Java Object-Oriented Concepts Unit

Lesson 9 Lab 1: GameBot

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Lesson 9 Lab 1: GameBot

Objective:

The objective of this lab is to gain experience with designing and implementing Java interfaces.

Requirements:

So far in class you have built several games:

- Lucky 7s
- Rock, Paper, Scissors
- Blackjack
- Tic-Tac-Toe
- Hangman

You previously refactored these games so that you could instantiate the game object and then simply call a method (e.g. run(), execute(), or something similar) which caused the game to execute.

In this lab, you will design a Game interface which all of your existing game objects will implement. This interface must define the following capabilities:

1. A method that causes the game to execute
2. A method that returns the name of the game

You will then design and build a GameBot class that does the following:

1. Lists the games in the system
2. Asks the user which game they want to play (or allows them to quit)
3. Executes the game that the user selected
4. After the completion of the selected game, goes back to Step 1 above

The GameBot class must be flexible enough so that it can handle an arbitrary number of games in any order in the system. In other words, you can't just hardcode the names of the games...

Before coding, you must create a flowchart and class diagram (in Dia) for your program.

Please show the diagrams to the instructor before coding.