**CM 1601 Programming Fundamentals**

**Tutorial 1**

**Basic types of Java programs.**

* Java console applications
* Java GUI applications
* Java Servlet
* Android Application

**In order to write a Java program, we need:**

* An editor: Notepad, WordPad, MS-DOS
* A Java compiler and Platform–Java Runtime Environment (JRE)

**Write a program to print, Hello, Welcome to Java.**

\*This program demonstrates how to write a simple java program.

class Hello {

public static void main(String[] args) {

System.out.println("Hello, Welcome to Java");

}

}

**Important:**

* Name of Class
* { - begin } - end
* Main method (function). Java will perform the commands under this method
* Semi Colon; indicates end of a command
* Java like C and C++ is case sensitive. i.e. if you type the first part of the as Public static void, Your program will not work.

**Compiling & Running a Java Program**

* To Compile your Java Program use the javac tool.
* E:\>javac Hello.java
* The compiler would create java byte code. These files have an extension of .class
* E:\>**java Hello**

**Tasks**

1. Write a program that produces the following output

Hello World!

This is easy.

Goodbye world!

1. Write a Java program using one println() statement to print your name and age on the screen. Your program should format the output as follows.

Hello! I am Sam. I am

1. years old.
2. Which of these are not allowed as variable names?
3. The cost
4. 2Much
5. Much2
6. \*star
7. My999Var
8. Write a program to declare a variable for each variable type, then initialize  
   each variable to its minimum and maximum value and print the result. Then try adding  
   and subtracting 1 from each respectively. Describe what happens and why

int myInt = 2147483647;  
System.out.println(myInt + 1);

1. Write a program that will read in a Centigrade temperature and then display the Fahrenheit temperature using the formula

F = (9.0/5)\*C + 32

1. Assume the variable “v1”references a double value. Write a statement that displays the value rounded to two decimal points

1. A company employs Manual, Skilled and Management people. Manual earn £500 per week, Skilled earn £700 per week and Management earn £800 per week.  
   Write a program that reads in how many manual, skilled and management people there are in a company and then print out the wage bill.  
   The program should additionally print out the approximate tax to pay which is 20% of  
   the total wage bill.
2. Assume the following statement has been executed:

number = 1234567.456

Write a Java statement that displays the value referenced by the number variable formatted as  1,234,567.5

1. Write a program that draws the following figures them next to each other like below.

\* \* \* \* \*

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

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

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