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NAAC GRADE A+ ACCREDITED UNIVERSITY

Worksheet 5(b)

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Semester: 1st semester **Date of Performance:** 30/09/2024

Subject Name: Python Programming Lab **Subject Code:** 24CAH-606

AIM:

Write a python program to generate a simple bar graph using matplotlib. The graph should be properly labelled.

Task To be Done:

- **Data Creation:** Define categories and corresponding values for the pie chart.
- **Pie Chart Creation:** Use matplotlib to create a pie chart that represents the data.
- **Labelling the Chart:** Assign labels to the slices and display the percentage of each category.
- **Customization:** Apply custom colors to the pie chart slices, and adjust the starting angle for better presentation.
- **Display the Chart:** Use plt.show() to visualize the pie chart.

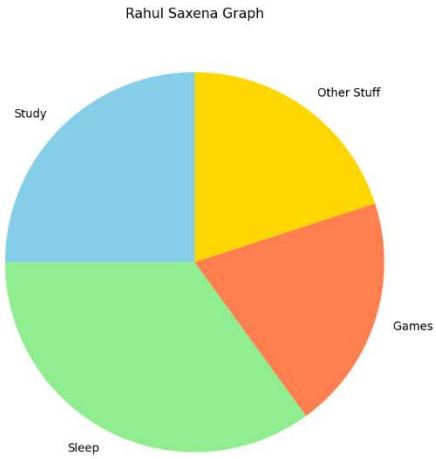
Source Code:

```
import matplotlib.pyplot as plt
categories = ['Study', 'Sleep', 'Games', 'Other Stuff']
values = [25, 35, 20, 20]

plt.pie(values, labels=categories, startangle=90, colors=['skyblue', 'lightgreen', 'coral', 'gold'])

plt.title('Rahul Saxena Graph')
plt.show()
```

Output:



Learning Outcome:

- **Understanding Pie Chart Representation:** Learn how to visually represent proportional data using a pie chart.
- **Mastering matplotlib for Pie Charts:** Gain hands-on experience in using matplotlib to generate and customize pie charts in Python.
- **Labelling and Formatting:** Understand how to label slices and display percentage values in pie charts for clear data interpretation.
- **Chart Customization**: Learn to customize pie charts by applying different colors and adjusting the starting angles for visual balance.
- **Improving Visualization Skills:** Develop skills in creating effective data visualizations that provide insights in a visually appealing format.