Documentation for Movie Budget Analysis Program

This Python program analyzes a list of movies along with their budgets. It calculates the total number of movies, the sum of all movie budgets, the average movie budget, and then identifies the movies whose budgets are higher than the average. The program also computes the difference between each above-average movie's budget and the average budget.

# Data Structures

1. movies: A list of tuples where each tuple contains:

- Movie name (string).

- Movie budget (integer).

# Variables

1. sum: Stores the cumulative total of all movie budgets (initially 0).

2. index: Counts the total number of movies processed (initially 0).

3. avg: Stores the average budget of all movies (calculated after loop).

# Main Flow

1. A list of movies and their budgets is defined.

2. A for loop iterates through each movie tuple (i = movie name, j = movie budget).

- The budget j is added to sum.

- The index (movie count) is increased by 1.

- The average is updated as sum/index.

3. After the loop ends, the program prints:

- Total number of movies.

- Sum of all movie budgets.

- Average budget of movies.

4. Another for loop iterates through the movies again:

- If the movie’s budget is higher than the average, it prints:

• Movie name.

• Movie budget.

• Difference between budget and average.

# Important Logic

1. for i, j in movies: Iterates through each tuple (movie name and budget).

2. sum += j: Accumulates the total of all budgets.

3. index += 1: Counts each movie processed.

4. avg = sum / index: Computes the average budget.

5. if j > avg: Checks if a movie’s budget is higher than the average.

6. diff = j - avg: Finds how much higher the budget is compared to the average.

# End of Program

At the end, the program displays the list of movies that have a budget higher than the average along with their budget difference.