

CSCI-101 Programming 1

Lab 11

INSTRUCTIONS

Create a directory named **lab11** in your **labs** directory. Inside the **lab11** directory complete yesterday's exam.

1. Write a class named **SoccerPlayer** that models a soccer player and satisfies the following:

- A. The class has a field to hold a soccer player's name (**String**).
- B. The class has a constructor that initializes the field using data passed into the constructor.
- C. The class has a getter method and a setter method for the field.
- D. The class overrides the **Object** class' **toString()** method to return the soccer player's name.
- E. The class overrides the **Object** class' **equals()** method and considers two soccer players equal if their names are the same.

Create a file named **players.txt** that includes the following text.

```
3
Erling Haaland
Vinicius Jr.
Jude Bellingham
```

2. Write a class named **Exam3** that satisfies the following:

- A. Create a method named **printPlayers()** that has two parameters. The first parameter is a **String** named **fileName**. The second parameter is an array named **arr** that holds references to instances of the **SoccerPlayer** class. The method prints on the first line of the file whose name is in **fileName**, the length of the array. The method then prints to the file the names of the soccer players in the array, one on each line.
- B. Create a method named **main()** that does the following:
 - i. Allocate an array that can hold references to instances of the **SoccerPlayer** class. The length of the array should be equal to the value of the integer on the first line of **players.txt**. Do not assume the length of the array. Read the size from the file.
 - ii. Read the data from **players.txt** and populate the array with references to instances of the **SoccerPlayer** class.
 - iii. Print the names of the players in the array to a file named **players.bkup** using the method named **printPlayers()**.