Alex Zicaro

Software Engineering

Professor

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Assignment 2 Rationale

Since a horse has a unique strategy, it’s object will contain the specific strategy that is related to it. However, the strategy for the horse will be declared when the horse is created, which is when it is in enrolled in the enrollHorse() method in the Race class, which is called by the main method. I decided to go with an interface for Strategy since each strategy will have a unique move method and there will be no use foe declaring a generic Strategy type or using a generic move() method, which would be possible with an abstract base class. Other classes include a Main class to house the main method, the Race class to perform the actual race, a Horse class to hold the specific horse information, as well as the classes for each Strategy type, which implements the Strategy interface. The control loop for the race will exist in the race method within the Race class. This will have a loop to keep track of if the race is still running, determined by if a horse has passed the maximum length, and will loop through each horse and call their respective move() methods. The data structure I will use for holding the horses will be an array. It is easily traversed and can be of the generic type Strategy. I can simply loop through the array to reference each horse.