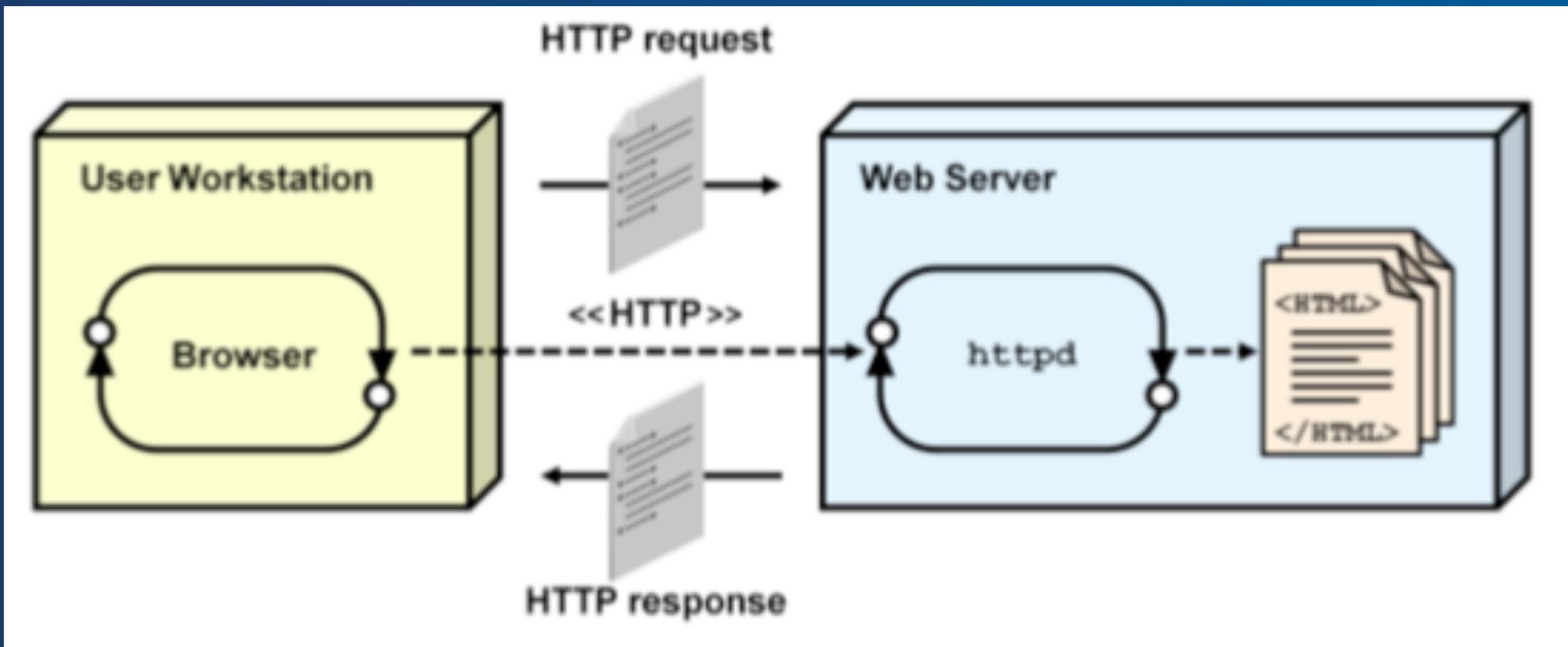
roman.gajardo@gmail.com





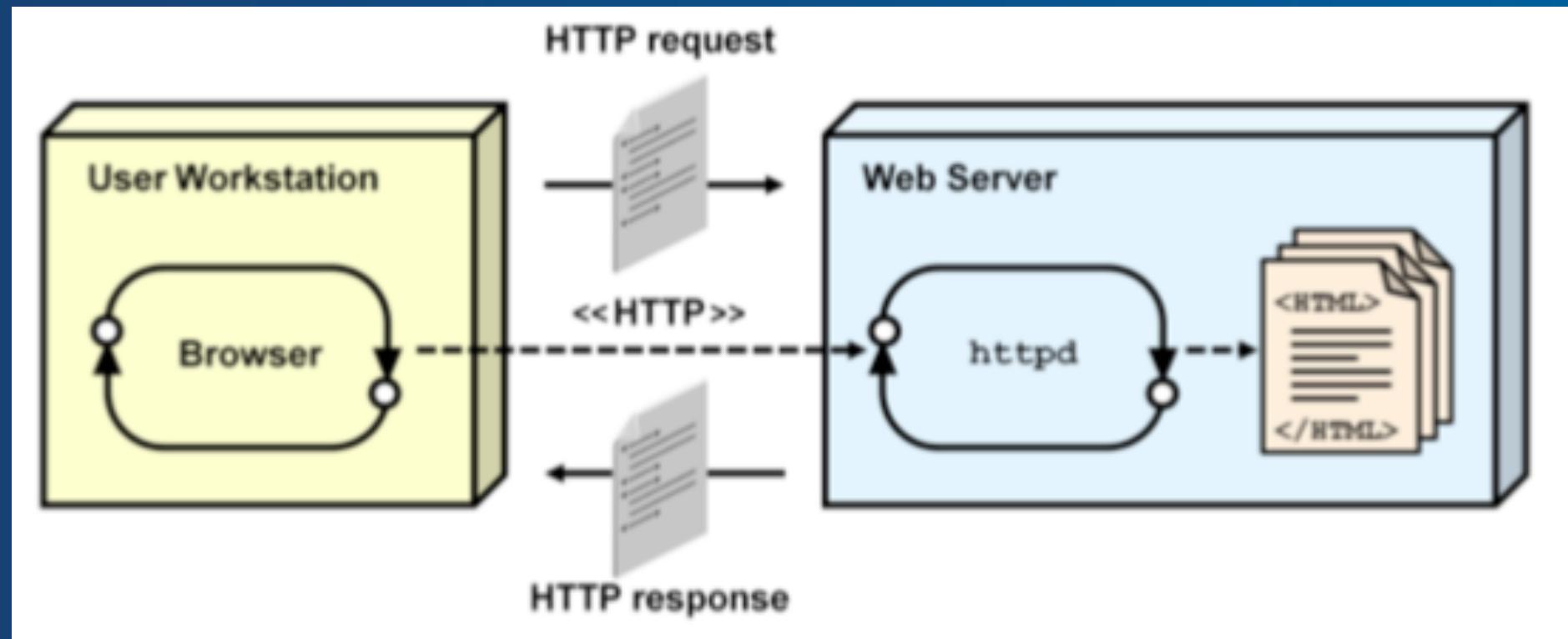
Contenidos

- Tecnologías Web
- HTML
- CSS

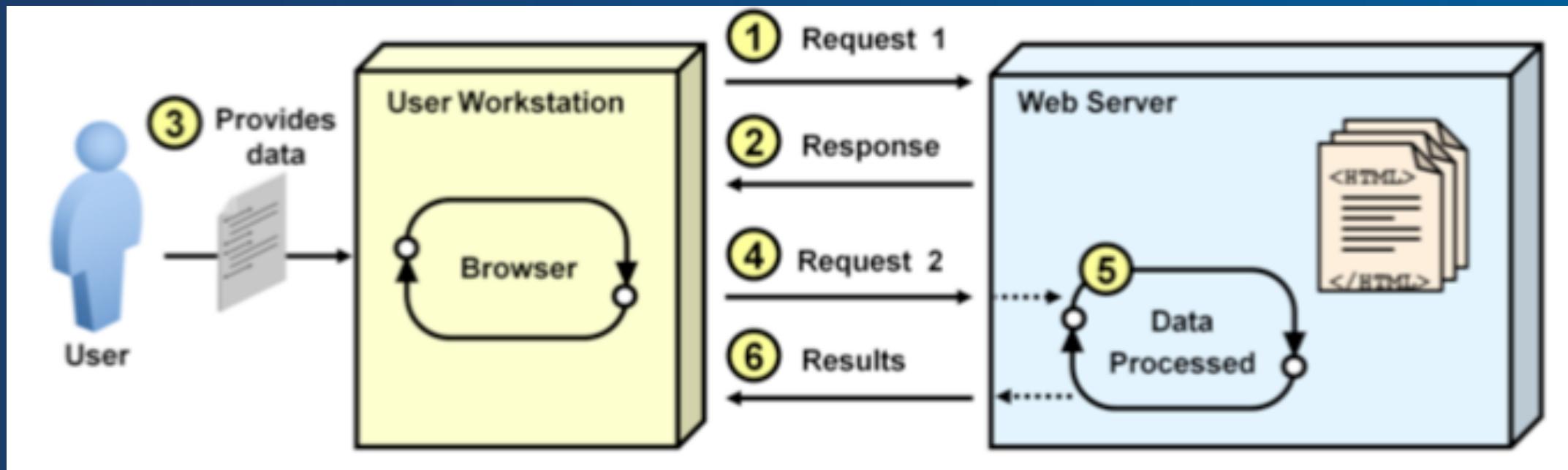


Arquitectura cliente/servidor

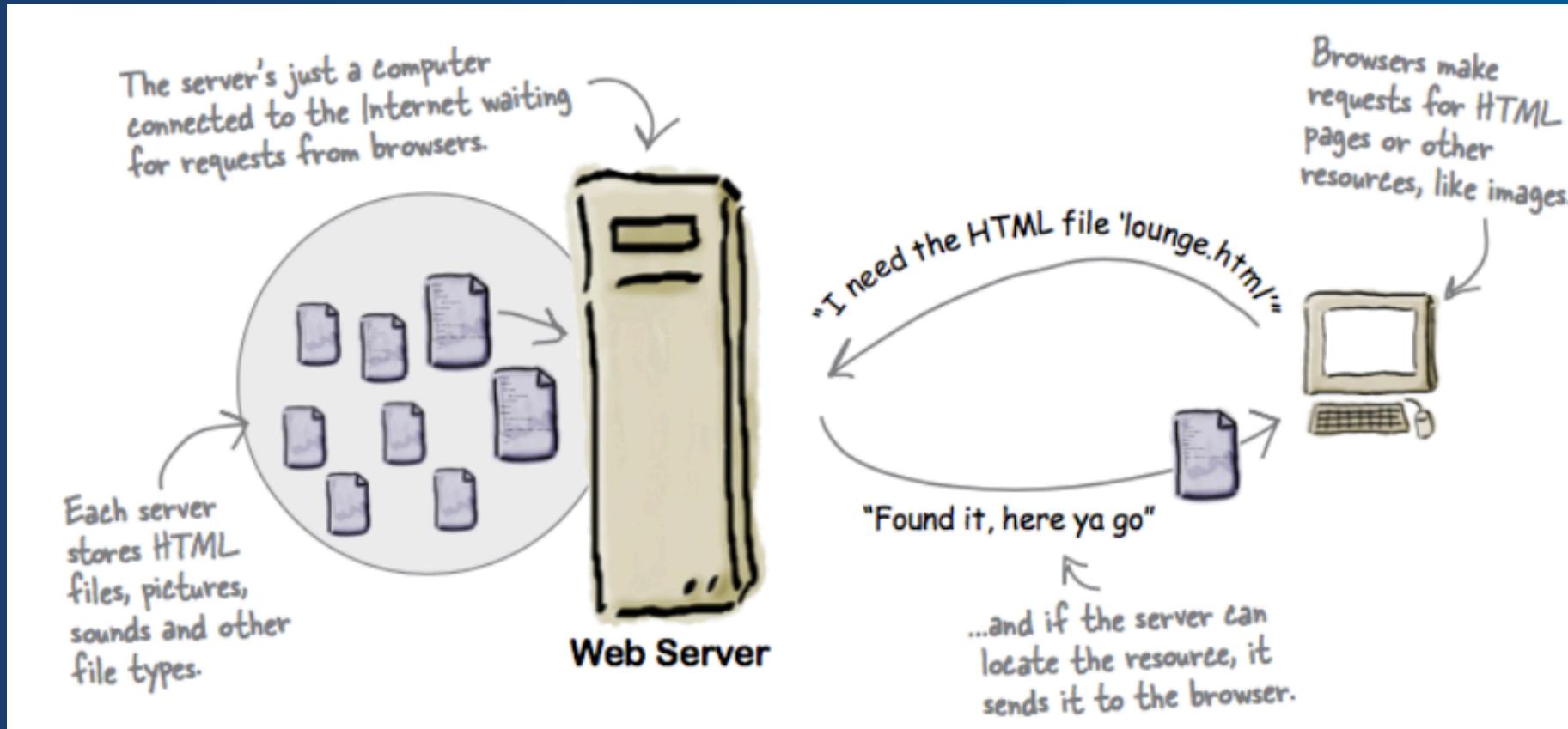
- Hyper Text Transfer Protocol
- Sin estado
- Html



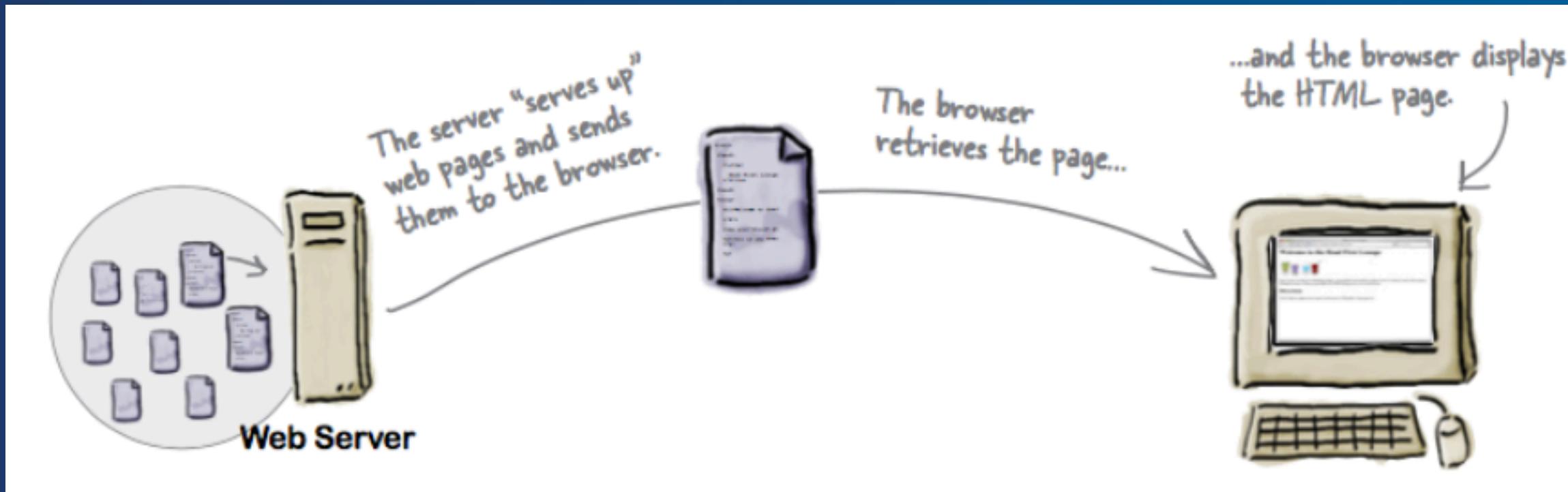
Como funciona?



■ Qué hace un servidor web?

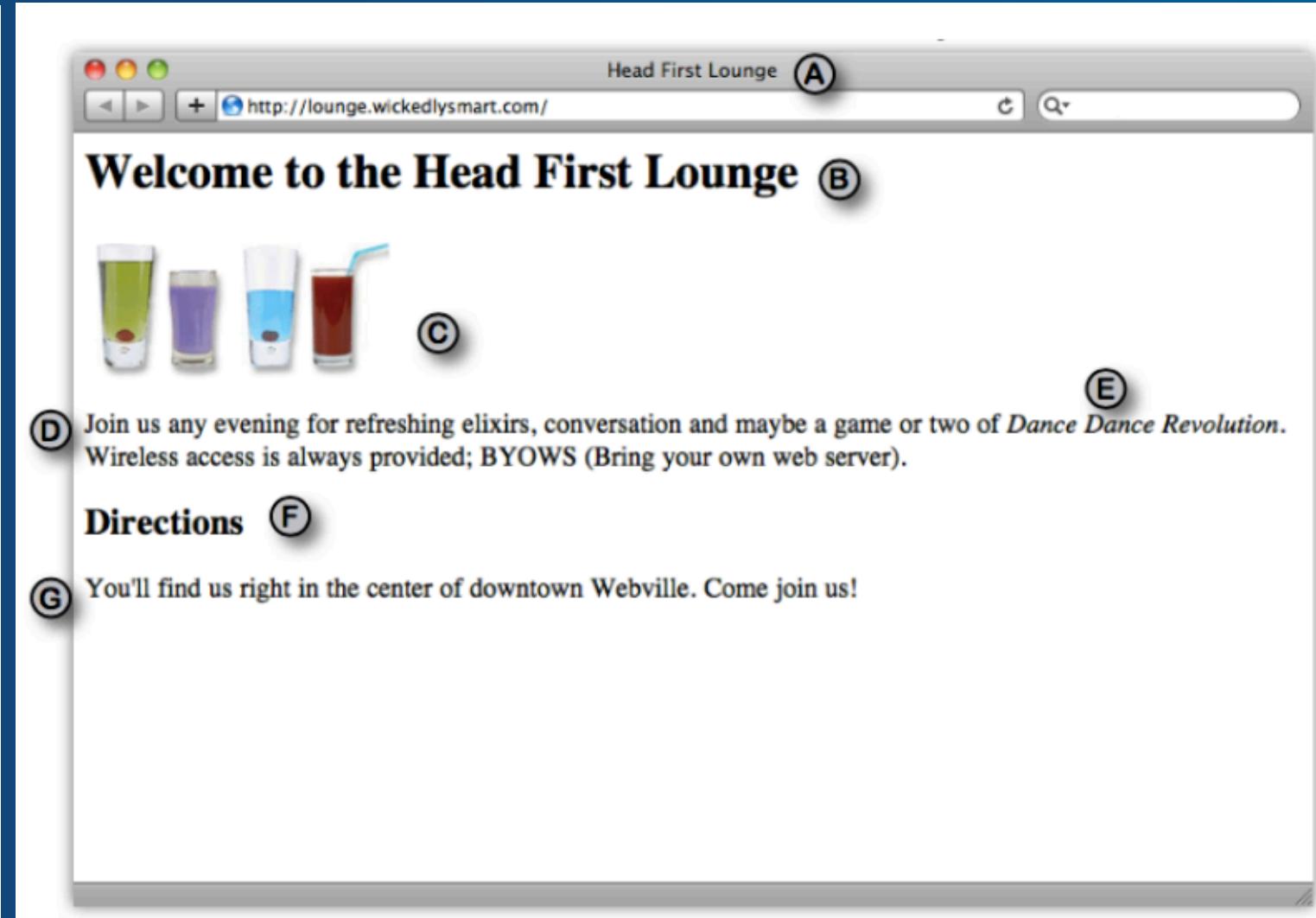


■ Qué hace un navegador?



Que hace un navegador

```
<html>
  <head>
    <title>Head First Lounge</title> A
  </head>
  <body>
    <h1>Welcome to the Head First Lounge</h1> B
     C
    <p>
      D Join us any evening for refreshing elixirs,
      conversation and maybe a game or
      two of <em>Dance Dance Revolution</em>. E
      Wireless access is always provided;
      BYOWS (Bring your own web server).
    </p>
    <h2>Directions</h2> F
    <p>
      G You'll find us right in the center of
      downtown Webville. Come join us!
    </p>
  </body>
</html>
```



D Join us any evening for refreshing elixirs, conversation and maybe a game or two of *Dance Dance Revolution*. E
Wireless access is always provided; BYOWS (Bring your own web server).

Directions F

G You'll find us right in the center of downtown Webville. Come join us!

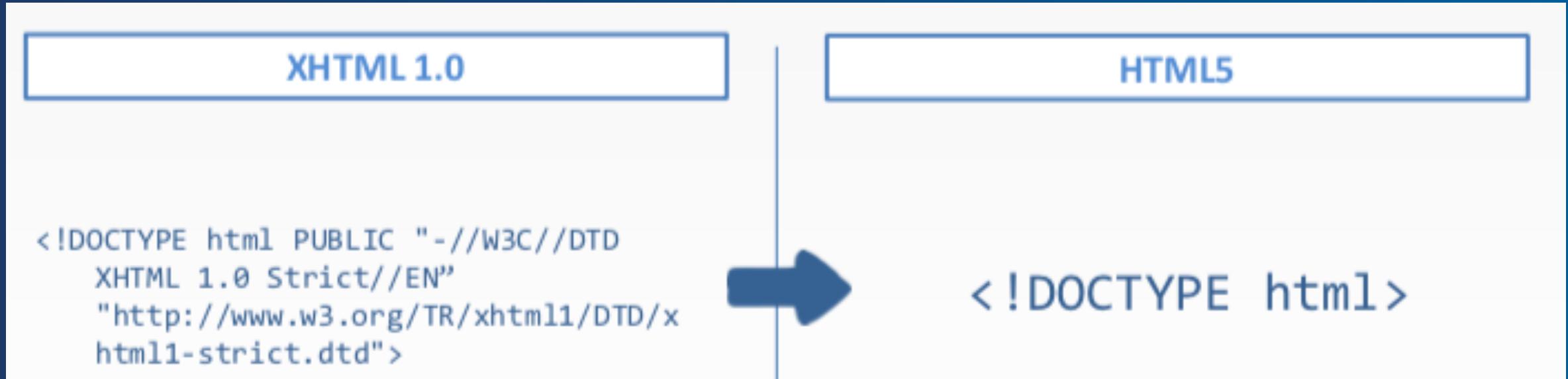
HTML

- Hyper Text Markup Language
- Textos
- Imágenes
- Vínculos
- Tablas
- Form
- Cajas

```
● ● ●  
<!doctype>  
<html>  
  <head>  
    <title> Titulo </title>  
  </head>  
  <body>  
    Cuerpo  
  </body>  
</html>
```

Novedades

- Etiquetado documento DocType



Novedades

- Etiquetado documento meta

HTML 4.01

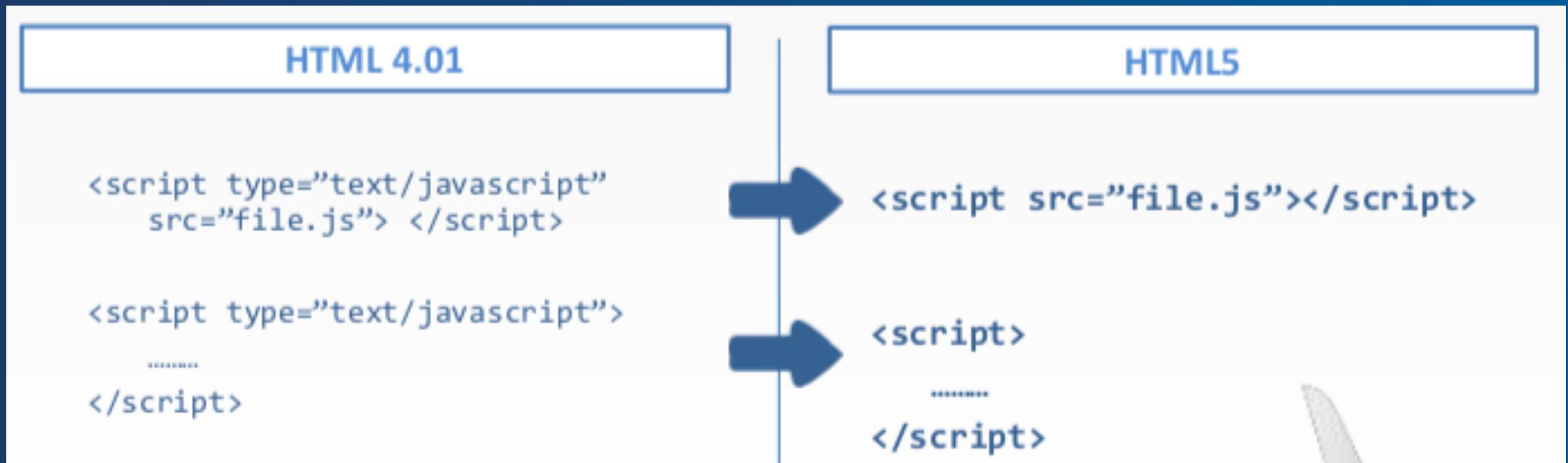
```
<meta http-equiv="Content-Type"  
      content="text/html; charset=UTF-8">
```

HTML5

```
<meta charset="UTF-8">
```

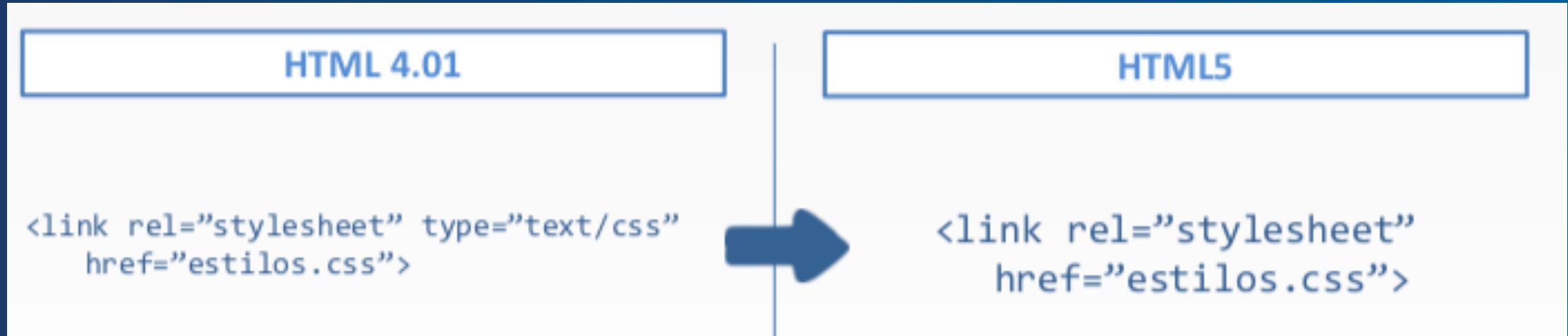
Novedades

- Etiquetado documento script



Novedades

- Etiquetado documento css



■ Textos [títulos]



```
<h1>Texto en H1</h1>
<h2>Texto en H2</h2>
<h3>Texto en H3</h3>
<h4>Texto en H4</h4>
<h5>Texto en H5</h5>
<h6>Texto en H6</h6>
```

Texto en H1

Texto en H2

Texto en H3

Texto en H4

Texto en H5

Texto en H6

■ Textos [párrafos]



```
<p>
Lorem ipsum dolor sit cuchuflí barquillo bacán jote gamba listeilor po cahuín, luca melón con vino
pichanga coscacho ni ahí peinar la muñeca chuchada al chancho achoclonar. Chorrocientos pituto ubicatex
huevo duro bolsero cachureo del queque en cana el año del loly hacerla corta impeque de miedo quilerry
longi ñecla. Hilo curado rayuela carrete quina guagua lorea piola ni ahí.
</p>
<p>
Lorem ipsum dolor sit cuchuflí barquillo bacán jote gamba listeilor po cahuín, luca melón con vino
pichanga coscacho ni ahí peinar la muñeca chuchada al chancho achoclonar. Chorrocientos pituto ubicatex
huevo duro bolsero cachureo del queque en cana el año del loly hacerla corta impeque de miedo quilerry
longi ñecla. Hilo curado rayuela carrete quina guagua lorea piola ni ahí.
</p>
```

■ Textos [párrafos]

Lorem ipsum dolor sit cuchuflí barquillo bacán jote gamba listeilor po cahuín, luca melón con vino pichanga coscacho ni ahí peinar la muñeca chuchada al chancho achoclonar. Chorrocientos pituto ubicatex huevo duro bolsero cachureo del queque en cana el año del loly hacerla corta impeque de miedo quilerry longi ñecla. Hilo curado rayuela carrete quina guagua lorea piola ni ahí.

Lorem ipsum dolor sit cuchuflí barquillo bacán jote gamba listeilor po cahuín, luca melón con vino pichanga coscacho ni ahí peinar la muñeca chuchada al chancho achoclonar. Chorrocientos pituto ubicatex huevo duro bolsero cachureo del queque en cana el año del loly hacerla corta impeque de miedo quilerry longi ñecla. Hilo curado rayuela carrete quina guagua lorea piola ni ahí.

■ Textos [saltos de línea]



```
<p>  
    Nombre: Walter White  
    Apodo: Heisemberg  
    Profesión: Profesor de Química  
</p>
```

Nombre: Walter White Apodo: Heisemberg Profesión: Profesor de Química



```
<p>  
    Nombre: Walter White<br/>  
    Apodo: Heisemberg<br/>  
    Profesión: Profesor de Química<br/>  
</p>
```

Nombre: Walter White
Apodo: Heisemberg
Profesión: Profesor de Química

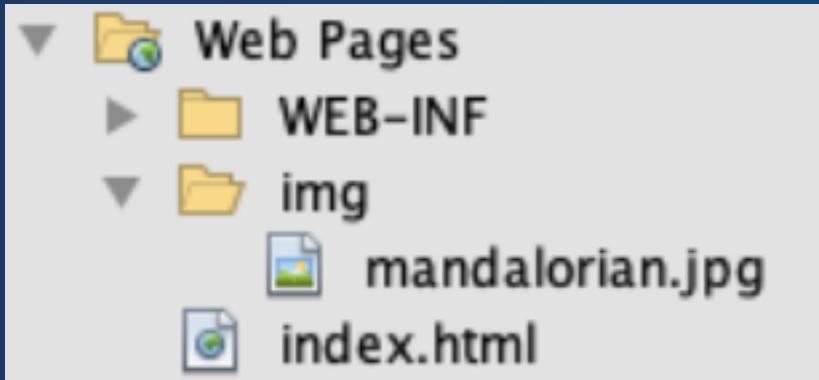
■ Imágenes



```
<h1>Breaking Bad</h1>
```

```

```



```
<h1>Mandaloriano</h1>
```

```

```

■ Imágenes [size]



```
<h1>Breaking Bad</h1>

```



```
<h1>Breaking Bad</h1>

```

Hipervínculos



```
<h1>Links</h1>
<a href="https://www.google.cl">Google</a> <br/>
<a href="pages/about.html">Acerca de</a> <br/>
<a href="https://www.instagram.com/googlefordevs" target="_blank">Síguenos</a>
```

Links

[Google](#)

[Acerca de](#)

[Síguenos](#)

Items



```
<h1>Viñetas</h1>
Frutas
<ul>
  <li>Pera</li>
  <li>Manzana</li>
  <li>Uva</li>
</ul>

Colores
<ol>
  <li>Red</li>
  <li>Yellow</li>
  <li>White</li>
  <li>Brown</li>
</ol>
```

Viñetas

Frutas

- Pera
- Manzana
- Uva

Colores

1. Red
2. Yellow
3. White
4. Brown

Tablas

```
● ● ●  


# Tablas



| Fruta   | Precio |
|---------|--------|
| Manzana | \$500  |
| Manzana | \$500  |


```

Tablas

Fruta	Precio
Manzana	\$500
Manzana	\$500

■ Tablas



```
<h1>Tablas</h1>


| Fruta      | Precio |
|------------|--------|
| Manzana    | \$500  |
| Pera       | \$200  |
| Talca 2021 |        |


```

Tablas

Fruta	Precio
Manzana	\$500
Pera	\$200
Talca 2021	

Ejercicio

Caterpie



Para protegerse, despidé un hedor horrible por las antenas con el que repele a sus enemigos.

Tipo	Debilidad	Altura	Peso	Categoría	Habilidad
Bicho	<ul style="list-style-type: none">FuegoVoladorRoca	0,3 m	2,9 kg	Gusano	Polvo de Escudo

Evoluciones

Caterpie	Metapod	Butterfree
An illustration of Caterpie, showing its green body with yellow spots and red antennae.	An illustration of Metapod, showing its green, segmented, and somewhat rounded body.	An illustration of Butterfree, showing its white wings with blue patterns and a purple body.

Formularios

- Son uno de los principales puntos de interacción entre un usuario y una aplicación Web
- Permiten a los usuarios ingresar datos que generalmente se envían a un servidor Web para su procesamiento

Pizza Shop 2.0	
Name	<input type="text"/>
Pizza Topping	<input checked="" type="radio"/> Supreme <input type="radio"/> Vegetarian <input type="radio"/> Hawaiian
Pizza Sauce	<input type="button" value="Tomato"/>
Optional Extras	<input type="checkbox"/> Extra Cheese <input type="checkbox"/> Gluten Free Base
Delivery Instructions:	
<input type="button" value="Send my Order"/>	

Tag form

- Contiene a los controles con los datos que se van a procesar
- Posee 2 atributos, action y method
- Action representa la url hacia donde viajan los datos del formulario
- Method representa como viajan los datos (GET, POST, PUT, DELETE)

```
● ● ●  
  
<form action="control.do" method="Post">  
    <!-- controles o widgets -->  
</form>
```

Tag input

- Etiqueta para representar los siguientes controles o widgets
 - Campos de textos
 - Campo de contraseñas
 - Campo oculto
 - Cajas de checkbox
 - Cajas de radio
 - Botones

Tag input text, password, hidden

- Algunos atributosopcionales son
 - Readonly, Value, required

```
<form action="control.do" method="post">
    username<br/>
    <input type="text" name="user" placeholder="your username"/>
    password<br/>
    <input type="password" name="pass" placeholder="your pass"/><br/>
    <button type="submit">send</button>
    <input type="hidden" name="hidden-text" value="2024"/>
</form>
```

Tag label



```
<form action="control.do" method="post">
    <label for="user">
        <span>username</span>
        <input id="user" type="text" name="user" placeholder="your username"/>
    </label>
    <br/>
    <label for="pass">
        <span>password</span>
        <input id="pass" type="password" name="pass" placeholder="your pass"/><br/>
    </label>
    <br/>

    <button type="submit">send</button>
    <input type="hidden" name="hidden-text" value="2024"/>
</form>
```

Etiqueta input checkbox

- Checkbox permite seleccionar varias opciones mientras que radio permite seleccionar solo una opción
 - checked: permite marcar una casilla por defecto



```
<form action="control.do" method="Post">
    Artistas Favoritos <br>
    <input type="checkbox" name="txt4" value="Linkin Park"/>LINKIN PARK
    <input type="checkbox" name="txt4" value="Daft Punk"/>DAFT PUNK
    <input type="checkbox" name="txt4" value="Metallica"/>METALLICA
</form>
```



```
<form action="control.do" method="Post">
    Estado Civil <br>
    <input type="checkbox" name="txt5" value="Soltero" checked/>Soltero
    <input type="checkbox" name="txt5" value="Casado"/>Casado
</form>
```

Tag select

- Representa una lista de opciones
- Cada opción se representa con el tag option que posee atributos opcionales como value y selected



```
<form action="control.do" method="Post">
Ciudad<br>
<select name="txt6">
<option value="">Seleccione una ciudad</option>
<option>Talca</option>
<option>Linares</option>
<option>Cauquenes</option>
</select>
</form>
```

Tag textarea

- Utilizado cuando se debe ingresar un texto muy extenso
- Atributosopcionales: rows, cols

```
● ● ●

<form action="control.do" method="Post">
    Tu opinión<br>
    <textarea name="txt7">

        </textarea>
    </form>
```

Tag button

- Atributos opcionales, type, value



```
<form action="control.do" method="Post">
  <button name="bt">Aceptar</button>
</form>
```

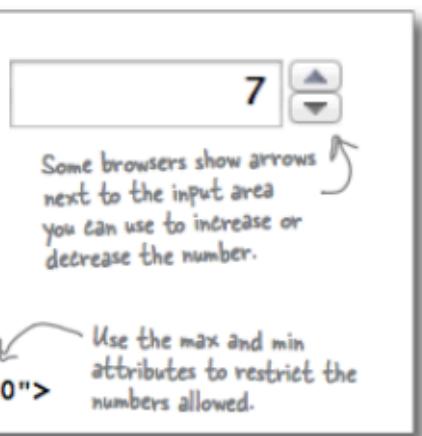
Revisar

number input

The number `<input>` element restricts input to numbers. You can even specify a min and max number that is allowed with optional attributes.

The "number" type means you're expecting a number only, not text.

```
<input type="number" min="0" max="20">
```



Some browsers show arrows next to the input area you can use to increase or decrease the number.

Use the max and min attributes to restrict the numbers allowed.

range input

The range `<input>` element is similar to number except that it displays a slider instead of an input box.

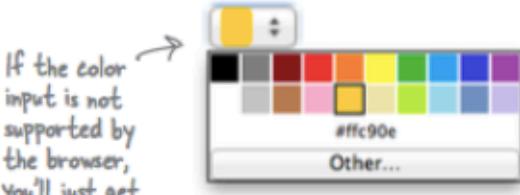
```
<input type="range" min="0" max="20" step="5">
```



Both number and range have an optional step attribute you can use to specify the number of intervals for the values.

color input

Use the color `<input>` to specify a color. When you click on the control, a color picker pops up that allows you to select a color rather than having to type in the color name or value.



If the color input is not supported by the browser, you'll just get a regular text input instead.

```
<input type="color">
```

date input

Use the date `<input>` element to specify a date, with a date picker control. The control creates a valid date format string to send to the server script.

```
<input type="date">
```

Like with color, if the date input isn't supported by the browser yet, you'll get a regular text input instead.



email input

The email `<input>` element is just a text input, but on some mobile browsers, you'll get a custom keyboard for email when you start typing.

```
<input type="email">
```

Email: Buckaroo Banzai

tel input

The tel `<input>` element is also just a text input, but like email, causes a custom keyboard to pop up on mobile devices.

```
<input type="tel">
```

Phone: 555-1212

Ejercicio

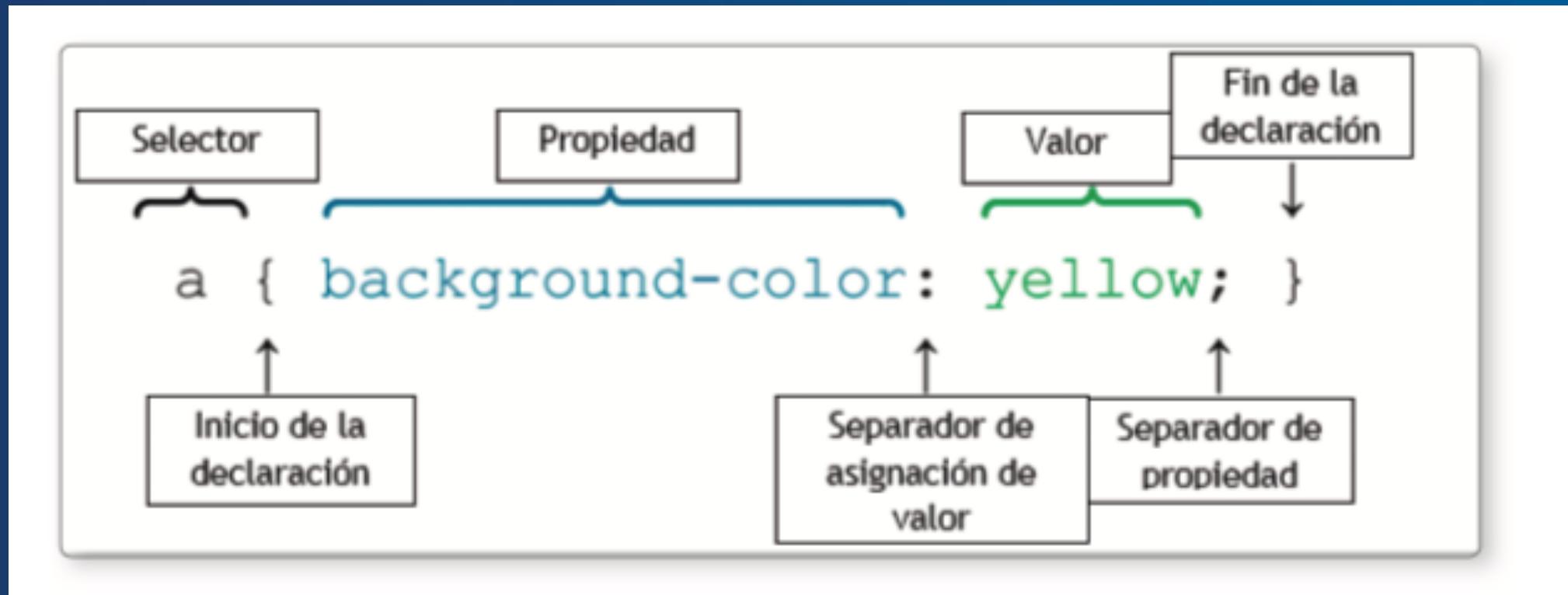
Pizza Shop 2.0	
Name	<input type="text"/>
Pizza Topping	<input checked="" type="radio"/> Supreme <input type="radio"/> Vegetarian <input type="radio"/> Hawaiian
Pizza Sauce	Tomato ▾
Optional Extras	<input type="checkbox"/> Extra Cheese <input type="checkbox"/> Gluten Free Base
Delivery Instructions: 	
Send my Order	



CSS

- Cascading Styled Sheet es utilizada para mejorar la apariencia de un documento HTML
- Se aplican a los tags por medio de selector, class o id

Sintaxis



Como se utiliza



```
p{  
    color:blue;  
    font-family: arial;  
    font-size: 14px;  
}  
.red-text{  
    color: red;  
}
```

Propiedad font

```
body {  
    font-family: arial;  
    font-size: 18px;  
}
```

```
a {  
    font-weight: bold;  
}
```

Propiedad background

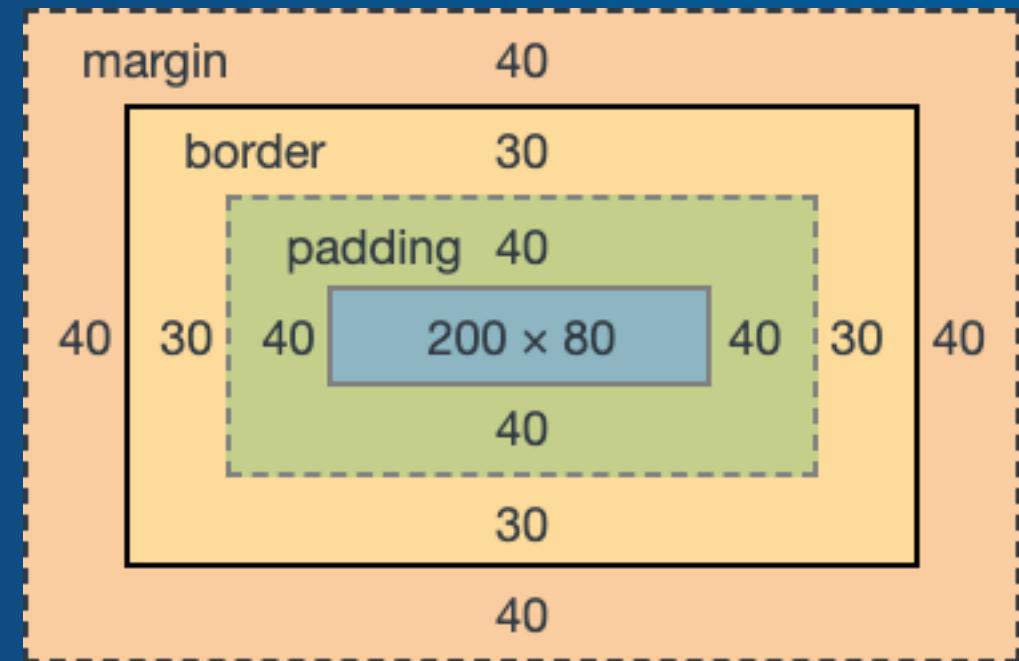
```
body {  
    font-family: arial;  
    font-size: 18px;  
    background: linear-gradient(to left, #ffeb3b, #fff59d);  
}
```

■ Propiedad para textos

```
a {  
    text-decoration: none;  
    font-weight: bold;  
    color: #03a9f4;  
}  
  
h1,h2 {  
    text-shadow: 3px 3px 8px grey;  
    text-align: justify;  
}
```

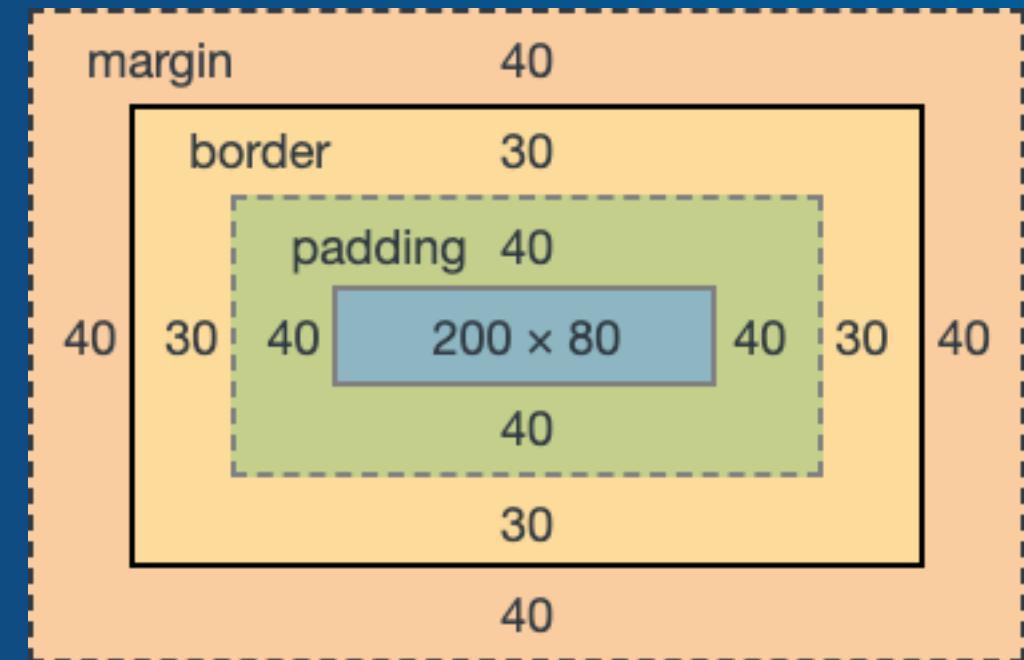
Propiedad para bordes

- border
- border-left
- border-right
- border-top
- border-bottom
- border-radius



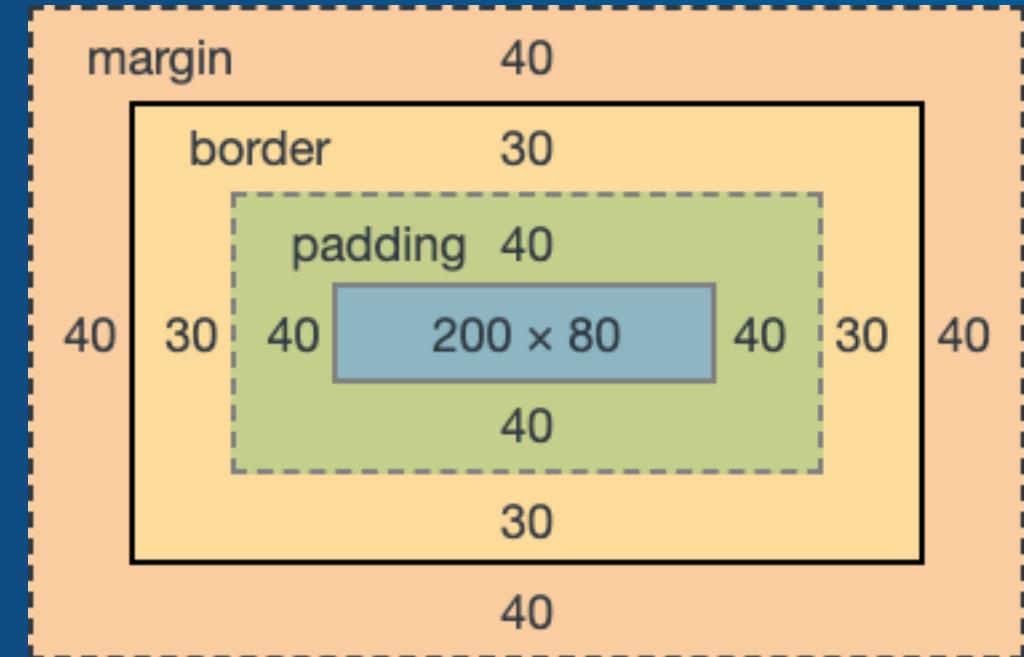
Propiedad para márgenes

- margin
- margin-left
- margin-right
- margin-top
- margin-bottom



Propiedad para rellenos

- padding
- padding-left
- padding-right
- padding-top
- padding-bottom



Variables

```
● ● ●

:root{
    /* Primary */
    --Paleblue: hsl(225, 100%, 94%);
    --Brightblue: hsl(245, 75%, 52%);

    /* Neutral */
    --Verypaleblue: hsl(225, 100%, 98%);
    --Desaturatedblue: hsl(224, 23%, 55%);
    --Darkblue: hsl(223, 47%, 23%);

    font-size: 16px;
    font-family: 'Red Hat Display', sans-serif;
}

p{
    background: var(--Paleblue)
}
```

Tips

- Cajas

```
.caja{  
    height: 300px;  
    width: 600px;  
    box-shadow: 3px 3px 15px black;  
}
```

```
<div class="caja">  
  
</div>
```

- Imagen dentro de una caja

```
img {  
    height: 100%;  
    width: 100%;  
    object-fit: cover;  
}
```

Tips

- Estilo de botón a tag <a>



```
.boton{  
    text-decoration: none;  
    background-color: green;  
    padding: 2px 8px;  
    cursor:pointer;  
    color:white;  
    box-shadow: 3px 3px 15px grey;  
}
```

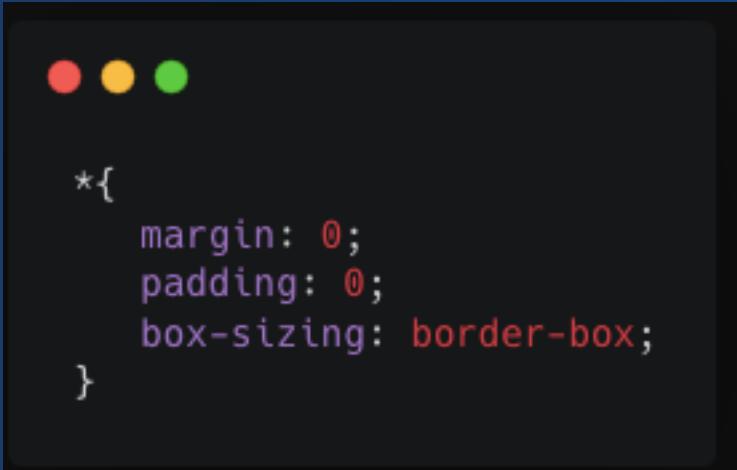


```
<a class="boton" href="#">aceptar</a>
```



Tips

- Box-sizing



```
*{  
  margin: 0;  
  padding: 0;  
  box-sizing: border-box;  
}
```

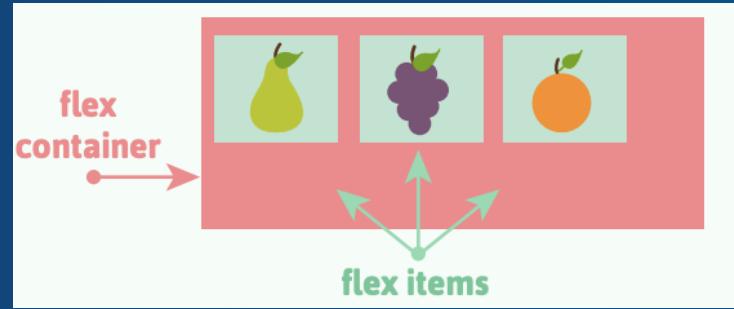
Layout flex

- Por defecto se alinean de manera horizontal, en caso de querer configurar la orientación vertical se debe especificar la propiedad flex-direction

```
display: flex;  
flex-direction: row;
```

```
display: flex;  
flex-direction: column;
```

Layout flex

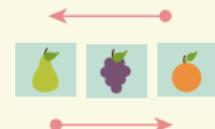


rows

`flex-direction: row; on container`

OR

`flex-direction: row-reverse; on container`

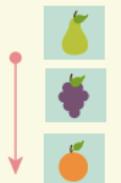


columns

`flex-direction: column; on container`

OR

`flex-direction: column-reverse; on container`



Layout flex direction row

justify-content: flex-start; on **container**



justify-content: flex-end; on **container**



justify-content: center; on **container**



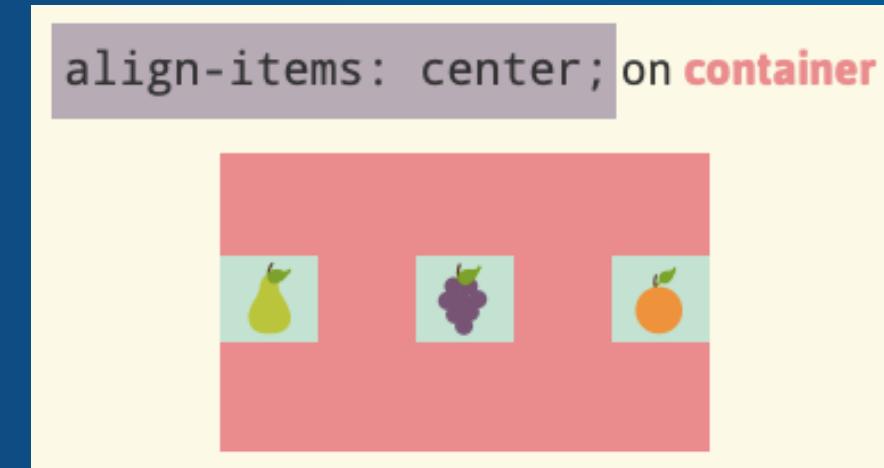
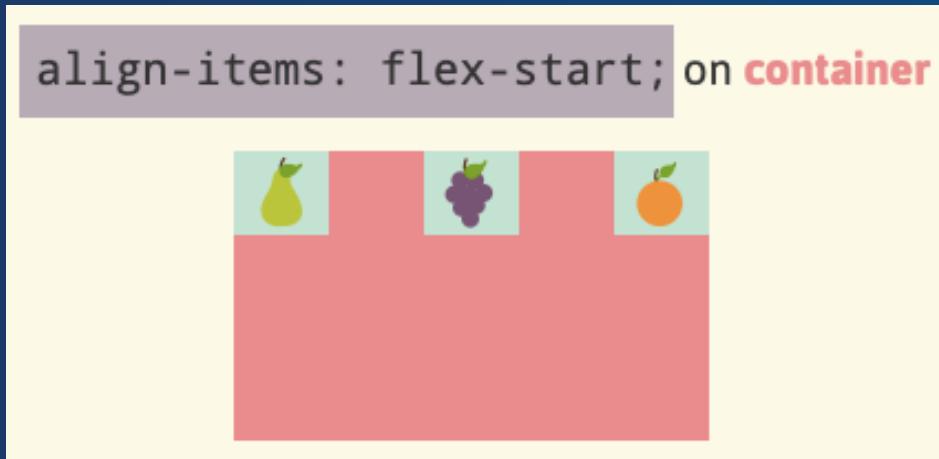
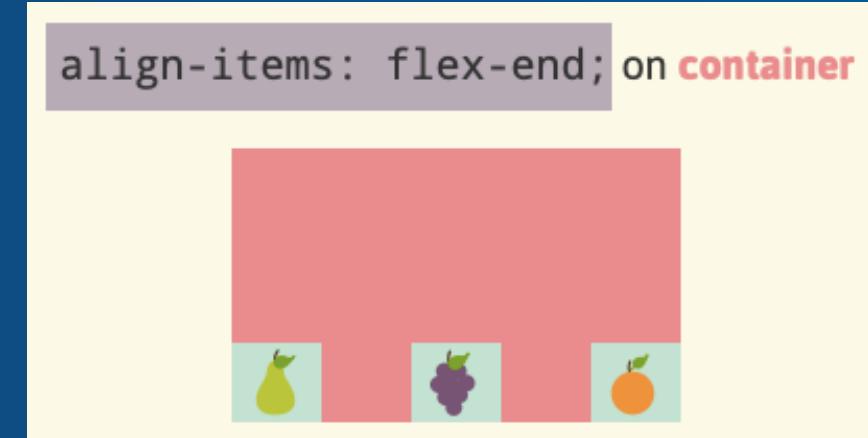
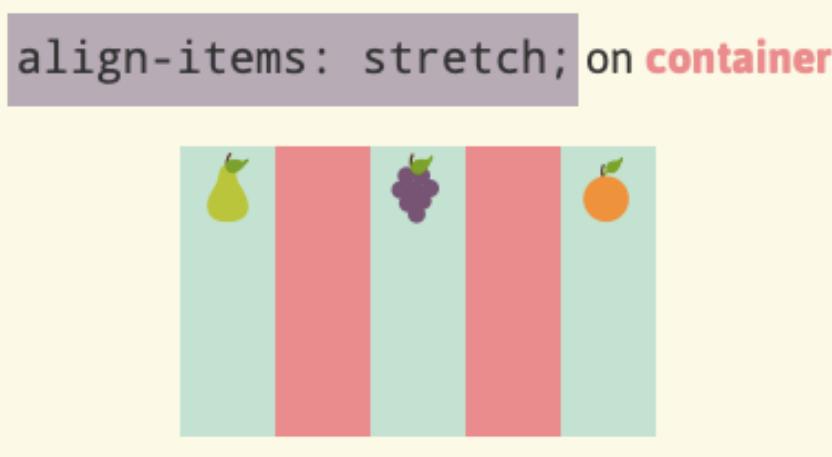
justify-content: space-between; on **container**



justify-content: space-around; on **container**



Layout flex direction row



Ejercicio

The screenshot shows a mobile application interface for a JavaScript challenge. At the top, there's a header with the 'jsstartup' logo and a three-dot menu icon. Below the header, a purple banner displays '#82' and the title 'JavaScript Challenge' in large white font, with the subtitle 'Accept or Reject - Choice is Yours' underneath. A yellow circular 'JS STARTUP' badge is positioned in the top right corner. The main content area contains a question: 'What will be the output of code below ?'. Below the question is a block of JavaScript code:

```
let object = {  
    name : "JS Startup",  
    work : "JavaScript"  
};  
let result = Object.entries(object);  
  
console.log(result[0][1]); // output = 🎉 ?
```

At the bottom of the code block, there are four options with corresponding emojis:

- "JS Startup" (blue thumbs-up emoji)
- "name" (red heart emoji)
- "JavaScript" (yellow face emoji)
- "Nested array access..." (grinning face emoji)

The footer of the card includes social media links for Facebook, Instagram, and the website 'isestartup.com', along with standard sharing icons (heart, comment, share) and a bookmark icon.