CS225 Homework 6

Hare and Hound: UML Diagram

Time estimate – 2 hours

Deliverables: You will deliver a single file containing a UML diagram and a text description of the UML as described below.

Only electronic documents submitted via Canvas are acceptable. Hand written and scanned documents are not acceptable. Do not submit a hard copy of your assignment. Do not email your assignment to the course instructor or grader. Late assignments will not be graded.

Problem Description: You are to provide a UML class diagram for the Hound and Hare program described in the previous assignment. Use the following assumptions:

1. The Hound and the Hare are derived from a generic Player class.
2. There is a game manager class, Manager, that manages the race.
3. The Manager class contains the *main* method.
4. The UML will not include any GUI components. Assume console I/O.
5. Anything not specified above is left as a design choice.
6. Setters and getters for the class attributes do not need to be shown in the UML diagram.

Instructions: Describe a software design for the Hound and Hare game and document using the UML format. Each class must be fully defined in terms of attributes (with types) and descriptions of each method in the class. You do not need to provide the details of how the methods work, just describe input-output and their function.

In addition to the UML diagram, provide a text explanation of the diagram. You do not need to provide any software, or perform any programming. This is a design exercise.

Note: Completeness is the key to this assignment. Consider every method that must be created to play the game. There aren’t that many. Provide enough description so that the grader can be convinced that you have a complete design.

Rubric: Per that grading rubric below.

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| **Deliverable** | **Points** | **Awarded** |
| Format | 9 |  |
| Completeness of design | 9 |  |
| Text Explanation of UML | 2 |  |
| Totals | 20 |  |