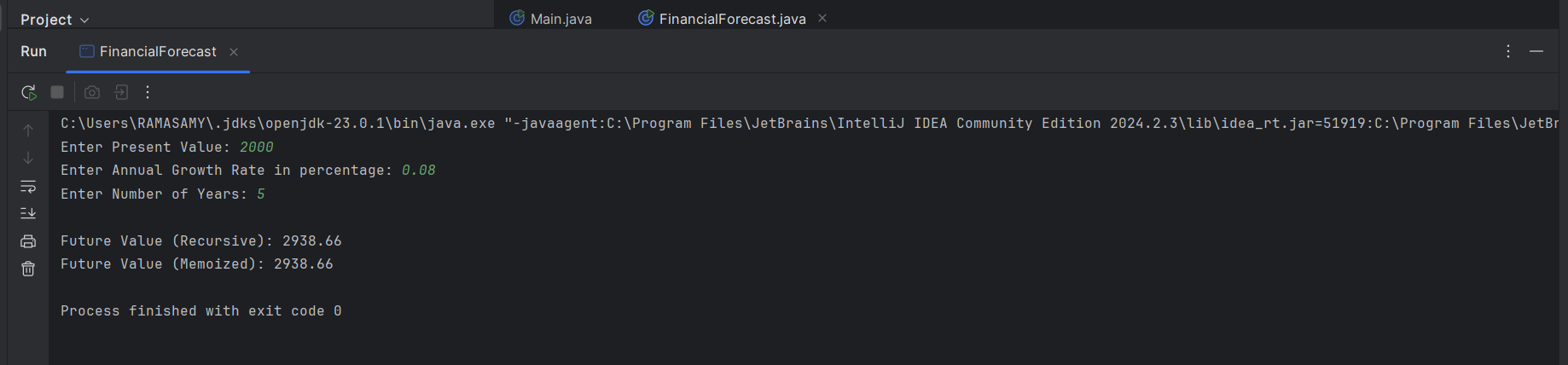
**Exercise 7: Financial Forecasting**

**CODE:**

**FinancialForecast.java**

import java.util.Scanner;  
  
public class FinancialForecast {  
 public static double futureValue(double presentValue, double growthRate, int years) {  
 if (years == 0) {  
 return presentValue; // Base case  
 }  
 return (1 + growthRate) \* *futureValue*(presentValue, growthRate, years - 1);  
 }  
 public static double futureValueMemo(double presentValue, double growthRate, int years, double[] memo) {  
 if (years == 0) return presentValue;  
 if (memo[years] != 0) return memo[years];  
 memo[years] = (1 + growthRate) \* *futureValueMemo*(presentValue, growthRate, years - 1, memo);  
 return memo[years];  
 }  
 public static void main(String[] args) {  
 Scanner sc = new Scanner(System.*in*);  
 System.*out*.print("Enter Present Value: ");  
 double presentValue = sc.nextDouble();  
  
 System.*out*.print("Enter Annual Growth Rate in percentage: ");  
 double growthRate = sc.nextDouble();  
  
 System.*out*.print("Enter Number of Years: ");  
 int years = sc.nextInt();  
  
 double result = *futureValue*(presentValue, growthRate, years);  
 System.*out*.printf("\nFuture Value (Recursive): %.2f\n", result);  
  
  
 double[] memo = new double[years + 1];  
 double resultMemo = *futureValueMemo*(presentValue, growthRate, years, memo);  
 System.*out*.printf("Future Value (Memoized): %.2f\n", resultMemo);  
  
 sc.close();  
 }  
}

**OUTPUT:**

****