

WXES1116 Programming I
Semester 1 2014/2015
Lab 8: Class II

1. Define a class Point for three dimensional points (x,y,z). The class contains a constructor, a copy constructor, a method to compute the point's distance from the origin (0,0,0) and display method to display the point and the distance. Besides, include a method that display the number of Point object that has been created in the program. Create a Tester class to test the program.
2. Define a class DateTime. The class accepts day, month, year, hour, minute and second. The class contains a constructor with the above parameters. The class contains the method to add second, the method to add minute and second and the method to add hour, minute and second. Use the same method name for those methods. Besides, the class contains a method to display the current date and the day. Create a Tester class to test the program. You can use Java Calendar class to solve the problem.
3. You operate several burger stalls distributed throughout town. Each burger stall has an ID and the number of burger sold for the day. The class consists of a constructor to initialize the instance variables and a sold method that increment the number of burger sold by parameter value. The class also contains a variable and method that tracks the total number of burgers sold in all stalls. Display the total burger sold by each stall and the total number of burgers sold in all stalls.
4. Define class money. The class is used to calculate the number of note and coins for a given amount of money. The available notes are RM100, RM50, RM10, RM5 and RM1. The available coins are 50cent, 20cent, 10cent and 5 cent. The class needs to round up the amount according to the table below. The class also contains addition and subtraction method to add or subtract two objects.

Before Rounding	After Rounding
10.11, 10.12	10.10
10.13, 10.14, 10.16, 10.17	10.15
10.18, 10.19	10.20

5. Write a program to teach arithmetic for children. The program can test addition and subtraction number below 20. The class allows two tries per problem. The first attempt score 5 points while the second attempt scores 2 points. Create a Tester class to test the program for two children. The children that score more than 30 points win the game.