

# Web Development

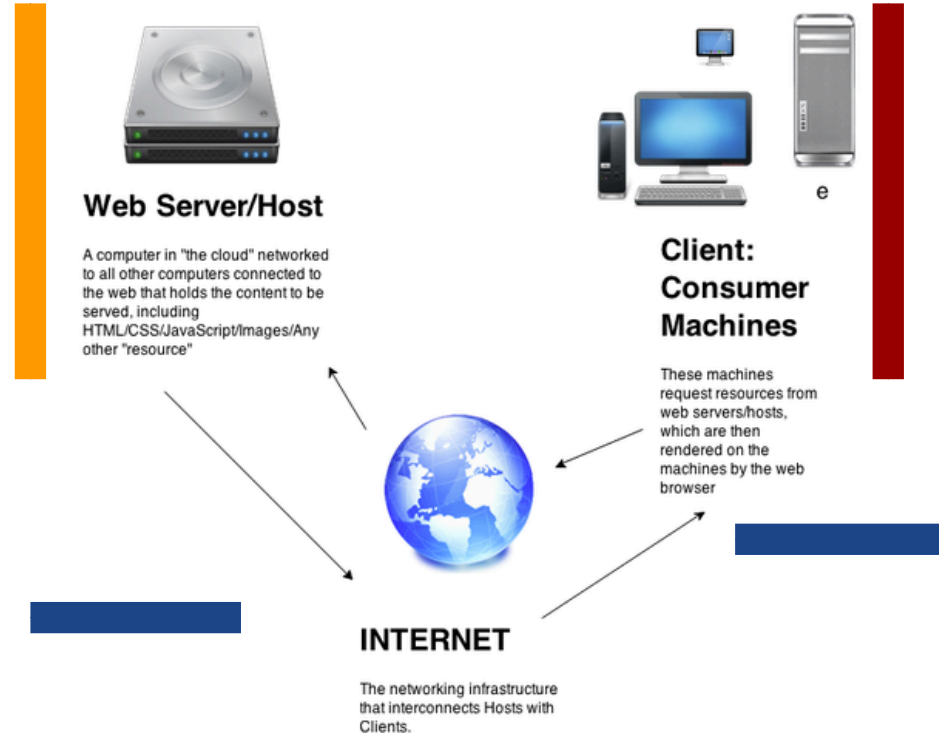
basics

## **Learning Objectives**

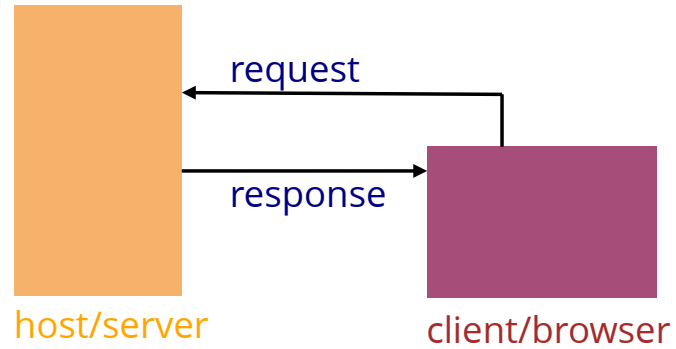
- Understand how web pages are served to the user
- Be able to name different parts of a website
- Build a basic HTML page

# how the web works

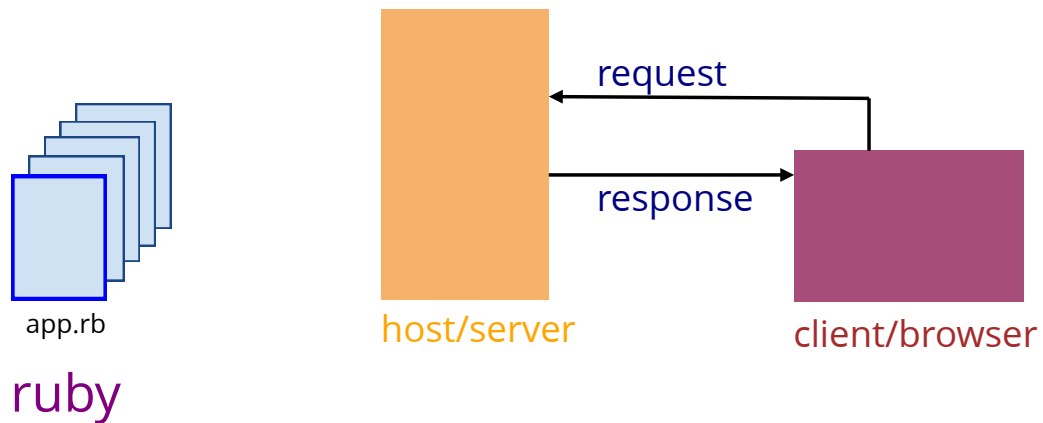
host  
server  
backend  
client  
browser  
frontend  
request  
response



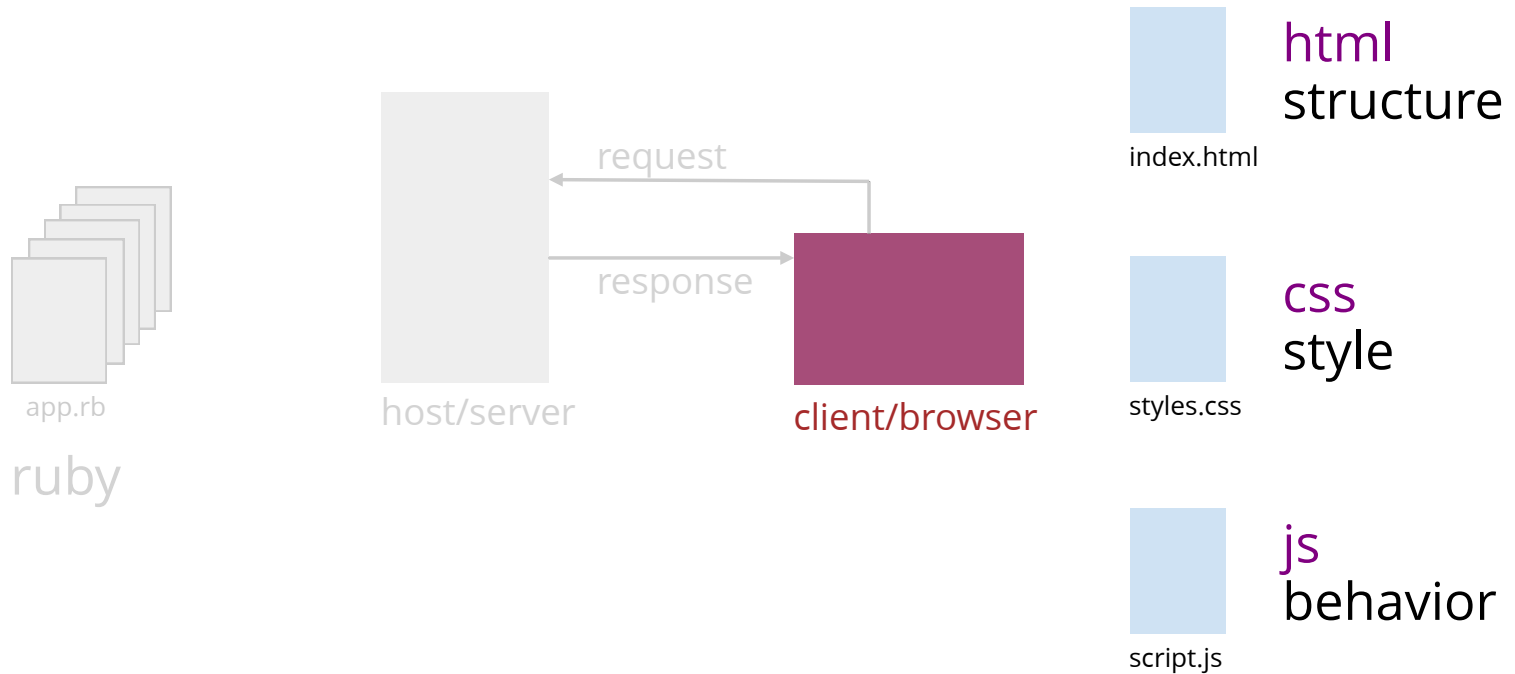
# how the web works



# how the web works



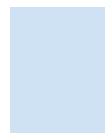
# how the web works



# frontend

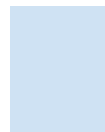
## starters (templates)

- Slack channel
- duplicate folder
- directory structure
  - exercises
  - workshops
  - homework
  - projects
- starter modifications (added functions)



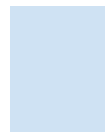
html  
structure

index.html



css  
style

styles.css



js  
behavior

script.js

# frontend

## html -- hypertext markup language

- defines the structure of a web page
- **tags** -- text symbols that define elements

**<p></p>**

**<p>**text inside paragraph tag**</p>**

**<div>**div tags are highly versatile**</div>**

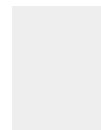


client/browser



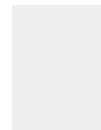
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

# frontend

## html -- hypertext markup language

- defines the structure of a web page
- tags -- text symbols that define elements
  - `<p></p>`
  - `<p>text inside paragraph tag</p>`
  - `<div>div tags are highly versatile</div>`
- tag **attribute** -- modifies tag characteristics
  - `<a href="profile.html">Profile Page</a>`

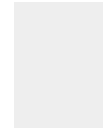


client/browser



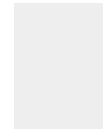
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior



# frontend

## html -- hypertext markup language

- defines the structure of a web page
- tags -- text symbols that define elements
  - `<p></p>`
  - `<p>text inside paragraph tag</p>`
  - `<div>div tags are highly versatile</div>`
- tag attribute -- modifies tag characteristics
  - `<a href="profile.html">Profile Page</a>`
- **text** -- between tags, appears on page
  - `<a href="profile.html">Profile Page</a>`

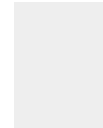


client/browser



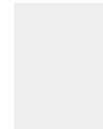
index.html

html  
structure



styles.css

css  
style



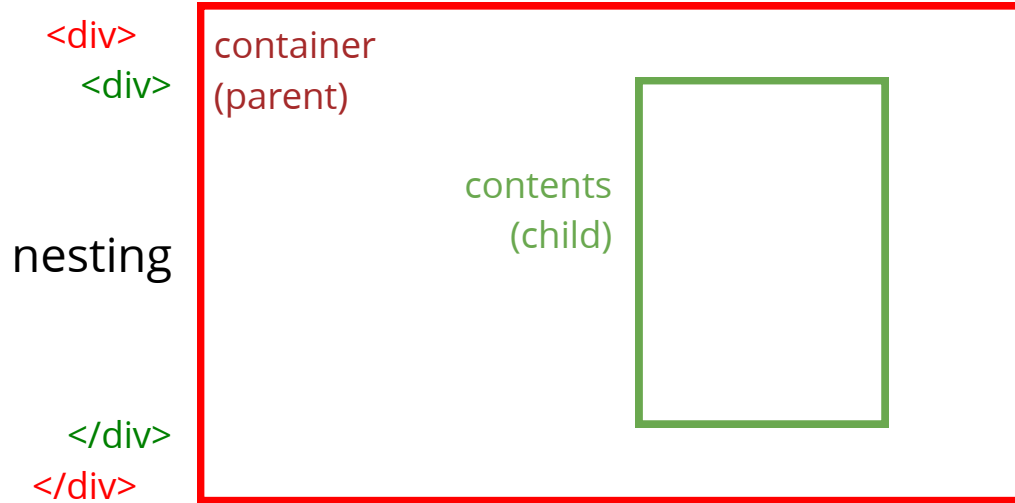
script.js

js  
behavior

frontend

## html -- hypertext markup language

- defines the **structure** of a web page

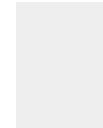


client/browser



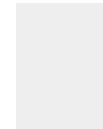
index.html

html  
structure



styles.css

css  
style



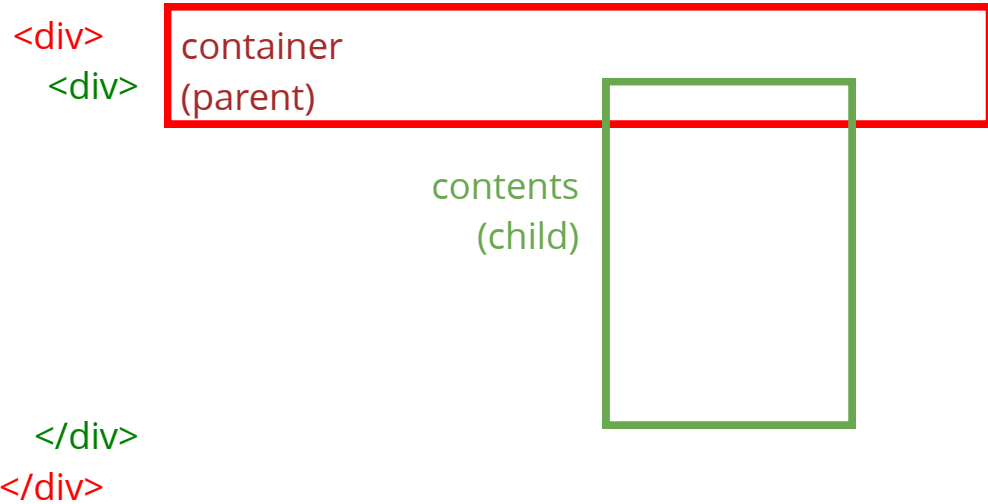
script.js

js  
behavior

frontend

## html -- hypertext markup language

- defines the **structure** of a web page



- structure is **hierarchical** and **sequential** rather than "physical" or "positional"

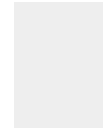


client/browser



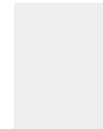
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

frontend

## html -- hypertext markup language

- defines the **structure** of a web page

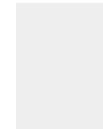


client/browser



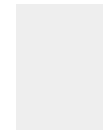
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

# html -- code

head tags

div tags

```
<!doctype html>
<html lang="en">
  <!-- ===== head ===== -->
  <head>
    <meta charset="utf-8">
    <title>starters</title>
    <link rel="stylesheet" type="text/css" href="styles.css" />
  </head>

  <!-- ===== body ===== -->
  <body>

    <!-- == header == -->
    <div id="header" class="section">
      <p>header</p>
    </div>

    <!-- == content == -->
    <div id="content" class="section">
      <div id="content-box" class="section">
        <p>Content Title</p>
        <div>Content Title</div>
      </div>
    </div>
  </div>
```

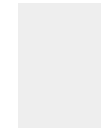


client/browser



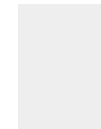
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

# html -- code

head tags

div tags

```
<!doctype html>
<html lang="en">
  <!-- ===== head ===== -->
  <head>
    <meta charset="utf-8">
    <title>starters</title>
    <link rel="stylesheet" type="text/css" href="styles.css" />
  </head>

  <!-- ===== body ===== -->
  <body>

    <!-- == header == -->
    <div id="header" class="section">
      <p>header</p>
    </div>

    <!-- == content == -->
    <div id="content" class="section">
      <div id="content-box" class="section">
        <p>Content Title</p>
        <div>Content Title</div>
      </div>
    </div>
  </body>
</html>
```

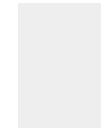


client/browser



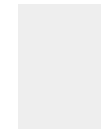
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

# html -- code

```
<!doctype html>
<html lang="en">
  <!-- ===== head ===== -->
  <head>
    <meta charset="utf-8">
    <title>starters</title>
    <link rel="stylesheet" type="text/css" href="styles.css" />
  </head>

  <!-- ===== body ===== -->
  <body>

    <!-- == header == -->
    <div id="header" class="section">
      <p>header</p>
    </div>

    <!-- == content == -->
    <div id="content" class="section">
      <div id="content-box" class="section">
        <p>Content Title</p>
        <div>Content Title</div>
      </div>
    </div>
  </body>
</html>
```

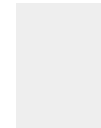


client/browser



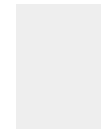
html  
structure

index.html



css  
style

styles.css



js  
behavior

script.js

# html -- code

```
<!doctype html>
<html lang="en">
  <!-- ===== head ===== -->
  <head>
    <meta charset="utf-8">
    <title>starters</title>
    <link rel="stylesheet" type="text/css" href="styles.css" />
  </head>
  <!-- ===== body ===== -->
  <body>

    <!-- == header == -->
    <div id="header" class="section">
      <p>header</p>
    </div>

    <!-- == content == -->
    <div id="content" class="section">
      <div id="content-box" class="section">
        <p>Content Title</p>
        <div>Content Title</div>
      </div>
    </div>
  </body>
</html>
```

id attribute -- identifies unique element

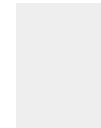


client/browser



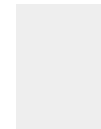
html  
structure

index.html



css  
style

styles.css



js  
behavior

script.js



# html -- code

```
<!doctype html>
<html lang="en">
  <!-- ===== head ===== -->
  <head>
    <meta charset="utf-8">
    <title>starters</title>
    <link rel="stylesheet" type="text/css" href="styles.css" />
  </head>
  <!-- ===== body ===== -->
  <!-- == header == -->
  <div id="header" class="section">
    <p>header</p>
  </div>

  <!-- == content == -->
  <div id="content" class="section">
    <div id="content-box" class="section">
      <p>Content Title</p>
      <div>Content Title</div>
    </div>
  </div>
```

**class** attribute -- identifies many elements  
in the same group

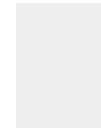


client/browser



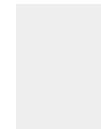
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

# html -- code

```
<!doctype html>
<html lang="en">
  <!-- ===== head ===== -->
  <head>
    <meta charset="utf-8">
    <title>starters</title>
    <link rel="stylesheet" type="text/css" href="styles.css" />
  </head>
  <!-- ===== body ===== -->
  <body>
    <!-- == header == -->
    <div id="header" class="section">
      <p>header</p>
    </div>

    <!-- == content == -->
    <div id="content" class="section">
      <div id="content-box" class="section">
        <p>Content Title</p>
        <div>Content Title</div>
      </div>
    </div>
  </body>
</html>
```

**class** attribute -- identifies many elements  
in the same group

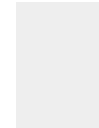


client/browser



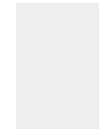
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

# html -- code

```
<!doctype html>
<html lang="en">
  <!-- ===== head ===== -->
  <head>
    <meta charset="utf-8">
    <title>starters</title>
    <link rel="stylesheet" type="text/css" href="styles.css" />
  </head>
  <!-- ===== body ===== -->
  <body>
    <!-- == header == -->
    <div id="header" class="section">
      <p>header</p>
    </div>
    <!-- == content == -->
    <div id="content" class="section">
      <div id="content-box" class="section">
        <p>Content Title</p>
        <div>Content Title</div>
      </div>
    </div>
  </body>
```

comment

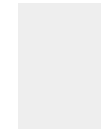


client/browser



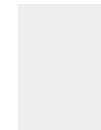
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

# bad code

```
<!doctype html>
<html lang="en">
<head>
<meta charset="utf-8">
<title>starters</title>
<link rel="stylesheet" type="text/css" href="styles.css">
</head>
<body>
<div id="header" class="section">
<p>header</p>
</div>
<div id="topic" class="section">
<p>topic</p>
<div id="container" class="section">
<p>container</p>
</div>
</div>
<div id="footer" class="section">
<p>footer</p>
</div>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.3/jq
<script type="text/javascript" src="script.js"></script>
</body>
</html>
```

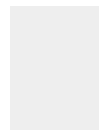


client/browser



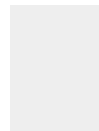
html  
structure

index.html



css  
style

styles.css



js  
behavior

script.js

# improved code -- indentation

```
<!doctype html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <title>starters</title>
  <link rel="stylesheet" type="text/css" href="styles.css">
</head>
<body>
  <div id="header" class="section">
    <p>header</p>
  </div>
  <div id="topic" class="section">
    <p>topic</p>
  <div id="container" class="section">
    <p>container</p>
  </div>
  <div id="footer" class="section">
    <p>footer</p>
  </div>
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.3/">
  <script type="text/javascript" src="script.js"></script>
</body>
</html>
```

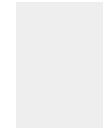


client/browser



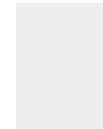
html  
structure

index.html



css  
style

styles.css



js  
behavior

script.js

# improved code -- indentation

```
<!doctype html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <title>starters</title>
  <link rel="stylesheet" type="text/css" href="styles.css">
</head>
<body>
  <div id="header" class="section">
    <p>header</p>
  </div>
  <div id="topic" class="section">
    <p>topic</p>
    <div id="container" class="section">
      <p>container</p>
    </div>
  </div>
  <div id="footer" class="section">
    <p>footer</p>
  </div>
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.3/">
  <script type="text/javascript" src="script.js"></script>
</body>
</html>
```

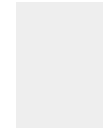


client/browser



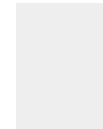
html  
structure

index.html



css  
style

styles.css



js  
behavior

script.js

## improved code -- line spacing

```
<!doctype html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <title>starters</title>
  <link rel="stylesheet" type="text/css" href="styles.css">
</head>

<body>
  <div id="header" class="section">
    <p>header</p>
  </div>

  <div id="topic" class="section">
    <p>topic</p>
    <div id="container" class="section">
      <p>container</p>
    </div>
  </div>

  <div id="footer" class="section">
    <p>footer</p>
  </div>

  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.3/"
  <script type="text/javascript" src="script.js"></script>
```

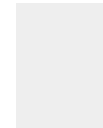


client/browser



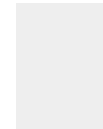
html  
structure

index.html



css  
style

styles.css



js  
behavior

script.js

# improved code -- comments

```
<!doctype html>
<html lang="en">
<!-- ===== head ===== -->
<head>
  <meta charset="utf-8">
  <title>starters</title>
  <link rel="stylesheet" type="text/css" href="styles.css">
</head>

<!-- ===== body ===== -->
<body>
  <!-- ===== header ===== -->
  <div id="header" class="section">
    <p>header</p>
  </div>

  <!-- ===== topic ===== -->
  <div id="topic" class="section">
    <p>topic</p>
    <div id="container" class="section">
      <p>container</p>
    </div>
  </div>

  <div id="footer" class="section">
    <p>footer</p>
  </div>
</body>
</html>
```

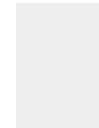


client/browser



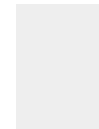
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior



## bad code -- inappropriate nesting

```
<div id="header" class="section">  
  <p>header  
  </div>  
</p>
```

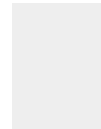


client/browser



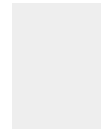
index.html

html  
structure



styles.css

css  
style

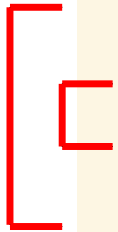


script.js

js  
behavior

## improved code -- correct nesting

```
<div id="header" class="section">  
  <p>header  
  </p>  
</div>
```



# element

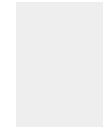


client/browser



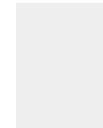
html  
structure

index.html



css  
style

styles.css



js  
behavior

script.js

# anatomy of a web page

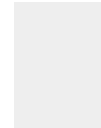


client/browser



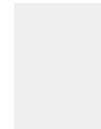
html  
structure

index.html



css  
style

styles.css



js  
behavior

script.js

# anatomy of a web page

```
<!doctype html>
```

## doctype

- identifies HTML version

```
<head>
```

## head

- loaded first
- not visible to user

```
</head>
```

```
<body>
```

## body

- page content

```
</html>
```

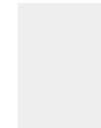


client/browser



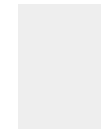
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

# anatomy of a web page

## sections

### head

- encloses links to external files  
e.g. css files (style.css)
- meta tags  
descriptive info  
search engine optimization

### body

- contains everything visible on the screen

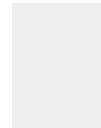


client/browser



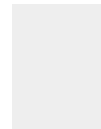
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

# Your turn!!!

- outline container structure of website
- consider parent/child relationships
  - container / content

<http://www.slate.com/>

<http://www.theonion.com/>

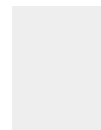


client/browser



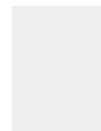
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

## tags

<div> -- div tag

- highly versatile tag
- used for containers, backgrounds, buttons, menus, grid systems (rows/columns), etc.

## example

```
<div id="main-menu">  
  <div id="home" class="menu-item">home</div>  
  <div id="profile" class="menu-item">profile</div>  
  <div id="portfolio" class="menu-item">portfolio</div>  
</div>
```

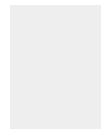


client/browser



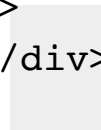
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

## tags

### div

- used as menu container

<div> -- div tag

- highly versatile tag
- used for containers, backgrounds, buttons, menus, grid systems (rows/columns), etc.

### example

```
<div id="main-menu">
```

```
  <div id="home" class="menu-item">home</div>
```

```
  <div id="profile" class="menu-item">profile</div>
```

```
  <div id="portfolio" class="menu-item">portfolio</div>
```

```
</div>
```

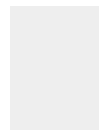


client/browser



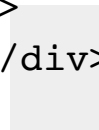
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior



## tags

`<div>` -- div tag

- highly versatile tag
- used for containers, backgrounds, buttons, menus, grid systems (rows/columns), etc.

## example

```
<div id="main-menu">  
  <div id="home" class="menu-item">home</div>  
  <div id="profile" class="menu-item">profile</div>  
  <div id="portfolio" class="menu-item">portfolio</div>  
</div>
```

divs

- used as menu buttons

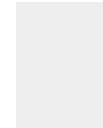


client/browser



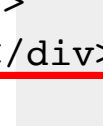
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

## tags

`<p>` -- paragraph tag

- enclose blocks of text
- default display property spans whole page
- default **16 pixel margin** on top and bottom

## example

```
<p>
  Located in the posterior hypothalamus near
  the wall of the third ventricle is an area
  called the primary motor center for shivering.
  This area is normally inhibited by signals from
  the heat center in the anterior hypothalamic-
  preoptic area but is excited by cold signals
  from the skin and spinal cord.
</p>
```

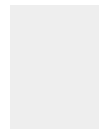


client/browser



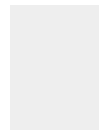
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

## tags

`<span>` -- span tag

- used for inline text highlights
- do not have margin properties

## example

```
<p>
  Located in the posterior hypothalamus near the wall of
  the <span>third ventricle</span> is an area called the
  <span>primary motor center</span> for shivering. This
  area is normally inhibited by signals from the heat center
  in the <span>anterior hypothalamic-preoptic</span> area
  but is excited by cold signals from the skin and spinal cord.
</p>
```

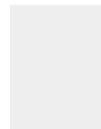


client/browser



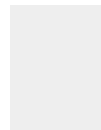
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

## tags

`<span>` -- span tag

- used for inline text highlights
- do not have margin properties

example -- resulting text changes

Located in the posterior hypothalamus near the wall of the **third ventricle** is an area called the **primary motor center** for shivering. This area is normally inhibited by signals from the heat center in the **anterior hypothalamic-preoptic** area but is excited by cold signals from the skin and spinal cord.

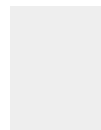


client/browser



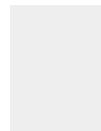
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

## tags

`<h1>...<h6>` -- heading tags

- styles text for headings
- h1 -- largest, h6 -- smallest

## examples

```
<h1>Local Man Wins Potato Throwing Contest</h1>  
<h4>This is a subtitle, it is more minor</h4>
```

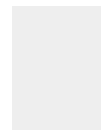


client/browser



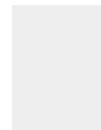
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

## tags

`<a>` -- anchor (link) tag

- links to other pages and page sections
- requires href attribute (web address)
- target attribute -- value of `_blank` opens the link in a new tab

new page in same window

```
<a href="http://google.com">Google</a>
```

new page in new tab

```
<a href="http://google.com" target="_blank">Google</a>
```

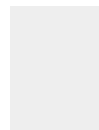


client/browser



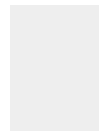
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

## tags

`<img>` -- image tag

- places images on page
- src (source) attribute -- sets the url of the image
- single tag (no closing tag)

example -- local file

```

```

example -- remote file (via internet)

```

```

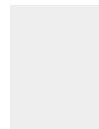


client/browser



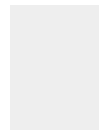
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

# Your turn!!!

- open atom text editor
- navigate to WDI/exercises folder
- move **starter files** into exercises folder
- open **index.html** in atom

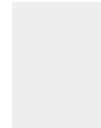


client/browser



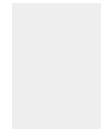
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior



# Your turn!!!

- comments
- open/close tags (except **img** tags)
- proper indentation (containers/contents)
- view results in Chrome (open **index.html** file)
- use **Emmet** to create tags with id/class:

type:           

#main-menu

<TAB key>

code:           <div id="main-menu"></div>

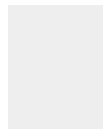


client/browser



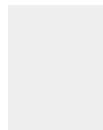
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

# Your turn!!!

- check W3schools website for tag examples

[https://www.w3schools.com/tags/ref\\_byfunc.asp](https://www.w3schools.com/tags/ref_byfunc.asp)

<div></div> <p></p> <a></a> <img>  
<h1></h1> <ul></ul> <li></li>  
<table></table> <tr></tr> <td></td>  
<span></span> <iframe></iframe>

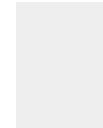


client/browser



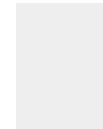
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

# paths

## relative path

- starting point is directory of **current file**

```

```

## absolute path

- starting point is **root directory** of system

```

```

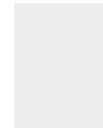


client/browser



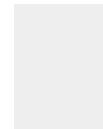
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

# paths

```
WDI
|_images
|   |_my_cat.jpg
|   |_my_dog.jpg
|_EXERCISES
|   |_starter_project
|       |_index.html
|       |_my_house.jpg
```

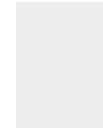


client/browser



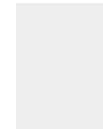
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

# paths



my\_house.jpg

```

```

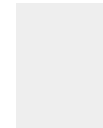


client/browser



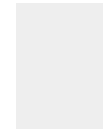
html  
structure

index.html



css  
style

styles.css



js  
behavior

script.js

# paths

```
WDI
├── _images
│   ├── my_cat.jpg
│   └── my_dog.jpg
├── _EXERCISES
│   └── starter_project
│       ├── index.html
│       └── my_house.jpg
```

my\_house.jpg  


containing folder

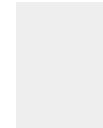


client/browser



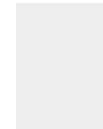
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

paths

../



client/browser

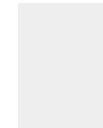


up one level  
containing folder



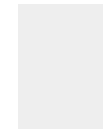
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

my\_house.jpg



paths

../..

WDI

up two levels

\_images

|\_my\_cat.jpg

|\_my\_dog.jpg

|\_EXERCISES

|\_starter\_project

|\_index.html

|\_my\_house.jpg

up one level  
containing folder

my\_house.jpg



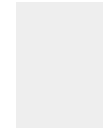


client/browser



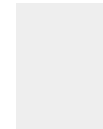
html  
structure

index.html



css  
style

styles.css



js  
behavior

script.js



paths

../../images/

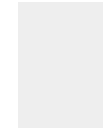


client/browser



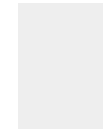
html  
structure

index.html



css  
style

styles.css



js  
behavior

script.js

my\_house.jpg



## paths

```
../../images/my_cat.jpg  

```

```
WDI  
|_ images  
|   |_ my_cat.jpg  
|   |_ my_dog.jpg  
|_ EXERCISES  
|   |_ starter_project  
|       |_ index.html  
|       |_ my_house.jpg
```

my\_house.jpg

```

```

down one level  
target file

up one level  
containing folder

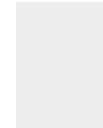


client/browser



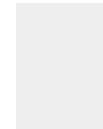
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

## tags

`<ul>` -- unordered list tag

- parent tag for list of items

`<li>` -- list item tag

- defines each item in list

## example

```
<ul>  
  <li>George Washington</li>  
  <li>Martin van Buuren</li>  
</ul>
```

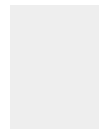


client/browser



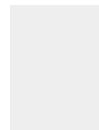
index.html

html  
structure



styles.css

css  
style



script.js

js  
behavior

# tags

**<table>** -- table tag

- creates row/column structure for data

stock	buy date	sell date	period high	period low	current price
AAPL Apple Inc	2016-05-01	---	115.57	115.57	143.7
JLL Jones Lang Lasalle Inc	2016-11-22	---	102.38	102.38	108.98
MSFT Microsoft Corp	2016-06-01	---	57.08	57.08	65.55
IBM International Busines Machines Inc	2016-03-01	---	163.53	163.53	174.5
IBM International Busines Machines Inc	2017-03-24	---	174.82	174.82	174.5

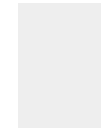


client/browser



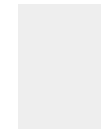
index.html

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css  
style



script.js

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behavior

## tags

**<table>** -- table tag

- creates row/column structure for data
- also used for grid displays (controversial!)

Filters			clear
School Sector	District-DCPS	Charter-PCS	Both
Grade Level	High	Middle	Elem
Boundary	Ward	DCPS HS Feeder	
Fiscal Years	PAST FY1998-2015	FUTURE FY2016-21	TOTAL FY1998-2021

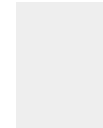


client/browser



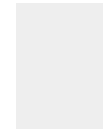
index.html

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## tags

`<table>` -- table tag

`<tr>` -- table row tag

- defines a table row

`<td>` -- table data (column) tag

- defines a column within a row

## example

```
<tr>
  <td>George Washington</td>
  <td>Martin van Buuren</td>
</tr>
<tr>
  <td>George Bush</td>
  <td>Barak Obama</td>
</tr>
```

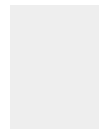


client/browser



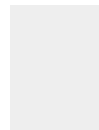
index.html

html  
structure



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behavior

## tags

`<table>` -- table tag

`<th>` -- table header tag

- defines the header for a column
- includes default "bold" text styling
- used to specify the width of a column (via css)



header text	colA	colB

header row

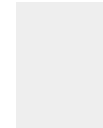


client/browser



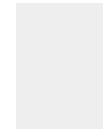
index.html

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## tags

`<table>` -- table tag

`<th>` -- table header tag

- defines the header for a column
- used to specify the width of a column (via css)

`colspan` attribute -- span multiple columns

- defined on any th or td tag

`<th colspan="2"></th>`

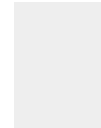



client/browser



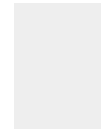
index.html

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## tags

`<table>` -- table tag

`<th>` -- table header tag

- defines the header for a column
- used to specify the width of a column (via css)

`colspan` attribute -- span multiple columns

- defined on any th or td tag


`<td colspan="3"></td>`

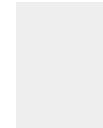


client/browser



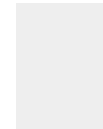
index.html

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## tags

`<table>` -- table tag

`<th>` -- table header tag

- defines the header for a column
- used to specify the width of a column (via css)

`rowspan` attribute -- span multiple rows

- defined on any td tag

`<td rowspan="3"></td>`

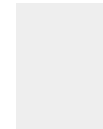



client/browser



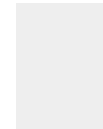
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## tags

`<iframe>` -- iframe tag

- contains another webpage inside main page
- used for embedded media widgets (Soundcloud)

## example

```
<iframe src="page.html"></iframe>
```

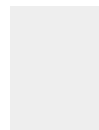


client/browser



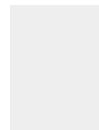
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