CSCE 5320 Scientific Data Visualization

The Shapes of Data

Tutorial

- **Input for Visualization: Data and Tasks**

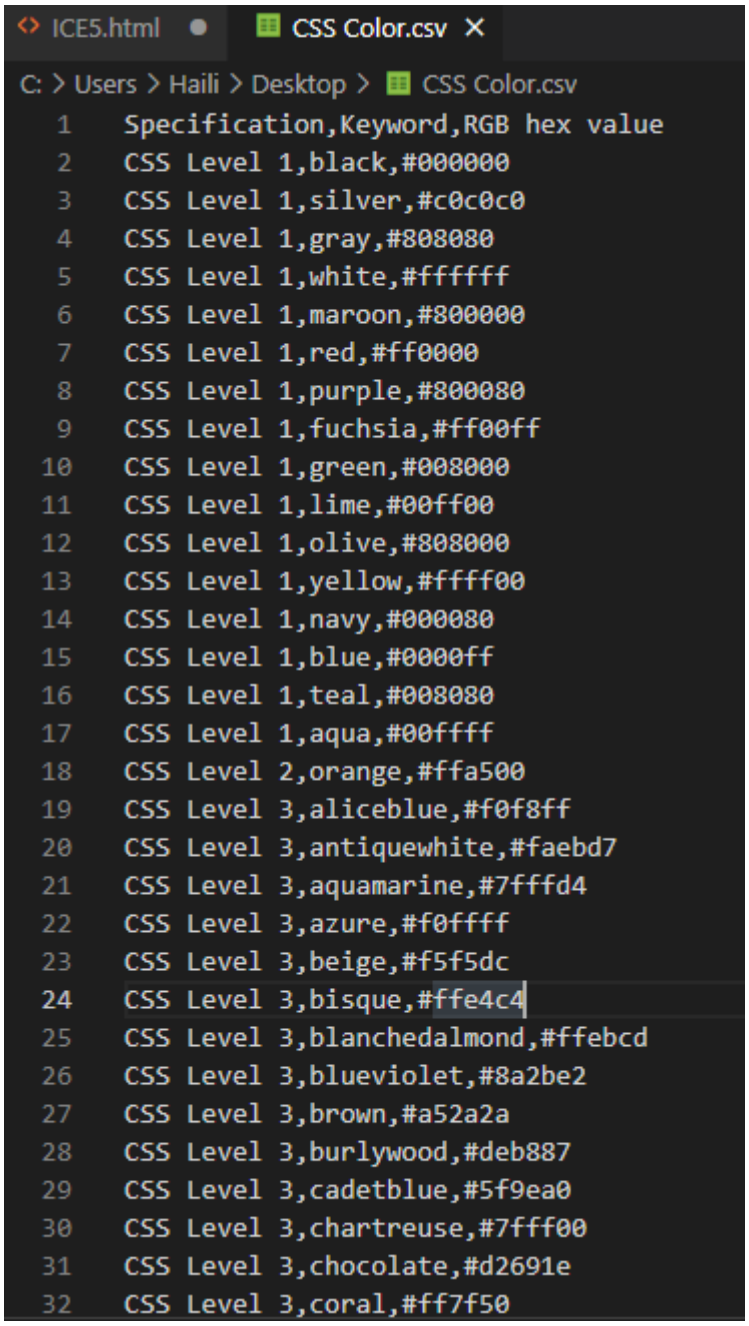
Data is typically represented either as CSV or Json. Text-based representation of a data table.

This is an example, please choose your own data for this lab. Every student should create a different CSV file.

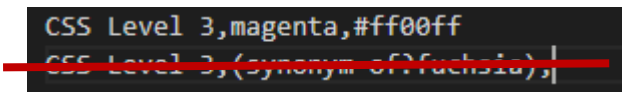
Example of data: CSS colors, select all value and copy it to Google sheets or Excel.

Specification	Keyword	RGB hex value	Live keyword
CSS Level 1	black	#000000	
	silver	#c0c0c0	
	gray	#808080	
	white	#ffffff	
	maroon	#800000	
	red	#ff0000	
	purple	#800080	
	fuchsia	#ff00ff	
	green	#008000	
	lime	#00ff00	
	olive	#808000	
	yellow	#ffff00	
	navy	#000080	
	blue	#0000ff	
	teal	#008080	
	aqua	#00ffff	
CSS Level 2 (Revision 1)	orange	#ffa500	
	aliceblue	#f0f8ff	
	antiquewhite	#faebd7	
	aquamarine	#7fffd4	
	azure	#f0ffff	
	beige	#f5f5dc	
	bisque	#ffe4c4	
	blanchedalmond	#ffebcd	
	blueviolet	#8a2be2	
	brown	#a52a2a	

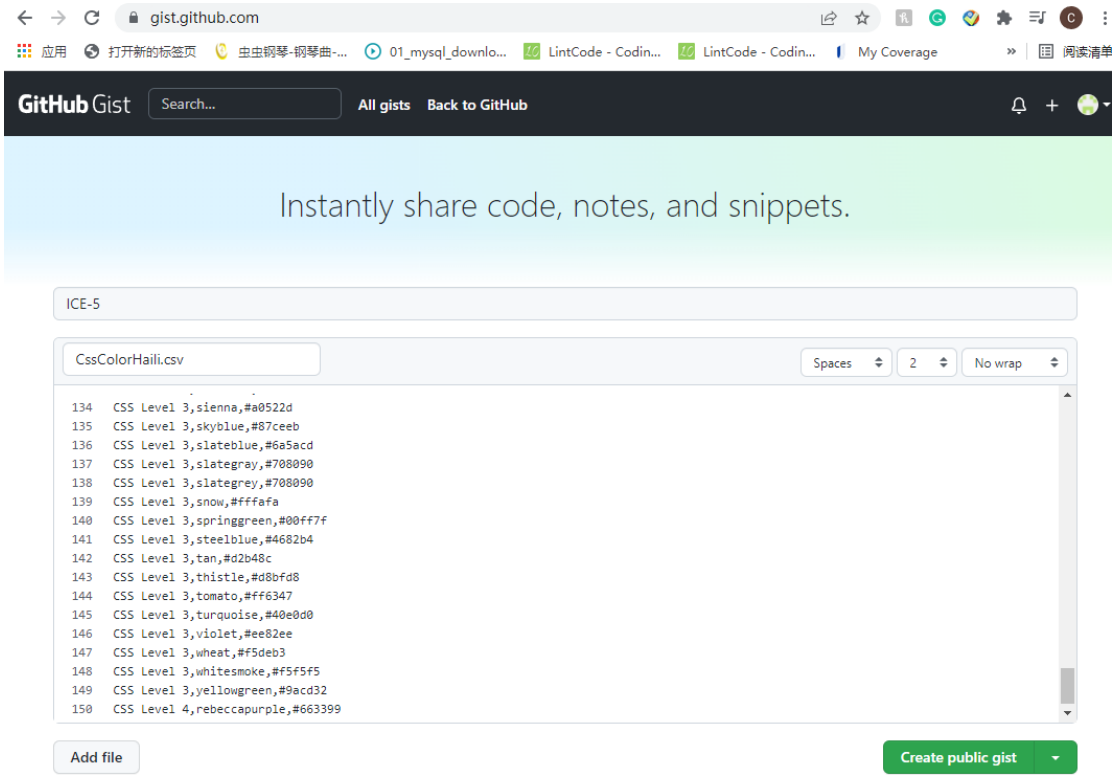
Transfer the excel doc to a csv file. Delete the column which has no text info and fill the column (Specification) for each row. Load the csv file to your code editor.



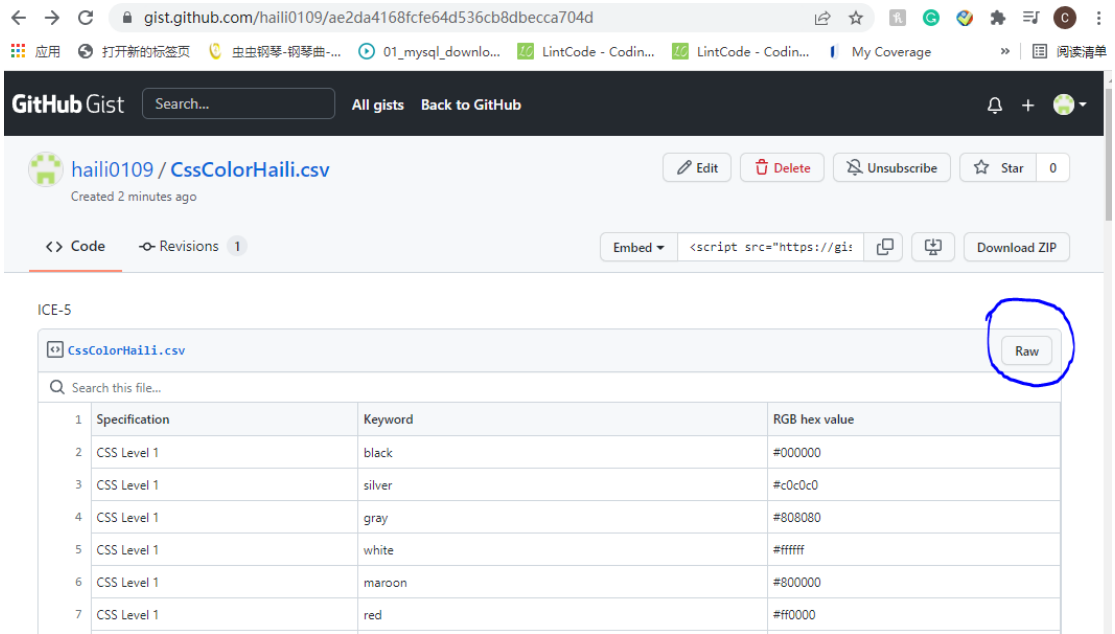
Clean data, find wrong rows/information in the csv file and delete incorrect rows, for example:



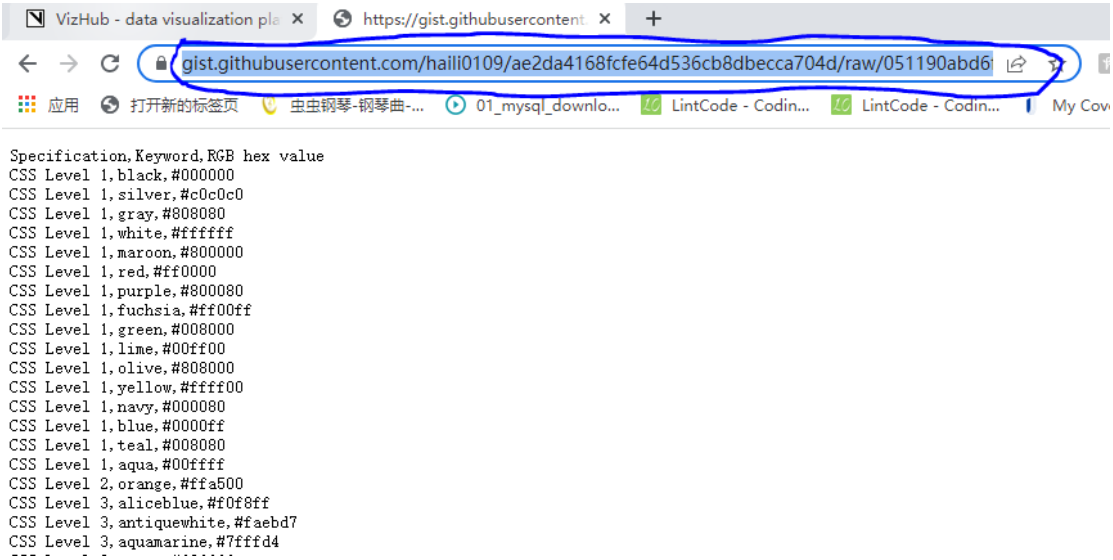
Create a URL link for this csv data, so you can download the data and put it in your future code. Go to https://gist.github.com/. Upload/copy your csv file and create public gist:



After you create your gist, click Raw on the right top conner,



Then you can get the URL of your data and use it for your coding.



Example of my data link:

https://gist.githubusercontent.com/haili0109/ae2da4168fcfe64d536cb8dbecca704d/raw/CssColorHaili.csv

Please create your own data link with different csv file and submit it for Q1.

- **Loading and Parsing Data with D3.js**

Resource link: https://developer.mozilla.org/en-US/docs/Web/API/Fetch_API
Source for d3: https://unpkg.com/d3@7.3.0/dist/d3.min.js
Create a html code and load the data, use your own VizHub account.

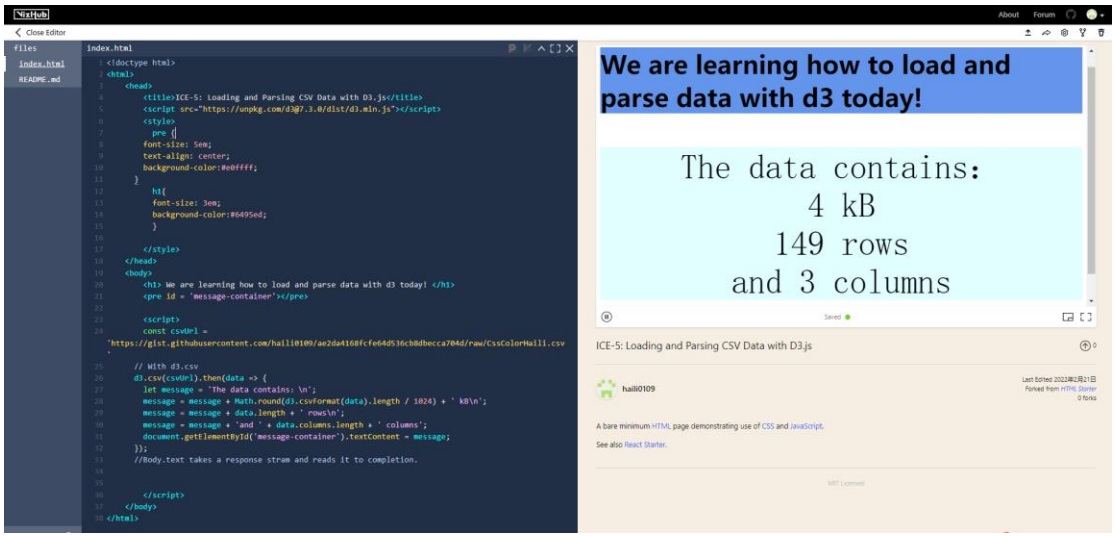
you can summarize the data on your console like this:

```
14          const csvUrl = 'https://gist.githubusercontent.com/haili0109/ae2da4168fcfe
15
16          fetchText(csvUrl).then(text => {
17              const data = d3.csvParse(text);
18              console.log(Math.round(text.length / 1024) + ' kb');
19              console.log(data.length + ' rows');
20              console.log(data.columns.length + ' columns');
21          });
22
23          //Body.text takes a response stram and reads it to completion.
24
25
26      </script>
27  </body>
28 </html>
```

ROBLEMS OUTPUT DEBUG CONSOLE TERMINAL Filter (e.g. text, !exclude)

```
4 kb
149 rows
3 columns
```

Show the data summary on the webpage. For example:



Adding css style and svg pictures into your webpage!

Copy your link like we did last time and submit it for Q2:

Share

SHARE WITH

Link Embed Snippet Collaborators

Sharing this link on social media will automatically create a preview.

https://vizhub.com/haili0109/d4df269ccaed4e0cbd1be12e9e613b3 Copy

Done