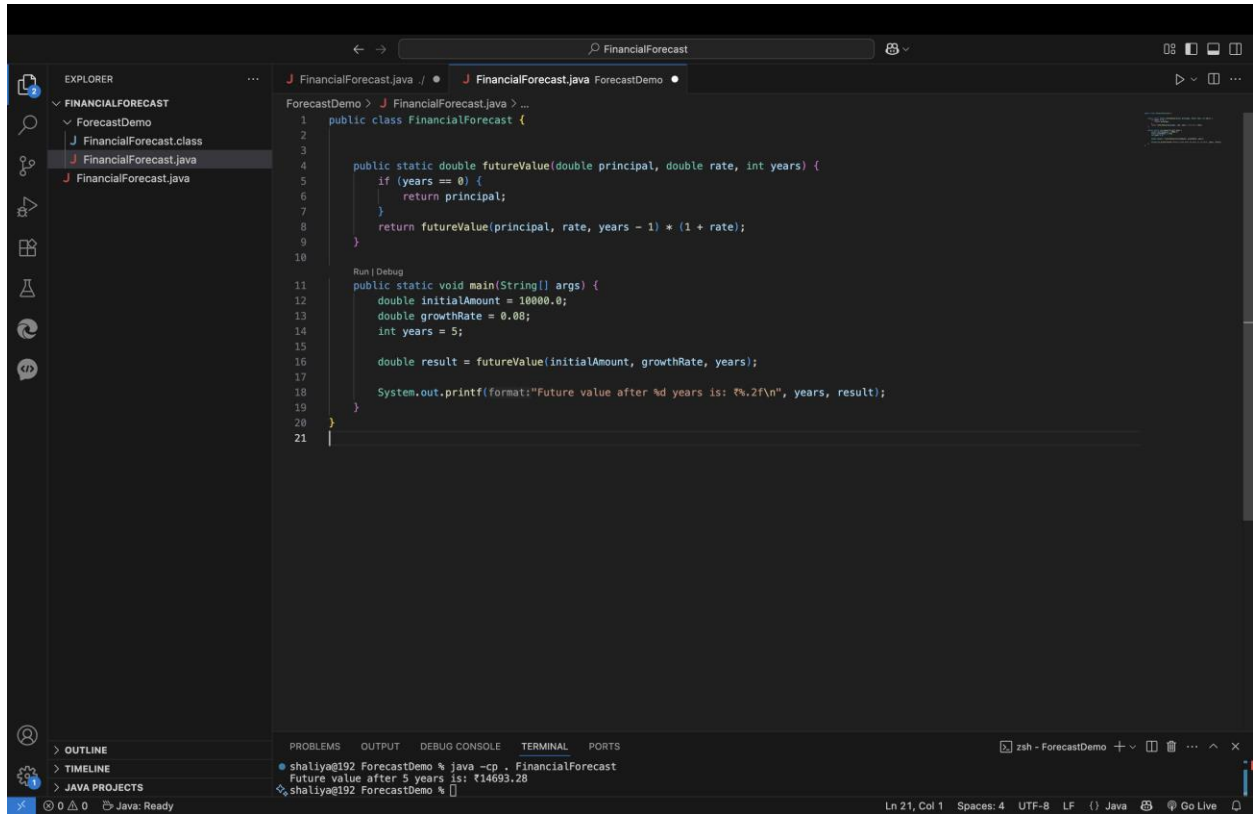


# Exercise 7: Financial Forecasting



The screenshot shows an IDE with a project named 'FINANCIALFORECAST'. The 'EXPLORER' panel on the left shows the project structure with files 'FinancialForecast.class', 'FinancialForecast.java', and 'ForecastDemo'. The main editor displays the code for 'FinancialForecast.java' and 'ForecastDemo.java'. The code implements a recursive method 'futureValue' and a 'main' method that calculates the future value of an investment.

```
1 public class FinancialForecast {
2
3
4     public static double futureValue(double principal, double rate, int years) {
5         if (years == 0) {
6             return principal;
7         }
8         return futureValue(principal, rate, years - 1) * (1 + rate);
9     }
10
11     Run | Debug
12     public static void main(String[] args) {
13         double initialAmount = 10000.0;
14         double growthRate = 0.08;
15         int years = 5;
16
17         double result = futureValue(initialAmount, growthRate, years);
18
19         System.out.printf(format:"Future value after %d years is: %.2f\n", years, result);
20     }
21 }
```

The bottom panel shows the 'TERMINAL' output:

```
shaliya@192 ForecastDemo % java -cp . FinancialForecast
Future value after 5 years is: ₹14693.28
shaliya@192 ForecastDemo %
```

