Soft 7004 – OOP1 - Labs

## LAB 1: Completion Date: 22th September 2017

### Q1 - Duration – 1/2 week

Part a) Write an application using an **int** and **String** variable, a **while** loop and two **if** tests to output the following song to the screen:

99 bottles of beer on the wall

99 bottles of beer

Take one down

Pass it around

(Line space)

98 bottles of beer on the wall

(Line Space)

Note: the above screen is to be repeated until you reach 0

However when you reach 1 it is only 1 bottle ….

The final line is “No more bottles of beer on the wall”

Part b) When you have the program working as above, alter it to deal with any number of bottles where the number is entered from the keyboard.

**Q2**

Write a program called TestStudentPartA that will allow a teacher to input student details such as student first name, student second name and examination mark at the keyboard for at least 20 students. **Once** all examination marks have been entered, the program **must display the mark and grade** for **each** of the students as follows:

“William Buckley received a Merit for his mark of 68”.

*And so on for the rest of the students*

The grades are given by the following table:

Mark range grade

85 – 100 distinction

65 – 84 merit

40 – 64 pass

0 - 39 fail

**Q3**

Part a) Write the code for the following class

Person

stars: int

phone: String

name: String

Person(int, String, String)

jump()

jump(int)

toString(): String

print()

Note: The first jump() method outputs: “I jumped”, whereas the second outputs: “I jumped (int) Times!” e.g. I jumped 5 times. **Remember to do your sets (mutators) and gets (accessors)**.

Part b) Write a main class called TestPerson that creates a new person and gets the person to jump using both methods. Display your person’ details on the screen.

**Remember to test your sets and gets.**