

In-class Exercises 04

*University of Wisconsin - La Crosse**Date: February 25*

1. Write Java code to declare and instantiate a 2D array of integers named `randArray`. The number of rows should be determined at random in the range 10 to 50. The length of each row should be determined at random in the range 1 to 100. Then write code to populate the array with random values.

2. Write a Java `main` method that simulates bowling. You must use exactly two arrays to track the following information:

- (a) The names of the bowlers
- (b) The score for each bowler in each frame (there are 10 frames in a game)
- (c) The total score for each bowler

After you have written the code to create the arrays, write code to simulate the game. To keep things simple, assume that in each frame, a player can score between 0 and 10. Determine the scores at random. If you would like, you can try to implement more realistic scoring but it is not required. A player's total score is the sum of the scores in each frame.

3. Suppose that you must record a data reading from a scientific experiment, every second for a year. Create a multidimensional array that will allow a user to access the data by specifying the month, day, hour, minute and second.