

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:

```
1 package financialForecast;
2
3 public class FinancialForecast {
4     public static double futureValue(double pv, double rate, int years) {
5         if(years == 0) {
6             return pv;
7         }else {
8             return (1 + rate) * futureValue(pv, rate, years - 1);
9         }
10    }
11
12
13    public static void main(String[] args) {
14        double presentValue = 10000;
15        double annualGrowthRate = 0.05;
16        int numberOfYears = 5;
17
18        double futureValue = futureValue(presentValue, annualGrowthRate, numberOfYears);
19
20        System.out.println("Future value after "+numberOfYears+" years: "+futureValue)
21    }
22 }
23
24
```

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 pm)
Future value after 5 years: 12762.815625000001