

Practice Exercise

8.2 (*The Stock class*) Following the example of the **Circle** class in Section 8.2, design a class named **Stock** that contains:

- A string data field named **symbol** for the stock's symbol.
- A string data field named **name** for the stock's name.
- A **double** data field named **previousClosingPrice** that stores the stock price for the previous day.
- A **double** data field named **currentPrice** that stores the stock price for the current time.
- A constructor that creates a stock with the specified symbol, name, previousClosingPrice, and currentPrice.
- A method named **getChangePercent()** that returns the percentage changed from **previousClosingPrice** to **currentPrice**. The formula to be used is $(\text{currentPrice} - \text{previousClosingPrice}) / \text{previousClosingPrice}$.

Draw the UML diagram for the class and then implement the class (write the code for the class).

Write a test program (application) in which you create a **Stock** object stock1 with the stock symbol **ORCL**, the name **Oracle Corporation**, the previous closing price **34.5**, and the new current price **34.35**. The program should display the price-change percentage of stock1. Create another **Stock** object stock2 with the values of the four data fields read from the user and display its price-change percentage.