Binary Search practice

1. Using the example # 3 posted ON 2/1/16 modify it as follows:
2. Add a method called binarySearch in the service class Car. The method should be as presented in the example slide in class (from the lecture presentation). The example code from slide 12 of the lecture needs to be modified to comply with the searching of an array of Car objects instead of an array of int types!!!!!!
3. In the client class add an invocation to that method to search for the first car object whose number of cylinders is 6. This code should be at the end of the existing code!
4. Display the index within the array if found or a message that it was not found. If found display also the id number of that Car object and its price.

The output should look like (the added output is in larger font at the bottom):

C:\CS116\Examples\BinarySearch>java CarClient

TWODOORSSPORTS

TWODOORSSPORTS

FOURDOORSSEDAN

HEAVYTRACK

LIGHTTRUCK

OTHER

FOURDOORSSEDAN

Number of cylinders is 6 Car Type= FOURDOORSSEDAN Car ID= 3

Number of cylinders is 6 Car Type= FOURDOORSSEDAN Car ID= 7

cars 3 and 7 are equal

The price of the car with id 1 is 17062.08

Number of cylinders is 4 Car Type= TWODOORSSPORTS Car ID= 1

The price of the car with id 2 is 8531.04

Number of cylinders is 2 Car Type= TWODOORSSPORTS Car ID= 2

The price of the car with id 3 is 17752.56

Number of cylinders is 6 Car Type= FOURDOORSSEDAN Car ID= 3

The price of the car with id 4 is 51520.0

Number of cylinders is 8 Car Type= HEAVYTRACK Car ID= 4

The price of the car with id 5 is 20160.0

Number of cylinders is 6 Car Type= LIGHTTRUCK Car ID= 5

The price of the car with id 6 is 4977.28

Number of cylinders is 2 Car Type= OTHER Car ID= 6

The price of the car with id 7 is 17752.56

Number of cylinders is 6 Car Type= FOURDOORSSEDAN Car ID= 7

The total money is $137,755.52

Number of cylinders is 2 Car Type= TWODOORSSPORTS Car ID= 2

Number of cylinders is 2 Car Type= OTHER Car ID= 6

Number of cylinders is 4 Car Type= TWODOORSSPORTS Car ID= 1

Number of cylinders is 6 Car Type= LIGHTTRUCK Car ID= 5

Number of cylinders is 6 Car Type= FOURDOORSSEDAN Car ID= 7

Number of cylinders is 6 Car Type= FOURDOORSSEDAN Car ID= 3

Number of cylinders is 8 Car Type= HEAVYTRACK Car ID= 4

The first car object with 6 cylinders is the object with id: 5

The price of that car is: 20160.0