**TOPIC :DATA STRUCTURES AND ALGORITHM**

EXERCISE 4 : FINANCIAL FORECASTING

public class FinanceForecast {

private double[] pastRevenue;

private double growthRate;

public FinanceForecast(double[] pastRevenue, double growthRate) {

this.pastRevenue = pastRevenue;

this.growthRate = growthRate;

}

public void forecastNextMonths(int months) {

double lastRevenue = pastRevenue[pastRevenue.length - 1];

System.***out***.println(" Forecast revenue for the next " + months + " months");

for (int i = 1; i <= months; i++) {

lastRevenue = lastRevenue + (lastRevenue \* growthRate);

System.***out***.printf("Month %d: ₹%.2f%n", i, lastRevenue);

}

}

}

public class FinanceTest {

public static void main(String[] args) {

double[] pastRevenue = {50000, 52000, 54000};

double expectedGrowthRate = 0.05;

System.***out***.println("Past Revenue (last 3 months):");

for (int i = 0; i < pastRevenue.length; i++) {

System.***out***.printf("Month %d: ₹%.2f%n", i + 1, pastRevenue[i]);

}

FinanceForecast forecast = new FinanceForecast(pastRevenue, expectedGrowthRate);

forecast.forecastNextMonths(3);

}

}

**OUTPUT SCREENSHOT:**

