

# CSCI-101 Programming I

## Lab 10a

Log onto cs.bridgewater.edu. In your **labs** directory, create a directory named **lab10**.

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 has a single String parameter and sets the username field equal to the value passed into the constructor. This constructor also sets all of the other fields to 0.

The class has a second constructor that has a String parameter named name and three integer parameters. The constructor initializes the first four fields using the data passed into the constructor and then sets the win rate field after computing the win rate using the number of games played and number of wins.

The class has getters for all fields.

The class has setters for the level, number of games played and number of wins fields. When the number of games OR the number of wins is changed via a setter, the setter updates the win rate.

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