import pandas as pd

import matplotlib.pyplot as plt

# Modified data and index

data\_new = {

'Group X': [4, 7, 1, 8, 5],

'Group Y': [5, 2, 8, 3, 6],

'Group Z': [7, 5, 3, 4, 9]

}

index\_new = ['Object 1', 'Object 2', 'Object 3', 'Object 4', 'Object 5']

# Create DataFrame

df\_new = pd.DataFrame(data\_new, index=index\_new)

# Side-by-side bar plot

ax1 = df\_new.plot(kind='bar', figsize=(10, 6))

ax1.set\_xlabel('Objects')

ax1.set\_ylabel('Values')

ax1.set\_title('Side-by-Side Bar Plot')

plt.xticks(rotation=0)

plt.show()

# Stacked bar plot

ax2 = df\_new.plot(kind='bar', stacked=True, figsize=(10, 6))

ax2.set\_xlabel('Objects')

ax2.set\_ylabel('Values')

ax2.set\_title('Stacked Bar Plot')

plt.xticks(rotation=0)

plt.show()