CIS 36A– 25th In Class / Lab Assignment – **10 Points**

Student Name _____ **Student ID** _____ **Point Total**

http://beginnersbook.com/java-tutorial-for-beginners-with-examples/

http://beginnersbook.com/2013/04/java-exception-handling/

Pg 356 – 366 Java Programming *A comprehensive Introduction*

(Information on throw and throws)

Section 1: Define

https://weblogs.java.net/blog/potty/archive/2014/01/22/introduction-class-diagrams

http://pages.cs.wisc.edu/~hasti/cs302/examples/UMLdiagram.html

UML DIAGRAM-

The UML representation of a class is a rectangle containing three compartments stacked vertically.

CLASS DIAGRAM- (Explain 3 parts that each Diagram needs)

The top compartment shows the class's name. The middle compartment lists the class's attributes. The bottom compartment lists the class's operations. When drawing a class element on a class diagram, you must use the top compartment, and the bottom two compartments are optional. (The bottom two would be unnecessary on a diagram depicting a higher level of detail in which the purpose is to show only the relationship between the classifiers.) Figure 1 shows an airline flight modeled as a UML class. As we can see, the name is Flight, and in the middle compartment we see that the Flight class has three attributes: flightNumber, departureTime, and flightDuration. In the bottom compartment we see that the Flight class has two operations: delayFlight and getArrivalTime.

ACTIVE CLASS-

following six situations qualify as active uses of a type

1. execution of 'new' instruction

2. Invocation of static method of a class.

3. Use or assignment of a static field declared by a class or interface, except for static final fields.

4. Invocation of certain reflective methods in Java API

5. Initialization of a subclass of a class

6. Designation of a class as the initial class(with main() method) when JVM starts

PASSIVE CLASS-

Example of passive use:

A use of a non-final field is an active use of only class that declares the field.

A static field declared in a class might be referred to via a subclass. This is a passive use of the subclass and active use of the super class.

This use will not trigger the initialization of the subclass.

VISIBILITY MARKERS-

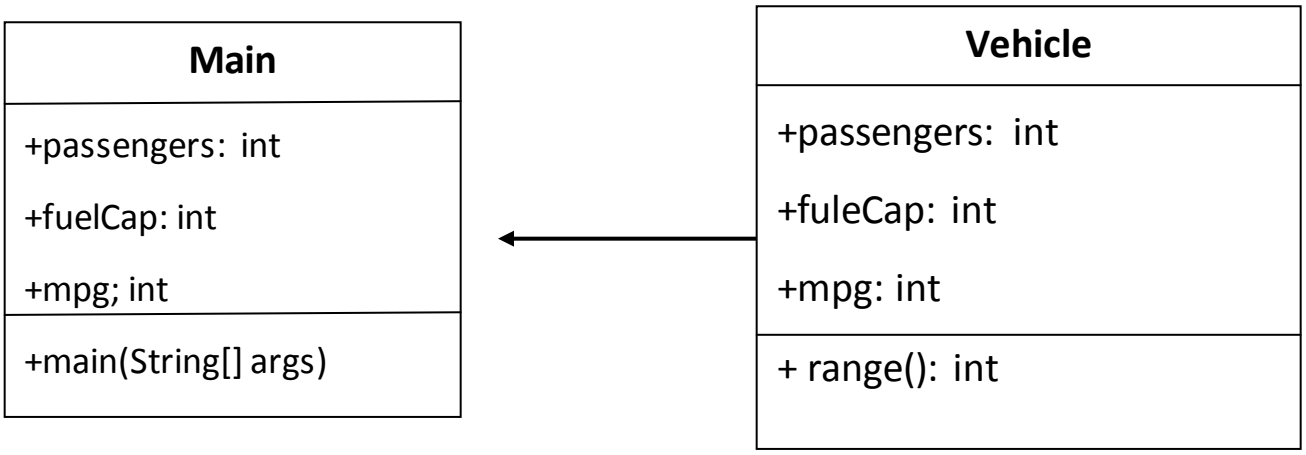
this visibility level is assigned to any method or property that is not given one of the others. Public does not need to be declared, but I recommend declaring it to be explicit.

ASSOCIATIONS-

The association relationship is a way of describing that a class knows about and holds a reference to another class. This can be described as a "has-a" relationship because the typical implementation in Java is through the use of an instance field. The relationship can be bi-

directional with each class holding a reference to the other. Aggregation and composition are types of association relationships.

Example of UML Diagram for car type programmer created class example.



Programming Tasks:

Task 1- TASK 1: Create an UML Diagram for your program from **Assignment 13, TASK 2.**

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