ASSIGNMENT 4

1.)You have been approached by a client who owns a hospital to develop a program which creates an outer class Hospital having data fields hospitalName, hospitalAddr, and gethospitalName() method and an inner class Doctor having data field docName, and setdocAddr(),

getdocAddr() methods and access outer class members with inner

class by ’this’ keyword. create Demo class to complete the rest of the

program.

2.)You have been given a task to develop a program which has outer

class OUTER and Inner private class INNER which is used to display

your name. Outer class contains a method which is used to verify the

PASSWORD entered by the user and if the entered PASSWORD is

correct, then call the inner class method to display your name. Write

a Demo class and make necessary calls to access OUTER and INNER

classes.

3.)Create a Class Engine with attributes engineID (int), engineType

(String), horsepower (int), engineWeight (float). add constructors,

getter, setters and toString () for Engine class. Create a class Car with

attributes as carRegistrationNumber (String), carMake (String) which

is name of the car company, carMode l(String), yearOfPurchase (int),

and color (String), and carEngine of Engine type. Add constructors,

getter, setters and toString () for Car class. Access the methods of Car

class from main () of Demo class. Create a class ShowRoom with

attributes cars as array of references which is car type, a static variable

noOfCars(int), and methods addCar (), updateCar (), displayAllCar (),

displayCarBasedOnModel (). Develop a menu driven program in class

Demo with following menu.

1. Add a car

2. Update details of the car

3. Display details of all cars

4. Display car based on model

4.) Explain SINGLETON CLASS AND ITS TYPES WITH EXAMPLE