

## SOURCE CODE

+ Code + Text

```
import matplotlib.pyplot as plt
import numpy as np

# Function to generate a sample dataset representing content importance
def generate_example_dataset():
    # Creating a sample dataset with specific values
    data = np.array([
        [5, 6, 3, 2, 8, 7, 4, 9, 1, 10],
        [8, 4, 9, 3, 6, 2, 7, 1, 10, 5],
        [2, 7, 5, 1, 10, 8, 3, 9, 4, 6],
        [6, 3, 1, 9, 4, 10, 2, 8, 5, 7],
        [9, 1, 7, 4, 3, 6, 8, 5, 10, 2],
        [3, 9, 6, 10, 1, 5, 8, 4, 2, 7],
        [7, 2, 8, 6, 5, 4, 10, 3, 9, 1],
        [10, 5, 4, 8, 2, 9, 1, 7, 6, 3],
        [1, 8, 10, 5, 7, 3, 6, 2, 9, 4],
        [4, 10, 2, 7, 9, 1, 5, 6, 3, 8]
    ])
    return data

# Generate example dataset
content_importance = generate_example_dataset()

# Visualize F-shaped reading pattern
plt.figure(figsize=(8, 6))

# Plotting the heatmap representing content importance
plt.imshow(content_importance, cmap='Reds', interpolation='nearest')
plt.colorbar(label='Content Importance')

# Simulating F-shaped pattern by highlighting key areas
key_section_1 = 3
key_section_2 = 7
baseline = 2

plt.axhline(y=key_section_1, color='blue', linestyle='--', label='Key Section 1')
plt.axhline(y=key_section_2, color='blue', linestyle='--', label='Key Section 2')
plt.axvline(x=baseline, color='green', linestyle='--', label='Baseline')

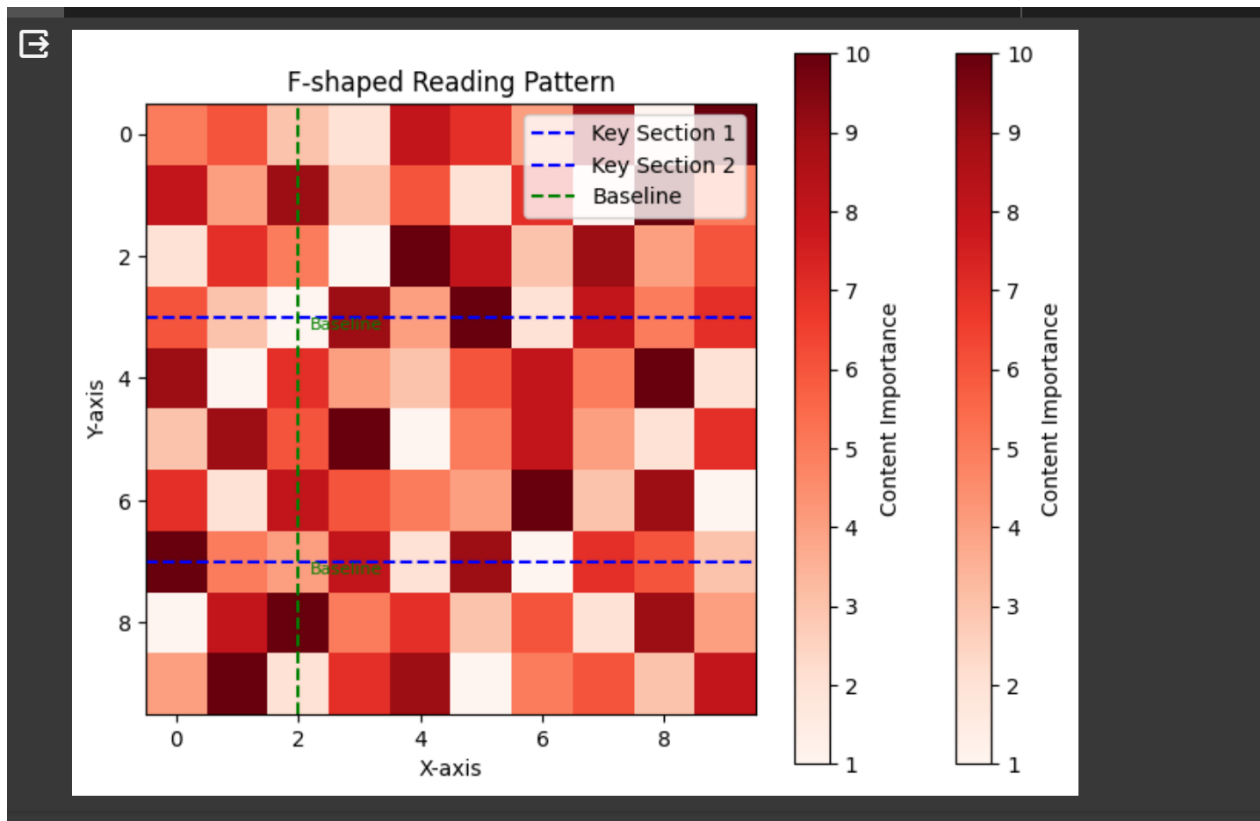
# Adding annotations for key areas
plt.text(baseline + 0.2, key_section_1 + 0.2, 'Baseline', color='green', fontsize=8)
plt.text(baseline + 0.2, key_section_2 + 0.2, 'Baseline', color='green', fontsize=8)

# Adding colorbar label
plt.colorbar(label='Content Importance')

# Adding axis labels and title
plt.xlabel('X-axis')
plt.ylabel('Y-axis')
plt.title('F-shaped Reading Pattern')

# Adding legend
plt.legend()

# Show the plot
plt.show()
```



```
File Edit Selection View Go Run Terminal Help
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EXPLORER
  OPEN EDITORS 1 unsaved
    index.html
    app.py
  SAI TEJA
    app.py
    index.html

app.py
1 from flask import Flask, render_template
2
3 app = Flask(__name__)
4
5 @app.route('/')
6 def index():
7     return render_template("index.html")
8
9 if __name__ == '__main__':
10     app.run(debug=True)
11
```

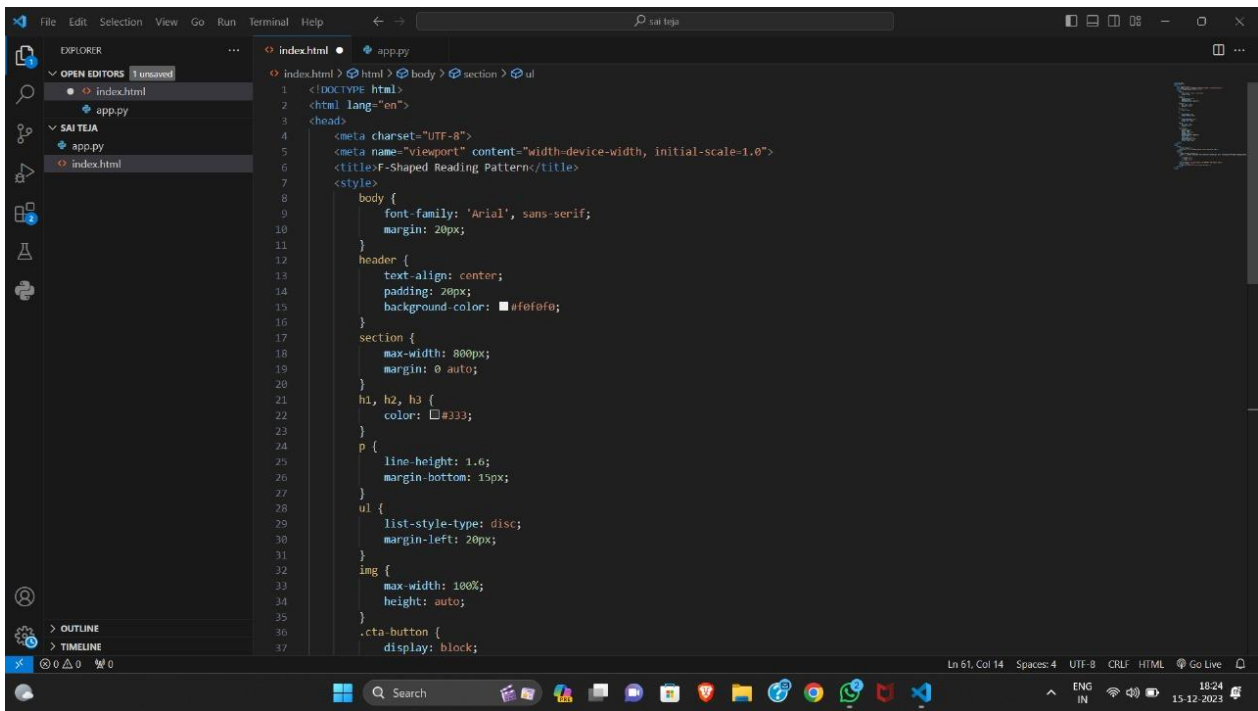
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

loading configuration....  
done loading configuration

Pip package updater

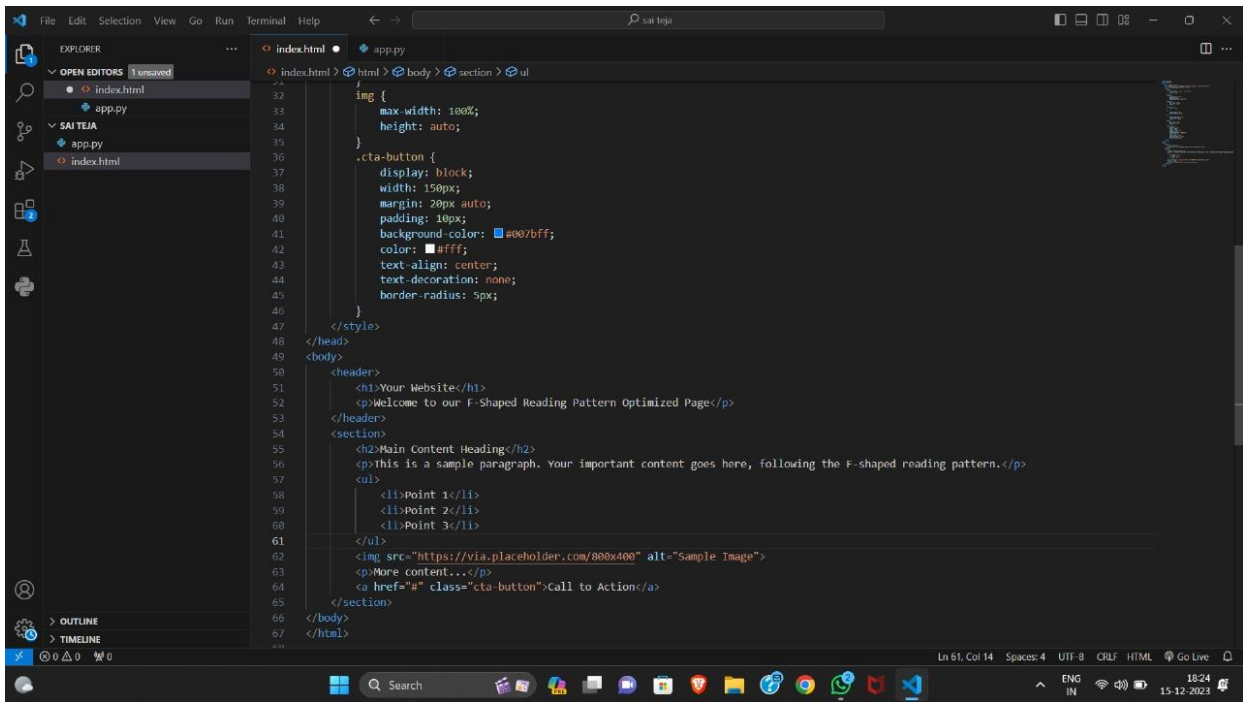
Ln 11, Col 1 Spaces: 4 UTF-8 CRLF Python Go Live

15-12-2023 18:23



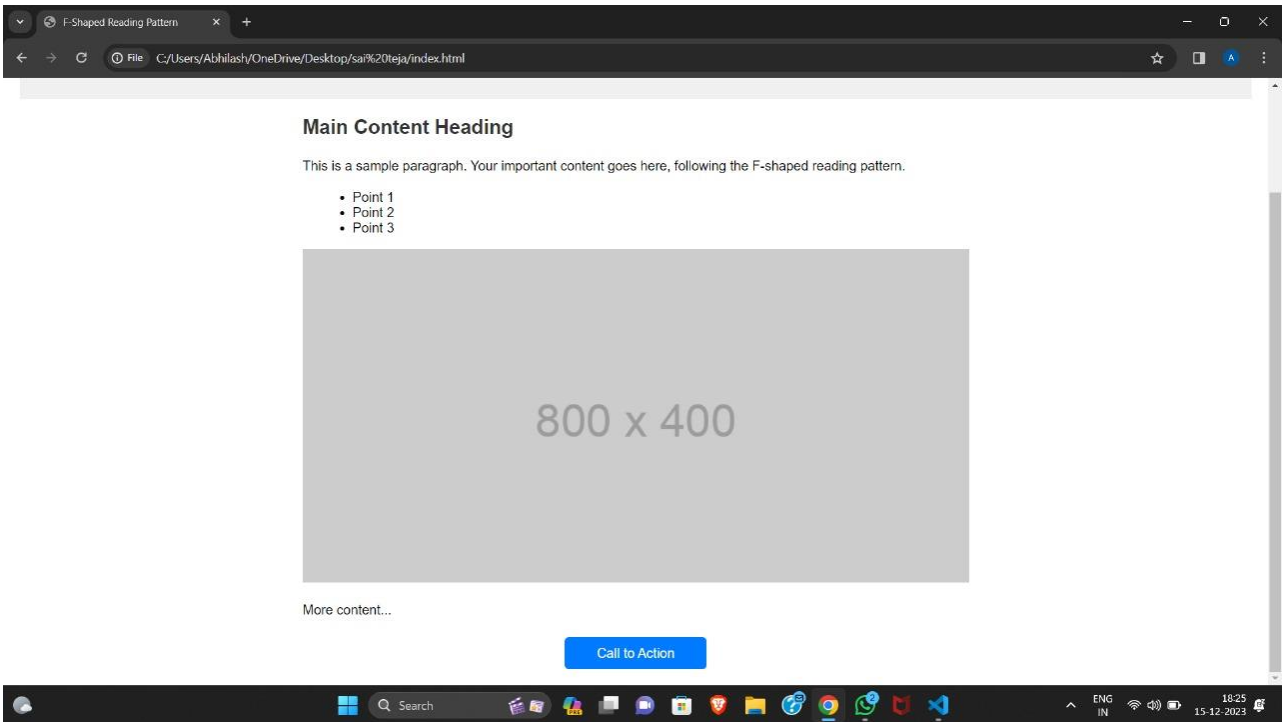
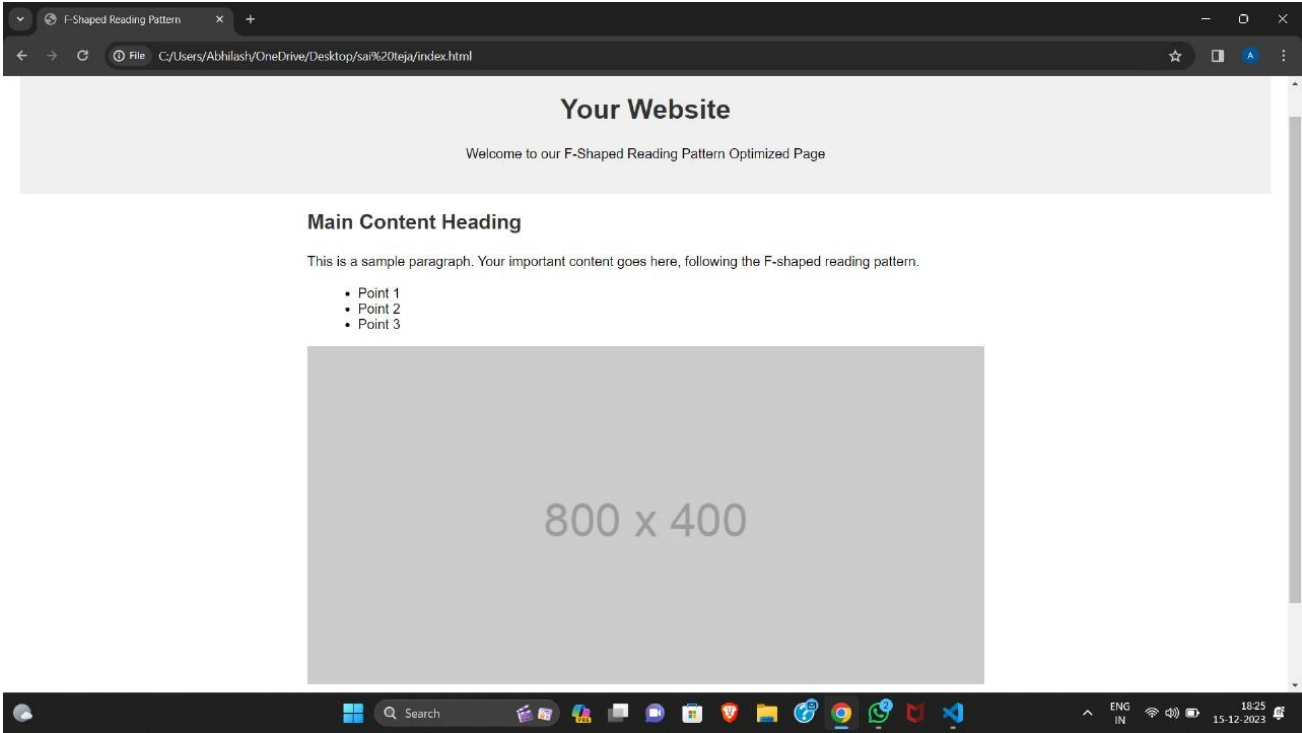
This screenshot shows the VS Code editor with the CSS file for index.html open. The code defines styles for the document structure, including a header, a main content section, and a list of items. The styles are as follows:

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>F-Shaped Reading Pattern</title>
7   <style>
8     body {
9       font-family: 'Arial', sans-serif;
10      margin: 20px;
11    }
12    header {
13      text-align: center;
14      padding: 20px;
15      background-color: #f0f0f0;
16    }
17    section {
18      max-width: 800px;
19      margin: 0 auto;
20    }
21    h1, h2, h3 {
22      color: #333;
23    }
24    p {
25      line-height: 1.6;
26      margin-bottom: 15px;
27    }
28    ul {
29      list-style-type: disc;
30      margin-left: 20px;
31    }
32    img {
33      max-width: 100%;
34      height: auto;
35    }
36    .cta-button {
37      display: block;
```



This screenshot shows the VS Code editor with the HTML file for index.html open. The code defines the structure of the web page, including a header, a main content section, and a call to action button. The HTML structure is as follows:

```
32   img {
33     max-width: 100%;
34     height: auto;
35   }
36   .cta-button {
37     display: block;
38     width: 150px;
39     margin: 20px auto;
40     padding: 10px;
41     background-color: #007bff;
42     color: #fff;
43     text-align: center;
44     text-decoration: none;
45     border-radius: 5px;
46   }
47 </style>
48 </head>
49 <body>
50   <header>
51     <h1>Your Website</h1>
52     <p>Welcome to our F-Shaped Reading Pattern Optimized Page</p>
53   </header>
54   <section>
55     <h2>Main Content Heading</h2>
56     <p>This is a sample paragraph. Your important content goes here, following the F-shaped reading pattern.</p>
57     <ul>
58       <li>Point 1</li>
59       <li>Point 2</li>
60       <li>Point 3</li>
61     </ul>
62     
63     <p>More content...</p>
64     <a href="#" class="cta-button">Call to Action</a>
65   </section>
66 </body>
67 </html>
```





An eye-tracking study by Jacob Nielsen, Nielsen Norman Group.