

Write a Python program to create bar plot of scores by group and gender. Use multiple X values on the same chart for men and women.

Sample Data:

Means (men) = (22, 30, 35, 35, 26)

Means (women) = (25, 32, 30, 35, 29)

PROGRAM:

```
import matplotlib.pyplot as plt

import numpy as np

# Sample Data

means_men = (22, 30, 35, 35, 26)

means_women = (25, 32, 30, 35, 29)

# Number of groups

num_groups = len(means_men)

# X values for the bar plots

men_indices = np.arange(num_groups)

women_indices = men_indices + 0.35 # To shift bars for women to the right

# Bar width

bar_width = 0.35

# Create bar plots

plt.bar(men_indices, means_men, bar_width, label='Men')

plt.bar(women_indices, means_women, bar_width, label='Women')

# Set labels and title

plt.xlabel('Groups')

plt.ylabel('Scores')

plt.title('Scores by Group and Gender')

plt.xticks(men_indices + bar_width / 2, ['Group {}'.format(i+1) for i in range(num_groups)])

# Show legend
```

```
plt.legend()
```

```
# Show the plot
```

```
plt.show()
```

OUTPUT:

