**Section 1: Define / Answer**

1. package- A **Java package** is a mechanism for organizing **Java** classes into namespaces similar to the modules of Modula, providing modular programming in **Java**. **Java packages** can be stored in compressed files called JAR files, allowing classes to be downloaded faster as groups rather than individually.

jar file- JAR files are packaged with the ZIP file format, so you can use them for tasks such as lossless data compression, archiving, decompression, and archive unpacking. These tasks are among the most common uses of JAR files, and you can realize many JAR file benefits using only these basic features.

**UML Diagram**

<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-

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

VISIBILITY MARKERS-

ASSOCIATIONS-

**Vehicle**

+passengers: int

+fuleCap: int

+mpg: int

+ range(): int

**Main**

+passengers: int

+fuelCap: int

+mpg; int

+main(String[] args)

Task 1:

**USE OBJECT ORIENTATED PROGRAM DESIGN TO SOLVE PROBLEM**

Update Assignment #11, Task 1.

Create a separate package to do the following.

Create a Parent SuperClass Student. Containing First Name, Last Name, private DOB, Social Security Number.

Create a subclass containing protected class variables Street Address, and Zip Code

Create a subclass containing public Student ID number, Major.

Create a separate Project/package that executes the program.

The program should execute in way that student objects are created. Then create a menu where the user can print various portions of information about a given student.

Override the method for printing in each class to display the required print information.

Create private modifiers for sensitive materials.

Return redacted versions of social security, DOB.

For example – Social security = XXX-XX-8010

DOB – XX/XX/1980

Attach Snipping Photos Below

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**\* Main Menu: \***

**\* Enter # to run program or Quit \***

**\* 1) Print Student Name \***

**\* 2) Print Student Address \***

**\* 3) Print all Student info \***

**\* 4) Quit \***

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