## BHCSI Intermediate Java

## Homework Assignment: The Riddle Game

## Problem Statement:

Write a RiddleGame class that asks a user to answer riddles provided by RiddleMasters. You will also have to write the RiddleMaster and Player classes so that the Player is able to play and against multiple Riddle Masters (at least two).

**The RiddleGame class** will have three static methods: main, menu, and status. You will have to create the Player and at least two RiddleMasters for the player to challenge, and allow the player to choose which one to play. The player should also be able to see his own and the RiddleMasters’ banter energy (points that determine if answer correctness). If the player’s banter energy is reduced to zero the player has lost.

The methods your RiddleGame class must have are:

// The main method

public static void main(String args[]);

//A method that prints a menu for the user

public static void menu();

//A method that prints out the status of the Game Masters and the Player

public static void status(Player player, RiddleMaster grok, RiddleMaster korg);

**The RiddleMaster class** will have a constructor, one method called riddle and one method called getBanterEnergy. Here the riddle master tells his joke and Player banter energy score is returned. In particular, if the player answers the joke correct, the method returns two. Alternatively, if she answers the joke incorrectly, the method returns -1. The RiddleMaster’s banter energy is dropped to zero if player answers riddle correctly, but is increased by one point if answered incorrectly. Properties for the RiddleMaster are as follow:

private String name;

private int banter\_energy;

private String riddle;

private String answer;

The methods your RiddleMaster class must have are:

//The constructor which takes in a riddle you’ve created and the answer you’re looking for

public RiddleMaster(String name, int banter\_energy, String riddle, String answer);

//A method that tells a riddle and returns a player score for that riddle. If the RiddleMaster has //already been beaten then it doesn’t tell a riddle and 0 is returned.

public int riddle();

//A method that returns this RiddleMaster’s banter energy.

public int getBanterEnergy();

**The Player class** has a constructor, a banter\_energy property to keep track of the player’s performance and the methods getBanterEnergy and addEnergy.

private int banter\_energy;

The methods your Player class must have are:

//Player constructor that sets the initial banter\_energy to the integer parameter.

public Player(int banter\_energy);

//Returns the Player’s banter energy

public int getBanterEnergy();

//Adds the value energy to the current value of this player’s banter energy.

public void addEnergy(int energy);

Note: Please try to come up with riddles that make me laugh and have a short (one or two word) answer.

# Sample Run:

The following shows one sample run of the program. You should create your own riddles, but follow the format shown here. In this example, the initial banter energy of the player is 4, and the initial banter energy of both riddle masters is 2.

Note: The user input is shown in bold. The rest of the text is output created by the program.

Wish to face a Riddle Master do you?

Choose a Riddle Master to banter with.

1. Grok

2. Korg

3. Player and Riddle Master Banter Engergy Status

4. Quit

**1**

I can be found on a human or beast,

all people should have one at least,

I can be any shape or any size,

and my history you'll despise.

What Am I?

**Face**

Not even close! You're no match for Grok

Wish to face a Riddle Master do you?

Choose a Riddle Master to banter with.

1. Grok

2. Korg

3. Player and Riddle Master Banter Engergy Status

4. Quit

**2**

David's father has three sons : Snap, Krackel, and \_\_\_\_\_

**David**

Correct! Oh my, you are good.

Wish to face a Riddle Master do you?

Choose a Riddle Master to banter with.

1. Grok

2. Korg

3. Player and Riddle Master Banter Energy Status

4. Quit

**3**

Banter Energy Status:

Player: 5

Grok: 3

Korg: 0

Wish to face a Riddle Master do you?

Choose a Riddle Master to banter with.

1. Grok

2. Korg

3. Player and Riddle Master Banter Engergy Status

4. Quit

**4**

Thanks for playing the Riddle Game!