Exercise 7: Financial Forecasting

FinancialForecast.java :

```
package financialForecast;

public class FinancialForecast {

        public static double futureValue(double pv, double rate, int years) {

                if(years == 0) {

          return pv;

       }else {

          return (1 + rate) * futureValue(pv, rate, years - 1);

       }

         }

   public static void main(String[] args) {

       double presentValue = 10000;

       double annualGrowthRate = 0.05;

       int numberOfYears = 5;

       double futureValue = futureValue(presentValue, annualGrowthRate,
numberOfYears);

       System.out.println("Future value after "+numberOfYears+
"years:"+futureValue);

   }

}
```

Output:

```java
package financialForecast;

public class FinancialForecast {
    public static double futureValue(double pv, double rate, int years) {
        if(years == 0) {
            return pv;
        }else {
            return (1 + rate) * futureValue(pv, rate, years - 1);
        }
    }


    public static void main(String[] args) {
        double presentValue = 10000;
        double annualGrowthRate = 0.05;
        int numberOfYears = 5;

        double futureValue = futureValue(presentValue, annualGrowthRate, numberOfYears

        System.out.println("Future value after "+numberOfYears+" years: "+futureValue)
    }
}
```

Console Coverage

<terminated> FinancialForecast [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe (22-Jun-2025, 3:12:29 pm – 3:12:29 p

```
Future value after 5 years: 12762.815625000001
```