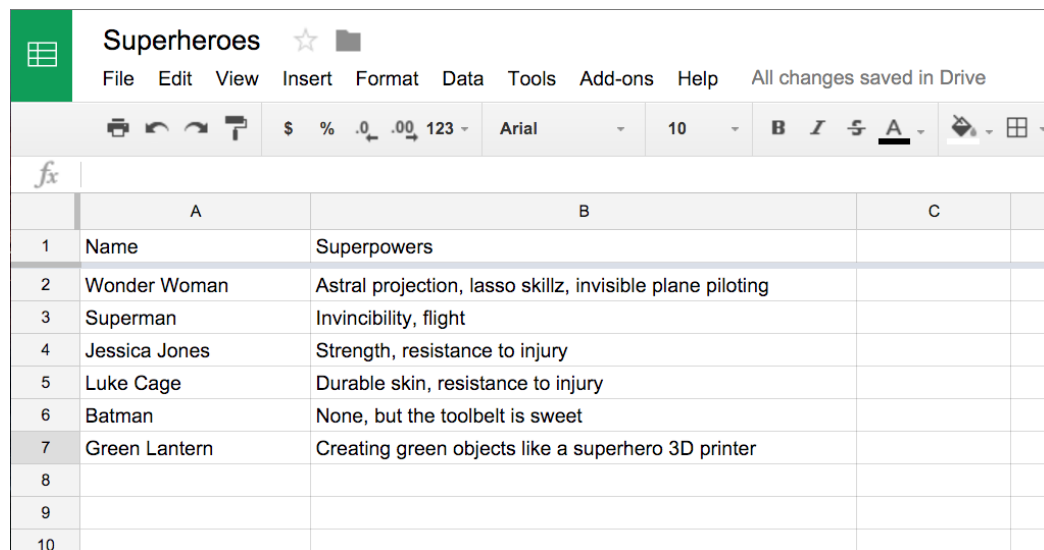# 2.3 Tables

Due Monday by 10am   **Points** 15   **Submitting** a website url

Spreadsheets are used to organize all sorts of **tabular data**, or data displayed in rows and columns.

For instance, if your job were to keep track of the world's superheroes, you might create a document like this one:

In HTML, you can display tabular data using a `table` element.

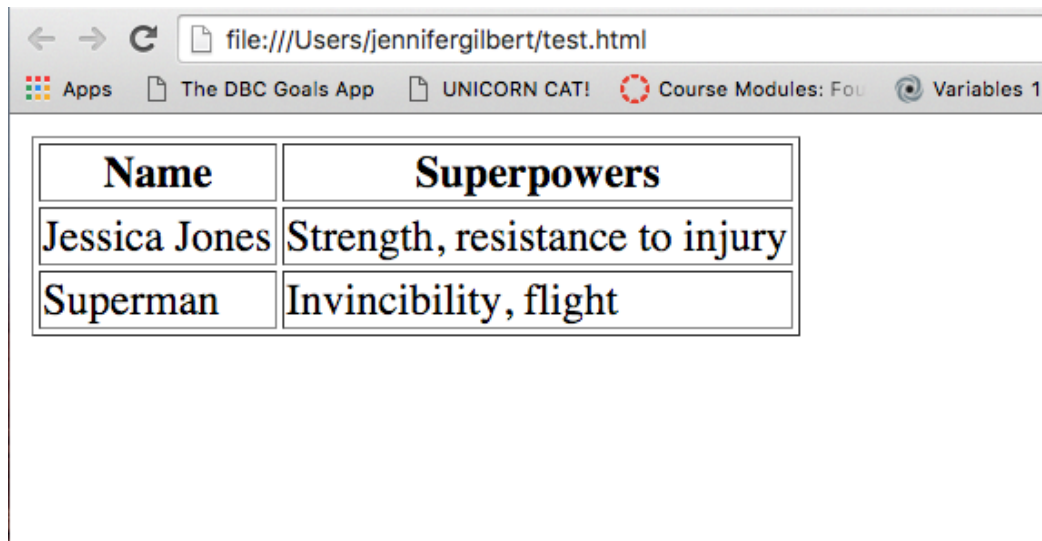# Release 0: Build a Table

A table consists of the following components:

- the table element: `<table>`
- one or more table row elements: `<tr>`
- one or more table data elements which are **children** of (nested inside of) the table row element: `<td>`
- one or more table heading elements which are (generally) only children of the first row: `<th>`

The code below:

```
<table border=1>
  <tr>
    <th>Name</th>
    <th>Superpowers</th>
  </tr>
  <tr>
    <td>Jessica Jones</td>
    <td>Strength, resistance to injury</td>
  </tr>
  <tr>
    <td>Superman</td>
    <td>Invincibility, flight</td>
  </tr>
</table>
```

creates this table:

```
file:///Users/jennifergilbert/test.html
```

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Name	**Superpowers**
Jessica Jones	Strength, resistance to injury
Superman	Invincibility, flight

The `table` element has a `border=1` attribute set on it, which adds a 1-pixel border around all cells, so you can see them.

The `th` element adds styling to its text, so it is centered and bold. It also has the semantic meaning of "table heading", so using it is good for accessibility.

To create an empty cell, you must put the code ` ` (HTML for "non-breaking space") into the cell. Otherwise, the border will not show.

DO THE THING

1. Create a new practice page in `phase-0-tracks/html` called `table-practice.html`.
2. Add the the base HTML layout (sometimes referred to as HTML **boilerplate**) with the standard elements of any HTML page:
   - `doctype`
   - `html`
   - `head`
   - `body`
   - `title`
3. Create a table with at least 3 rows, 3 columns, and any content you want.
4. Validate your HTML code with one of the following HTML validators: **W3C validator** ↗ **(https://validator.w3.org/#validate_by_input)** (choose More Options, and in the Use Doctype dropdown menu choose HTML5), or **Validator.nu** ↗ **(https://html5.validator.nu/)** (choose Text Field from the dropdown).
5. Update your changes on GitHub using proper **Git Workflow** and **GitHub Workflow**.

Release 1: Get Fancy with Row and Column Span

Table cells can span a row or a column by setting the `rowspan` or `colspan` attributes on a cell.

When a cell has a `rowspan=2` attribute added to it, then it will span two rows, so in the next row, you need to remove a cell to account for the spanning. Likewise, when a cell has a `colspan=2` attribute added to it, then it will span two columns, so in the current row, you need to remove a cell to account for the spanning.

Here is an example of a table with `rowspan=2`.

The code below:

```
<table border=1>
    <tr>
      <th>Header 1</th>
      <th>Header 2</th>
      <th>Header 3</th>
    </tr>
    <tr>
      <td>Cell 1</td>
```

```
      <td>Cell 2</td>
      <td>Cell 3</td>
    </tr>
    <tr>
      <td rowspan="2">Some Text</td>
      <td> </td>
      <td>C</td>
    </tr>
    <tr>
      <td>Red 1</td>
      <td>Red 2</td>
    </tr>
 </table>
```

... will look like this in the browser:

Header 1	Header 2	Header 3
Cell 1	Cell 2	Cell 3
Some Text		C
	Red 1	Red 2

DO THE THING

Add another table to your practice page.

1. Create a table with at least one cell that spans two rows and another cell that spans two columns. (The table should have at least three rows and columns total.)
2. Validate your HTML code with one of the following HTML validators: **W3C validator** ↗ **(https://validator.w3.org/#validate_by_input)** (choose More Options, and in the Use Doctype dropdown menu choose HTML5), or **Validator.nu** ↗ **(https://html5.validator.nu/)** (choose Text Field from the dropdown).
3. Verify you can access the `table-practice.html` page live.
4. To complete this challenge, submit the GitHub URL of the `table-practice.html` page.

Some Rubric (8)			
Criteria	**Ratings**		**Pts**
🟫 use <tr> <td> and <th> threshold: 3.0 pts	Exceeds Expectations 5.0 pts	Meets Expectations 3.0 pts	Does Not Meet Expectations 0.0 pts	5.0 pts
🟫 use colspan and rowspan threshold: 3.0 pts	Exceeds Expectations 5.0 pts	Meets Expectations 3.0 pts	Does Not Meet Expectations 0.0 pts	5.0 pts
demonstrates good Git workflow	Exceeds Expectations 5.0 pts	Meets Expectations 3.0 pts	Does Not Meet Expectations 0.0 pts	5.0 pts
			Total Points: 15.0