

HW2 Reflection

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Each horse object has a maxSpeed, position and raceStrategy attribute. The strategy is set through an interface called RaceStrategy which contains a single method called runStrategy (which takes in the maxSpeed and position of the horse). Each of the three possible strategies are class implementations of the RaceStrategy interface and work by calculating the new position of a horse given its maxSpeed and current position. The strategy of a horse can be set in its constructor or by calling the setStrategy method (part of Horse class). The program also utilizes the Race and Main classes. In the Race class, the user can use the enrollHorse method which creates a new horse object and saves it to an array. The Race class also includes a run method which loops through the array of Horses and calls the run and display methods for each Horse object. This loop runs until one of the horses finishes the race (i.e. the done method returns true). Finally, this method displays the winner of the race. The Main class creates a new race object, enrolls five horses to the race, and calls the run method.