

INHERITANCE ACTIVITY ATHLETE

1. Athlete

- a. Complete the Athlete class
 - i. Create constructor set training hours to zero
 - ii. You are to implement all methods contained in Athlete.
- b. A Runner is an Athlete.
 - i. You are to implement any method contained in Athlete.
 - ii. You are to override the `toString` method.
 - iii. You are to implement the `race` method which increments number of races and updates miles raced.
- c. A Marathoner is a long distance Runner. You are to write the Marathoner class according to the following specifications.
 - i. The Marathoner is a subclass of the Runner class.
 - ii. The Marathoner's sport is "Running".
 - iii. However, in order for a race to "count" as a *race* for the Marathoner, the race must be at least 10 miles in length. If it is shorter than 10 miles, the race counts as a training run and the training time credited to `hoursTraining` is 8 1/2 minutes for each mile run. Neither the `numberOfRaces` nor the `milesRaced` is incremented if the race is shorter than 10 miles in length. The Marathoner class will override the Runner's `race` method so that these specifications are met.
- d. Write a tester class to test all methods written.

```
/**
Defines an athlete.
*/
public class Athlete
{

    private String firstName;
    private String lastName;
    private String sport;
    private double hoursTraining;
    /**
Constructs an athlete with a specified name and sport;
hoursTraining is initialized to 0.
@param fname first name of athlete
@param lname last name of athlete
@param sportPlayed sport in which athlete participates
*/
    public Athlete(String fname, String lname, String sportPlayed)
    {
        //code here
    }
}
```

```
}
```

```
public String toString ()  
{  
    //code here  
}
```

```
/**  
Updates hours of training and is specific about type of training.  
@param hours number of hours athlete trained  
*/
```

```
public void train(double hours)
```

```
{  
    //code here  
}
```

```
/**  
gets athlete name  
@return name of athlete  
*/  
public String getName()  
{  
    return (firstName + " " + lastName);  
}
```

```
/**  
gets sport of athlete  
@return sport participated in  
*/  
public String getSport()  
{  
    //code here  
}
```

```
/**  
gets hours trained by athlete  
@return hoursTraining  
*/  
public double getHoursTraining()  
{  
    //code here  
}
```