

Coding Assignment Instructions (Task 2 of 2)

Create Class *Boat*

Create and Run Class *BoatTest*

Create class *Boat* that in a package named *net.ligent.students.transportation* . Use the same approach that I demonstrated in the tutorial demo for *Motorcycle* and *MotorcycleTest*. See more detailed requirements below.

Create JUnit test class *MotorcycleTest*. Use the same **Test Driven Development** approach that I demonstrated in the tutorial demo for *Motorcycle* and *MotorcycleTest*. See more detailed requirements below.

Requirements for *Boat*

The *Boat* class should be modeled after the *Car* and *Motorcycle* classes that have been shown in the tutorial Demos. *Boat* should have the following instance variables:

- String make
- String model
- int year
- String color
- int length (in feet)
- String vehicleIdNumber

Create the following constructors:

- No-argument constructor
- A constructor that accepts values for all fields (make, model, year, color, length, vehicleIdNumber)
- A constructor that accepts values for all fields except vehicleIdNumber

When generating the *equals()* method, make sure that the *equals()* method does not consider the vehicleIdNumber as significant.

Create one worker method named *determineAnnualRegistrationFee()*. It should take no parameters and return a double. The fee amount will be based upon the length of the boat (in feet):

Less than 16 ft.	28.00
16 to 26 ft.	60.00
27 to 40 ft.	160.00
41 ft. or longer	210.00

Requirements for *BoatTest*

Create a standard JUnit test client for *Boat* named *BoatTest*. Place this test code in a separate source code folder named *test* within your Eclipse project. Remember to place *BoatTest* in the same package as you placed *Boat* (just in a different source code folder).

Create test cases for each constructor and method. Remember to create a separate JUnit test case method for each test case. Use the tutorial demos as examples of which test cases are needed. Be careful to include enough test cases for *equals()* and *determineAnnualRegistrationFee()*.