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**Task: Movie Budget**

**AI LAB TASK: 2**

**Mini Project:02**

**Movie Budgeting Project**

**Introduction**

This project is about analyzing movie budgets using Python and Object-Oriented Programming. The program first calculates the average budget of all movies in the dataset, then finds out which movies have a higher budget than the average. It also shows how much more these movies spent compared to the average and the total number of above-average movies. I also added a feature where the user can enter new movies and budgets before the analysis.

**Main Functions Used**

* **\_\_init\_\_** → to initialize the movie objects and movie list.
* **\_\_repr\_\_** → to represent movie objects in a readable form.
* **add\_movies** → to take input from the user for adding new movies.
* **calculate\_average** → to find the average budget of all movies.
* **above\_average\_movies** → to return the list of movies above the average budget.
* **show\_report** → to print the final results including average, higher budget movies, and total count.

**Problems Faced and Solutions**

1. At first, I was **directly storing movies as tuples** which made it hard to manage.  
    I created a Movie class so that every movie has its own object with title and budget.
2. **Wrong input by the user** (like typing text instead of numbers) caused errors.  
   I used try-except to handle invalid inputs and asked the user again for correct data.
3. **Showing clear output** was difficult in the beginning I used string formatting with commas and decimal places to make the results more readable.

**Features**

* Calculates the **average budget** of movies.
* Shows movies that are **above the average**.
* Displays by how much each movie exceeded the average.
* Counts the number of above-average movies.
* Allows users to **add their own movies** dynamically.

**Beneficial:**

This program is beneficial in areas where data analysis of budgets or costs is needed. It helps in quickly identifying which items (in this case, movies) are consuming higher resources than the average. The same structure can be applied in business for expense tracking, project cost analysis.

### Disadvantages

* The program only works for budgets, it does not analyze other details like revenue or profit.
* It depends on user input, so if wrong values are entered the results may not be meaningful.
* It does not store the new movies permanently, once the program ends the added data is lost.