

Project: p08

Assignment: (*Financial application: compute the future investment value*) Write a method that computes future investment value at a given interest rate for a specified number of years. The future investment is determined using the formula in Programming Exercise 2.21.

Use the following method header:

```
public static double futureInvestmentValue(  
    double investmentAmount, double monthlyInterestRate, int years)
```

For example, `futureInvestmentValue(10000, 0.05/12, 5)` returns **12833.59**.

Write a test program that prompts the user to enter the investment amount (e.g., 1,000) and the interest rate (e.g., 9%) and prints a table that displays future value for the years from 1 to 30, as shown in Figure 1 on the following page.

Program Files: Project 8 consists of file **p08.zip**. File **p08.zip** is the folder containing Java project p08 created by Apache NetBeans. Attach file **p08.zip** to a note addressed to me, trturner@uco.edu, having the subject line crn-lastname-firstname-p08. For example, if you are Alan Turing and you are enrolled in CRN 25440, then the subject is **25440-Turing-Alan-p08**.

```
run:
Enter the amount to invest: $1000
Enter the Annual Percentage Rate: %9
Years          Future Value
1              1093.81
2              1196.41
3              1308.65
4              1431.41
5              1565.68
6              1712.55
7              1873.20
8              2048.92
9              2241.12
10             2451.36
11             2681.31
12             2932.84
13             3207.96
14             3508.89
15             3838.04
16             4198.08
17             4591.89
18             5022.64
19             5493.80
20             6009.15
21             6572.85
22             7189.43
23             7863.85
24             8601.53
25             9408.41
26             10290.99
27             11256.35
28             12312.28
29             13467.25
30             14730.58
BUILD SUCCESSFUL (total time: 8 seconds)
```

Figure 1. Sample output from project p08.