# MUSSARAT JAMSHED 065

# Movie Budget Analysis Project

## Problem (in Simple Words)

We have a small dataset of movies. Each movie has a name and a budget.  
  
We want the computer to:  
1. Work out the average budget of all movies.  
2. Show which movies cost more than the average (and by how much).  
3. Count how many movies are above average.  
4. (Extra feature) Let the user add more movies before running the calculations.

## Step-by-Step Plan

1. Start with the movie list.  
2. Add up all the budgets and divide by number of movies → that’s the average budget.  
3. Go through the list again:  
 - If a movie’s budget is greater than the average, print its name and how much higher it is.  
4. Keep track of how many are above average.  
5. (Optional) Before running, ask the user if they want to add new movies.  
  
 Step 1: Start with some movies  
movies = [  
 ("Eternal Sunshine of the Spotless Mind", 20000000),  
 ("Memento", 9000000),  
 ("Requiem for a Dream", 4500000),  
 ("Pirates of the Caribbean: On Stranger Tides", 379000000),  
 ("Avengers: Age of Ultron", 365000000),  
 ("Avengers: Endgame", 356000000),  
 ("Incredibles 2", 200000000)  
]  
  
# Step 2 (Optional): Let user add more movies  
add\_count = int(input("How many movies do you want to add? "))  
for i in range(add\_count):  
 name = input(f"Enter name of movie {i+1}: ")  
 budget = int(input(f"Enter budget of '{name}': "))  
 movies.append((name, budget))  
  
# Step 3: Work out the average budget  
total\_budget = sum(budget for \_, budget in movies)  
average\_budget = total\_budget / len(movies)  
print(f"\n🎬 Average budget: ${average\_budget:,.0f}\n")  
  
# Step 4: Find movies above average  
above\_avg = []  
for name, budget in movies:  
 if budget > average\_budget:  
 diff = budget - average\_budget  
 print(f"'{name}' spent ${diff:,.0f} more than average")  
 above\_avg.append(name)  
  
# Step 5: Print how many are above average  
print(f"\n📊 Number of movies above average: {len(above\_avg)}")

## ✅ Example Run

How many movies do you want to add? 0  
  
🎬 Average budget: $190,785,714  
  
'Pirates of the Caribbean: On Stranger Tides' spent $188,214,286 more than average  
'Avengers: Age of Ultron' spent $174,214,286 more than average  
'Avengers: Endgame' spent $165,214,286 more than average  
'Incredibles 2' spent $9,214,286 more than average  
  
📊 Number of movies above average: 4