

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.