**EXERCISE 2**:Financial Forecasting

**Program:**

using System;

using System.Collections.Generic;

class FinancialForecasting

{

static void Main()

{

List<double> expenses = new List<double>();

Console.WriteLine("Enter your monthly expenses for the last 6 months:");

for (int i = 1; i <= 6; i++)

{

Console.Write("Month " + i + " expense (₹): ");

string? input = Console.ReadLine();

double value;

if (double.TryParse(input, out value))

{

expenses.Add(value);

}

else

{

Console.WriteLine("Invalid input, try again.");

i--;

}

}

Console.WriteLine("\nYour Entered Expenses:");

for (int i = 0; i < expenses.Count; i++)

{

Console.WriteLine("Month " + (i + 1) + ": ₹" + expenses[i]);

}

if (expenses.Count >= 2)

{

double last = expenses[expenses.Count - 1];

double secondLast = expenses[expenses.Count - 2];

double change = last - secondLast;

double trendForecast = last + change;

Console.WriteLine("\n Trend-based Forecast for next month: ₹" + Math.Round(trendForecast, 2));

}

if (expenses.Count >= 3)

{

double sum = 0;

for (int i = expenses.Count - 3; i < expenses.Count; i++)

{

sum += expenses[i];

}

double movingAvg = sum / 3;

Console.WriteLine("3-Month Moving Average Forecast: ₹" + Math.Round(movingAvg, 2));

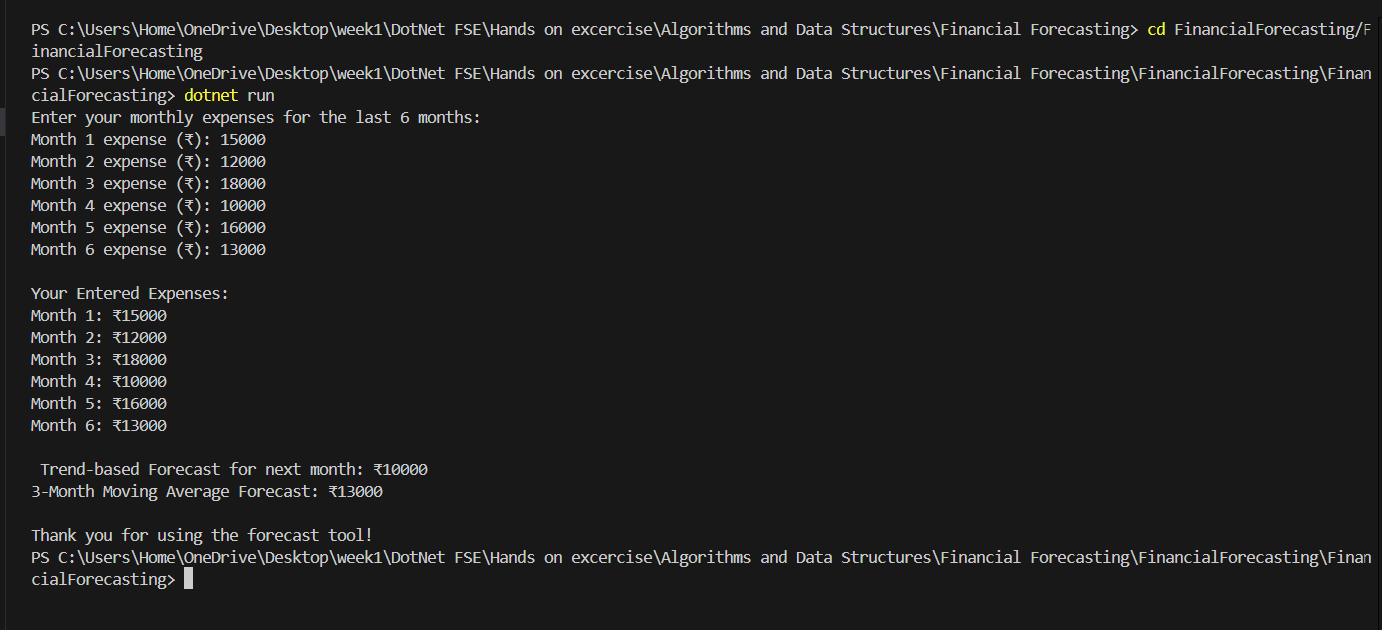
}

Console.WriteLine("\nThank you for using the forecast tool!");

}

}

**Output:**

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