



CODE CHALLENGE
CHAMPIONSHIP

PYTHON MISSION 2

CODE CHALLENGE CHAMPIONSHIP
SENIOR CATEGORY

20
24

Employee Performance Evaluator

Overview:

A large retail store, “ShopSmart”, collects performance ratings from managers for their employees. They want to automate the analysis of this performance data to understand trends in employee efficiency, identify areas for improvement, and reward high performers.

Mission:

- 1- Make a function named “**evaluate_performance**” that has one parameter named “**ratings**” of type list, where each rating is an integer between 1 and 10.
 - 2- The function will use this list to analyze and print the following:
 - The **average** employee rating.
 - The **median** employee rating.
 - The **mode** employee rating.
 - 3- The program should **count the rating number** and continuously asking to enter the rating value to be inserted in a **list** as long as “**stop**” **is not entered** before calculating the requested insights.
 - 4- Handle any **invalid entries** such as no ratings entered, entering negative values or ratings outside the accepted range of **1 to 10**.
- As a bonus part**, extend the function to categorize the ratings into three groups which are: “**Low**” (1-3), “**Medium**” (4-7), “**High**” (8-10) as well as counting the number of ratings in each category and printing out their **percentages**.

Useful Hints:

- ✓ Utilize the built-in statistics module functions like **mean()**, **median()**, and **mode()** to perform the calculations.
- ✓ Use the **range()** class to easily categorize the ratings.
- ✓ Create an empty list and use the **append()** method to add each rating to this list in order to perform the requested calculations.

Expected Output:

Example of 9 employees' ratings entered with the bonus part

```
Enter rating 1 or 'stop' to end: stop
No ratings provided
Enter rating 1 or 'stop' to end: 12
Invalid input or rating out of range.
Enter rating 1 or 'stop' to end: 8
Enter rating 2 or 'stop' to end: 5
Enter rating 3 or 'stop' to end: 9
Enter rating 4 or 'stop' to end: 4
Enter rating 5 or 'stop' to end: 6
Enter rating 6 or 'stop' to end: 1
Enter rating 7 or 'stop' to end: 10
Enter rating 8 or 'stop' to end: 9
Enter rating 9 or 'stop' to end: 7
Enter rating 10 or 'stop' to end: stop

Rating Statistics:
Average employee rating: 6.56
Median employee rating: 7
Mode employee rating: 9

Rating Categorization:
Low Performance (1-3): 1 employees (11.11%)
Medium Performance (4-7): 4 employees (44.44%)
High Performance (8-10): 4 employees (44.44%)
```

Annotations:

- No ratings yet
- Out of range
- Summary Statistics
- Bonus part