**Exercise 7: Financial Forecasting**

**Source code:**

public class FinancialForecasting {

public static double futureValue(double currentValue, double growthRate, int years) {

if (years == 0) {

return currentValue;

}

return futureValue(currentValue \* (1 + growthRate), growthRate, years - 1);

}

public static void main(String[] args) {

double initialValue = 1000.0;

double annualGrowthRate = 0.05;

int forecastYears = 5;

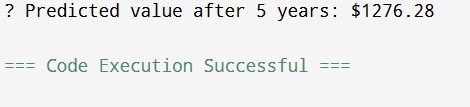
double predictedValue = futureValue(initialValue, annualGrowthRate, forecastYears);

System.out.printf(" Predicted value after %d years: $%.2f%n", forecastYears, predictedValue);

}

}

**Output :**

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