Stacked Bar Plot with Labels - Python Program

This Python program generates a stacked bar plot from multi-dimensional data, representing values across four segments and eight individuals. Each section of the bar is labeled.

Python Code

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

# Sample data
people = ('G1', 'G2', 'G3', 'G4', 'G5', 'G6', 'G7', 'G8')
segments = 4
data = np.array([
  [3.40022085, 7.70632498, 6.4097905, 10.51648577, 7.5330039, 7.1123587,
12.77792868, 3.44773477],
  [11.24811149, 5.03778215, 6.65808464, 12.32220677, 7.45964195, 6.79685302,
7.24578743, 3.69371847],
  [3.94253354, 4.74763549, 11.73529246, 4.6465543, 12.9952182, 4.63832778,
11.16849999, 8.56883433],
  [4.24409799, 12.71746612, 11.3772169, 9.00514257, 10.47084185, 10.97567589,
3.98287652, 8.80552122]
])

# Plotting
N = len(people)
ind = np.arange(N)
width = 0.5
fig, ax = plt.subplots(figsize=(10, 6))
bars = []
bottoms = np.zeros(N)
colors = ['#4daf4a', '#377eb8', '#ff7f00', '#984ea3']

for i in range(segments):
  bars.append(ax.bar(ind, data[i], width, bottom=bottoms, label=f'Segment {i+1}',
color=colors[i]))
  bottoms += data[i]

# Add labels
for i in range(segments):
  for j in range(N):
```

```
        height = data[i][j]
        if height > 0:
            ax.text(ind[j], sum(data[:i+1, j]) - height / 2,
                    f'{height:.1f}', ha='center', va='center', fontsize=8, color='white')

ax.set_ylabel('Scores')
ax.set_title('Stacked Bar Plot with Segment Labels')
ax.set_xticks(ind)
ax.set_xticklabels(people)
ax.legend()
plt.tight_layout()
plt.show()
```

Output Plot