

CSCI-101 Programming II

Lab 7a

Log onto cs.bridgewater.edu. In your **labs** directory, create a directory named **lab7**.

Create a class named **Player** that satisfies the following.

The class stores the following information about a player:

- username (String)
- level (int)
- number of games played (int)
- number of wins (int)
- win rate (float)

The class has a constructor that takes the username, level, number of games played, and number of wins as arguments and sets the win rate accordingly.

The class has getters for all fields.

****** No setters are needed

The class overrides **toString** which returns a well-formatted string containing the user's username, their level, and their win rate.

The class implements the **Comparable** interface. The natural ordering of **Players** is first based on the players' levels, from highest to lowest. If two players are at the same level, they are ordered based on their win rate, from highest to lowest.

The class override **equals** and considers two players equal if they have the same username.

The class overrides **hashCode**.