



Assignment Title:

Task to do

Coursework type:

Individual

Module Name:

ST4003CMD-Programming: Professional Practice

Intake Name :

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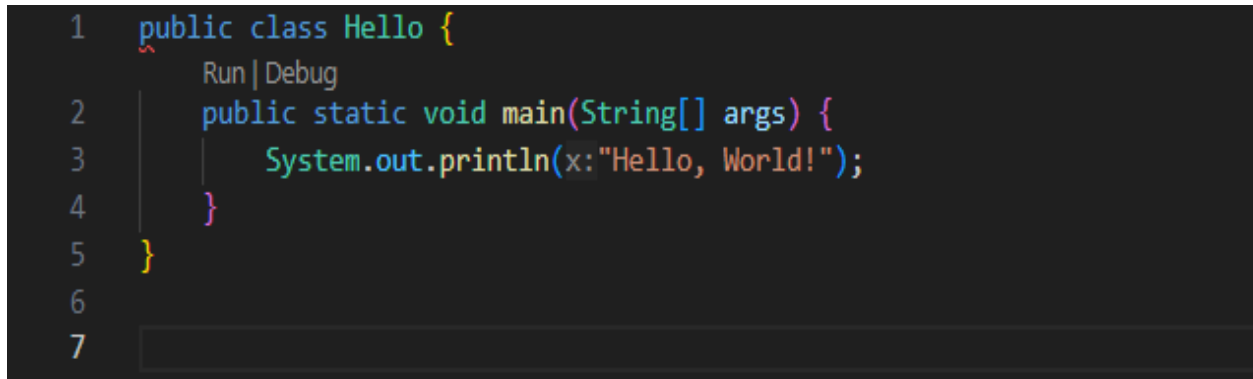
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1. Write a program that prints **Hello World!** to the console. Save the program as Hello.java.

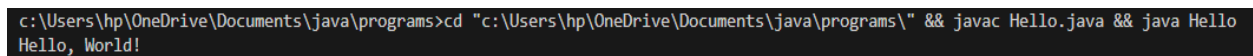
A screenshot of a code editor with a dark background. The code is written in Java and is as follows:

```
1 public class Hello {  
    Run | Debug  
2     public static void main(String[] args) {  
3         System.out.println(x:"Hello, World!");  
4     }  
5 }  
6  
7
```

The code is color-coded: 'public' is blue, 'class' is green, 'Hello' is yellow, '{' is blue, 'main' is blue, 'String' is green, 'args' is yellow, '{' is blue, 'System.out.println' is blue, 'x:' is red, 'Hello, World!' is yellow, '}' is blue, and '}' is blue. Line numbers 1 through 7 are on the left side of the editor.

Figure 1: Hello world program

Output:

A screenshot of a terminal window with a dark background. The command prompt shows the following command and output:

```
c:\Users\hp\OneDrive\Documents\java\programs>cd "c:\Users\hp\OneDrive\Documents\java\programs\" && javac Hello.java && java Hello  
Hello, World!
```

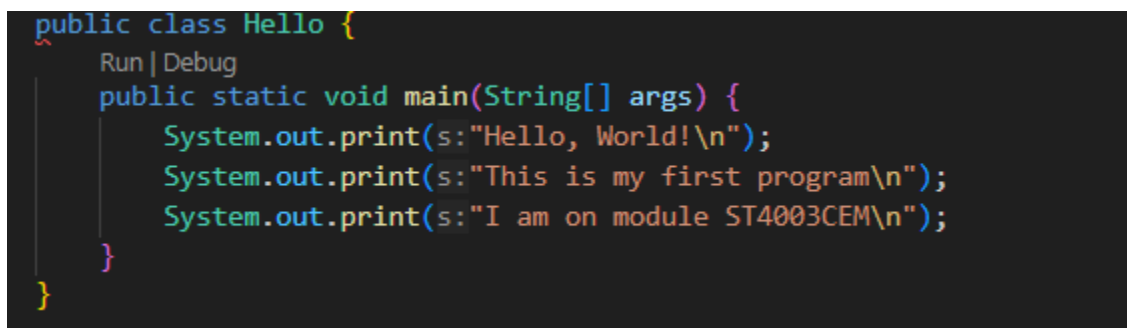
Figure 2: output of Hello world program

2. Extend/Modify the above program to print two additional lines:

This is my first program

I am on module ST4003CEM

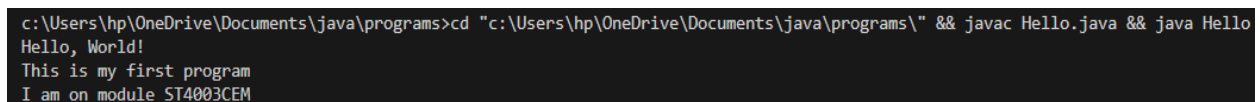
System.out.print (**not** println) and produces the same output.



```
public class Hello {  
    Run | Debug  
    public static void main(String[] args) {  
        System.out.print(s:"Hello, World!\n");  
        System.out.print(s:"This is my first program\n");  
        System.out.print(s:"I am on module ST4003CEM\n");  
    }  
}
```

Figure 3: multiple lines

Output:

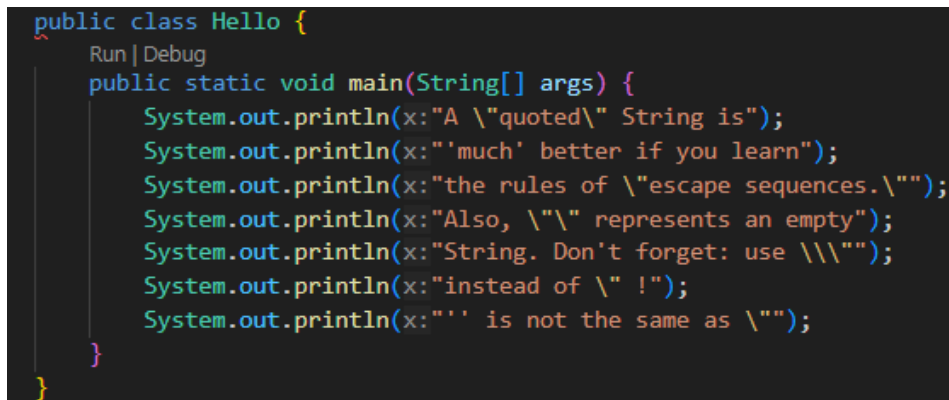


```
c:\Users\hp\OneDrive\Documents\java\programs>cd "c:\Users\hp\OneDrive\Documents\java\programs\" && javac Hello.java && java Hello  
Hello, World!  
This is my first program  
I am on module ST4003CEM
```

Figure 4: output of multiple lines

3. Write a program that prints the following output:

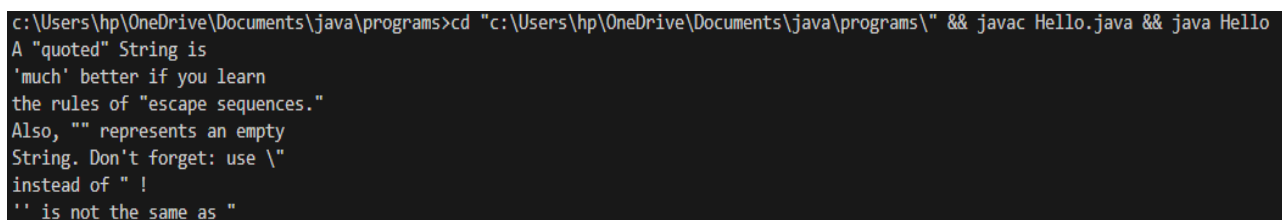
A "quoted" String is
'much' better if you learn
the rules of "escape sequences."
Also, "" represents an empty
String. Don't forget: use \"
instead of " !
" is not the same as "



```
public class Hello {  
    Run | Debug  
    public static void main(String[] args) {  
        System.out.println(x:"A \"quoted\" String is");  
        System.out.println(x:"'much' better if you learn");  
        System.out.println(x:"the rules of \"escape sequences.\"");  
        System.out.println(x:"Also, \"\" represents an empty");  
        System.out.println(x:"String. Don't forget: use \\");  
        System.out.println(x:"instead of \" !");  
        System.out.println(x:"' is not the same as \"");  
    }  
}
```

Figure 5: Escape sequence

Output :

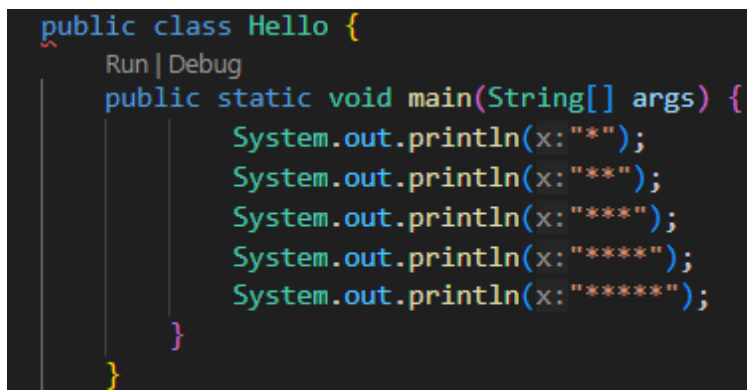


```
c:\Users\hp\OneDrive\Documents\java\programs>cd "c:\Users\hp\OneDrive\Documents\java\programs\" && javac Hello.java && java Hello  
A "quoted" String is  
'much' better if you learn  
the rules of "escape sequences."  
Also, "" represents an empty  
String. Don't forget: use \"  
instead of " !  
' is not the same as "
```

Figure 6: Output of escape sequence

4. WAP that prints the following pattern:

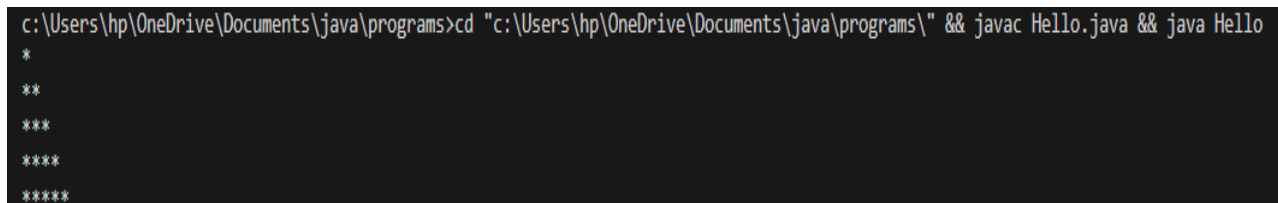
```
*  
* *  
* * *  
* * * *  
* * * * *
```



```
public class Hello {  
    Run | Debug  
    public static void main(String[] args) {  
        System.out.println(x: "*");  
        System.out.println(x: "**");  
        System.out.println(x: "***");  
        System.out.println(x: "****");  
        System.out.println(x: "*****");  
    }  
}
```

Figure 7: Pattern (triangle)

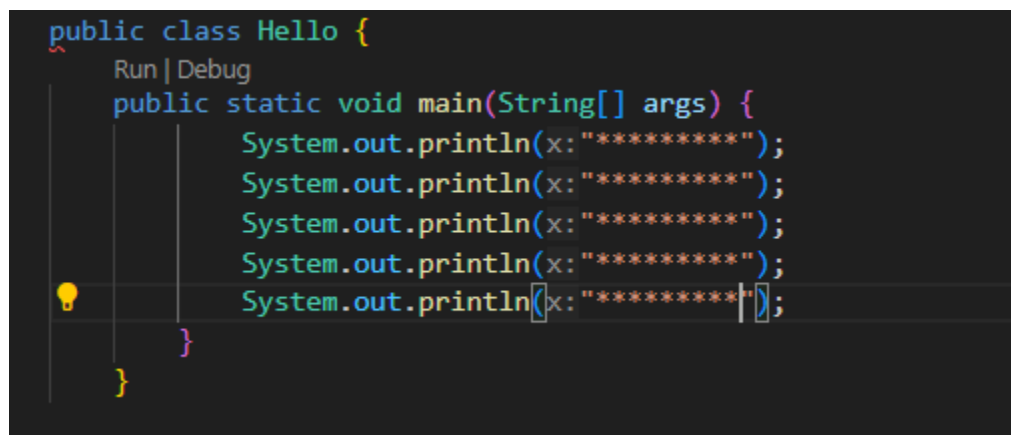
Output:



```
c:\Users\hp\OneDrive\Documents\java\programs>cd "c:\Users\hp\OneDrive\Documents\java\programs\" && javac Hello.java && java Hello  
*  
**  
***  
****  
*****
```

Figure 8: Output of pattern (triangle)

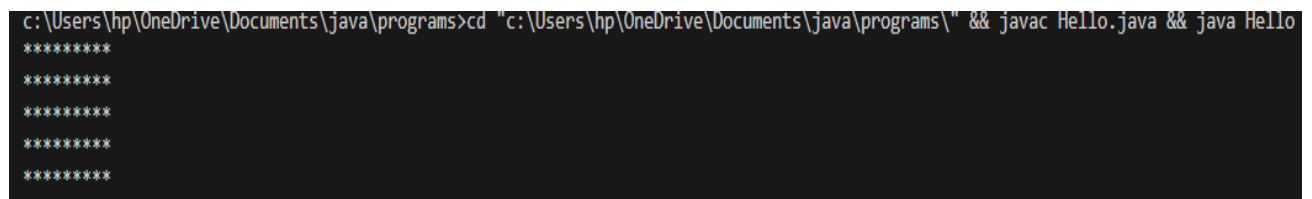
5. WAP prints the following pattern:



```
public class Hello {  
    Run | Debug  
    public static void main(String[] args) {  
        System.out.println(x: "*****");  
        System.out.println(x: "*****");  
        System.out.println(x: "*****");  
        System.out.println(x: "*****");  
        System.out.println(x: "*****");  
    }  
}
```

Figure 9: pattern (rectangle)

Output:



```
c:\Users\hp\OneDrive\Documents\java\programs>cd "c:\Users\hp\OneDrive\Documents\java\programs\" && javac Hello.java && java Hello  
*****  
*****  
*****  
*****  
*****
```

Figure 10: Output of pattern (rectangle)

6. WAP that prints the following output:

A well-formed Java program has a main method with { and } braces.

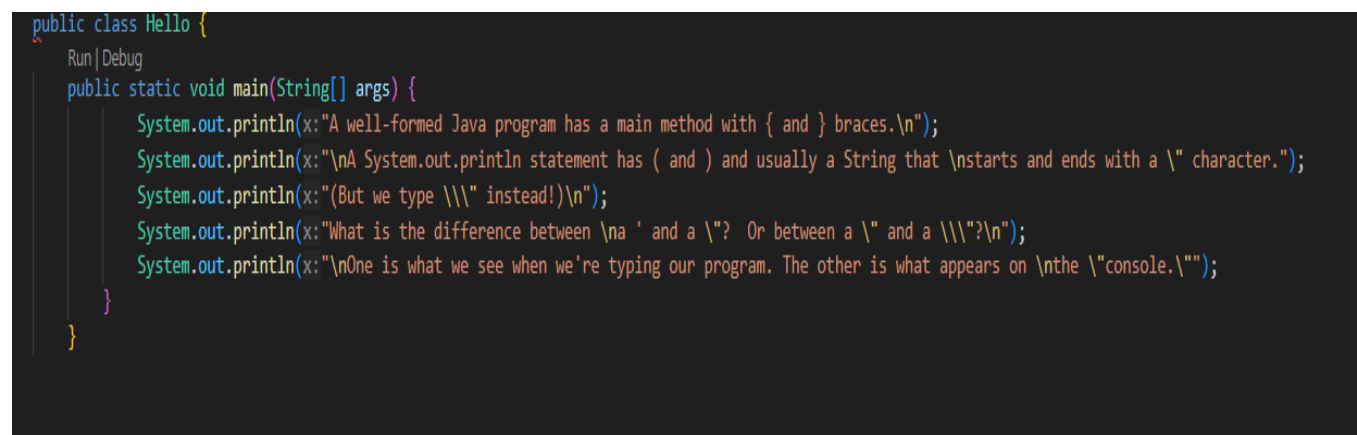
A System.out.println statement has (and) and usually a String that starts and ends with a " character.

(But we type \" instead!)

What is the difference between

a ' and a "? Or between a " and a \"?

One is what we see when we're typing our program. The other is what appears on the "console."



```
public class Hello {  
    Run | Debug  
    public static void main(String[] args) {  
        System.out.println(x:"A well-formed Java program has a main method with { and } braces.\n");  
        System.out.println(x:"\nA System.out.println statement has ( and ) and usually a String that \nstarts and ends with a \" character.");  
        System.out.println(x:"(But we type \\\" instead!)\n");  
        System.out.println(x:"What is the difference between \na ' and a \"? Or between a \" and a \\\"?\n");  
        System.out.println(x:"\nOne is what we see when we're typing our program. The other is what appears on \nthe \"console.\\");  
    }  
}
```

Figure 11 : well-formed program

Output :

```
c:\Users\hp\OneDrive\Documents\java\programs>cd "c:\Users\hp\OneDrive\Documents\java\programs\" && javac Hello.java && java Hello
A well-formed Java program has a main method with { and } braces.

A System.out.println statement has ( and ) and usually a String that
starts and ends with a " character.
(But we type \" instead!)

What is the difference between
a ' and a "? Or between a " and a \"?

One is what we see when we're typing our program. The other is what appears on
the "console."
```

Figure 12 : Output of well-formed program