**EXPERIMENT-31**

**AIM:**

To computea program to create a stacked bar plot with error bars  
**PROGRAM:**

import numpy as np

import matplotlib.pyplot as plt

means\_men = [22, 30, 35, 35, 26]

means\_women = [25, 32, 30, 35, 29]

std\_men = [4, 3, 4, 1, 5]

std\_women = [3, 5, 2, 3, 3]

ind = np.arange(len(means\_men))

width = 0.35

fig, ax = plt.subplots()

men\_bars = ax.bar(ind, means\_men, width, yerr=std\_men, label='Men', capsize=5)

women\_bars = ax.bar(ind, means\_women, width, bottom=means\_men, yerr=std\_women, label='Women', capsize=5)

ax.set\_xlabel('Groups')

ax.set\_ylabel('Scores')

ax.set\_title('Scores by group and gender with error bars')

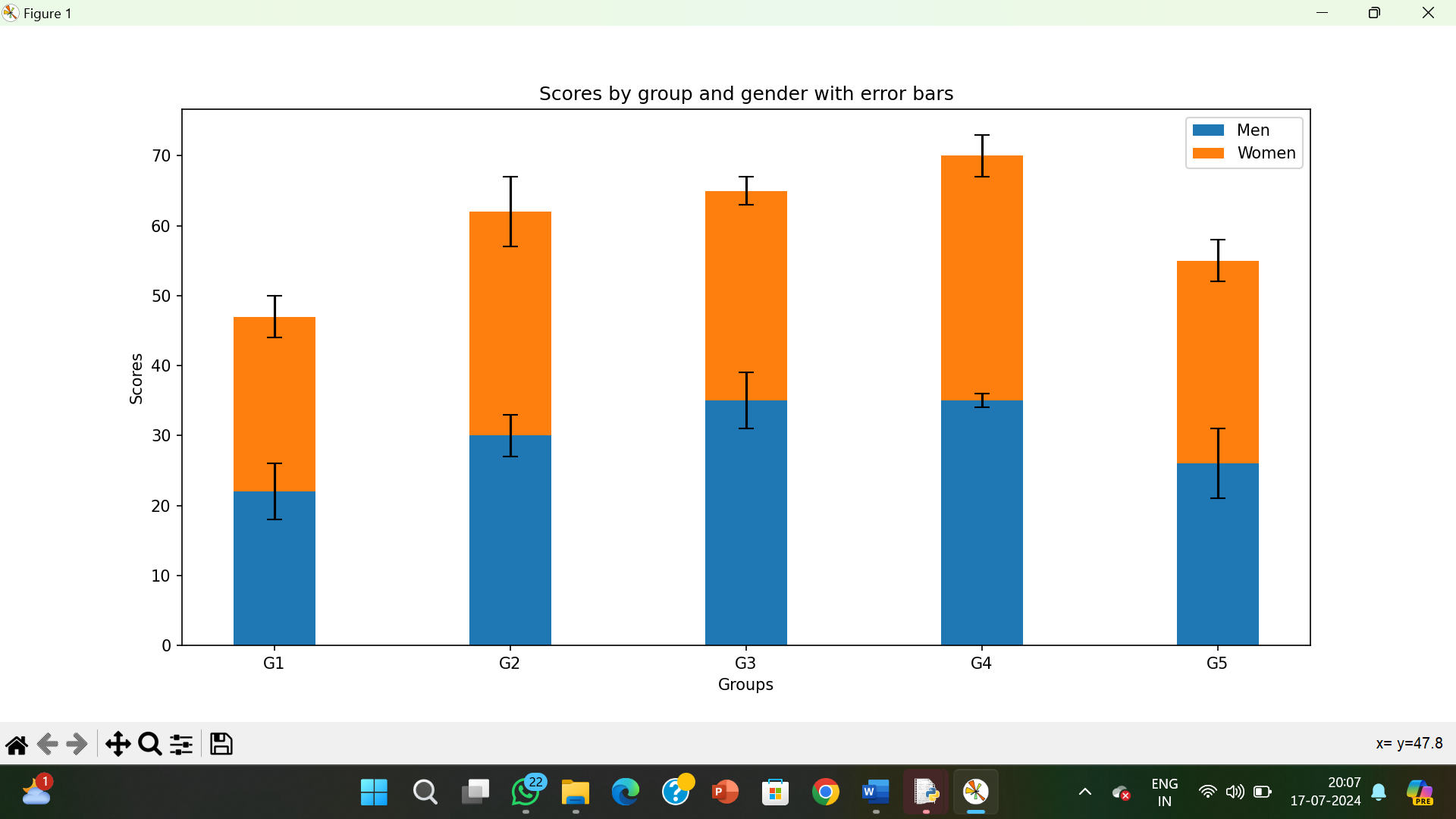
ax.set\_xticks(ind)

ax.set\_xticklabels(('G1', 'G2', 'G3', 'G4', 'G5'))

ax.legend()

plt.show()

**OUTPUT:**



**RESULT:**

The pythonprogram to create a stacked bar plot with error bars is executed and verified.