

CSS Intro Labs

Data Visualization

This lab shows you how to create a basic visualization for data. We have a dictionary that shows the GDP for countries. We then create an HTML document that shows the size of GDP by using circles.

lab-visual.py

```
gdp = {"Canada":50, "USA":150, "China":125, "France":75}

with open('visual.html', 'w') as file:
    file.write(''' <style>
        div {
            background-color: green;
            border-radius: 50%;
            display: inline-block;
            text-align: center;
        }

    </style>''')

    for country, amount in gdp.items():
        file.write(f'<div style="height:{amount}px;width:{amount}
px;">{country}</div>\n')
```

Dynamic Report

This project shows you how to dynamically create an HTML report where if a record has a certain value that line will be highlighted.

We read from a CSV file as our data store.

Note: Files should be in your user root directory.

```
with open('student.csv', 'r') as file:
    file = file.readlines()

with open('report.html', 'w') as report:
    report.write('<table>')

    for line in file[1:]:
        record = line.split(',')

        if record[4].strip() == 'Pollen':
            color = 'yellow'
        else:
            color = ''
        report.write(f'<tr style="background-color:{color}">')

        for value in record:
            report.write(f'<td>{value}</td>')

        report.write('</tr>')

    report.write('</table>')
```

Dynamic Web Site

This project shows you how to dynamically build a web site from variable values with CSS.

Note: HTML document will be written to your user root directory

```
header = "Hello World!!!"

column1 = "This is a really cool site!"

column2 = "We hope you think this site is really cool too!"

column3 = "Please tell us how cool you think we are!"

footer = "You can contact us at bob@reallycoolsite.com"

style = '''
    <style>
        div {
            display: flex;
            justify-content: center;
        }
        div.header {
            background-color: orange;
            font-size: 100px;
            text-align: center;
            display: block;
        }
        div.column {
            height: auto;
            width: 200px;
            display: inline-block;
        }
        div.footer {
            background-color: orange;
            font-size: 25px;
            text-align: center;
            display: block;
        }
    </style>
'''

with open('site.html', 'w') as file:
    file.write(f'''
        {style}
        <div class="header">{header}</div>
        <div>
            <div class="column">{column1}</div>
```

```
        <div class="column">{column2}</div>
        <div class="column">{column2}</div>
    </div>
    <div class="footer">{footer}</div>
''')
```

