

UNK CSIT 150

Lab 2: Fundamentals of Classes

Objectives

- Practice defining a class
- Practice the use of object data members in a class

General Requirements

In this lab, you must write your code following the proper programming style. The bottom line is:

- Use indentation to show the logical structure of your code
- Use blank line to separate code blocks and give each code block a comment
- Give documentation comment to the class and each method

Programming Practice

Write an application that simulates driving cars.

1. Using the code attached with this program on blackboard, update the **Car** class:
 - a. Finish the following methods:
 - **move** – Move the car the distance it can travel at its current speed for 1 minute. (Update the distance traveled variable.) Be sure this method is using floating point division, not integer division.
 - **accelerate**- Add 5 miles per hour to current speed. Remember, the most the current speed can be is the maxSpeed of the car.
 - **brake** - Subtracts 5 miles per hour from current speed. The minimum speed for the current speed is 0.
 - b. Add a **copy** constructor. (This is bonus)
 - c. Add public mutator methods for the car owner, maxSpeed, distanceTraveled, and currentSpeed. (The move, accelerate, and brake methods also act as mutator methods for these variables.)
 - d. Use JavaDoc documentation for each method.
2. Modify the class named **TestCar**. Using the comments, add statements to finish the program as specified.

Generate JavaDoc (Formal Technical Documents)

Follow the steps below to generate professional technical documents.

1. Write documentation within the documents for each class and method you have just created, if you have not done so.
2. Go to menu "Tools -> Generate Javadoc ..."
3. In the window that pops up, choose the java file for which you want to generate document.
4. Specify the output directory – usually, we name this “docs” and store this in the project folder.
5. Click the "ok" button.
6. Use the file explorer to check the document folder and you will see a file named index.html.
7. Use a browser to open the index.html file and see how the words you input in the documentation comments have been shown on this technical document.