# Bar chart code comments

This code is a Python script that uses the Pandas library for data manipulation and the Matplotlib library for data visualization. It appears to be creating a bar graph to display the percentage contribution of temperature and orbital days for different planets.

Let's break down the code step by step:

- **Importing Libraries**: The code starts by importing the necessary libraries, **pandas** and **matplotlib.pyplot**, using the aliases **pd** and **plt**, respectively.
- **Data Definition**: The data for different planets is defined using a dictionary called **data**. It includes the names of the planets, their orbital periods in days, and their temperatures in Fahrenheit.
- **Creating a DataFrame**: The data from the dictionary is used to create a Pandas DataFrame named **df**, which is a tabular data structure that makes it easy to work with and analyze data.
- **Percentage Calculation**: The code calculates the percentage contribution of each planet's temperature and orbital period to the total temperature and total orbital days, respectively. These calculations are added as new columns to the DataFrame.
- **Creating the Bar Graph**: The code sets up a bar graph using Matplotlib. It specifies the figure size, bar width, colors, alpha values (transparency), labels, title, and axis labels. It also rotates the x-axis labels by 45 degrees for better readability.
- **Plotting the Data**: Two sets of bars are plotted on the graph using **plt.bar()**. One set represents the temperature percentages (in red), and the other set represents the orbital days percentages (in blue).
- **Grid and Layout**: The code adds a grid to the y-axis and adjusts the layout using **plt.grid()** and **plt.tight_layout()** for better visual clarity.
- **Adding Exact Numbers**: The **for** loop iterates through each row in the DataFrame using **df.iterrows()**. For each row, it uses **plt.text()** to add the exact temperature and orbital day values just above the corresponding bars.
- **Displaying the Graph**: Finally, the **plt.show()** function is called to display the complete bar graph.

Overall, this code takes data about different planets, calculates the percentage contributions of temperature and orbital days, and then visualizes this data in a bar graph with appropriate labels, colors, and annotations.