Task 1

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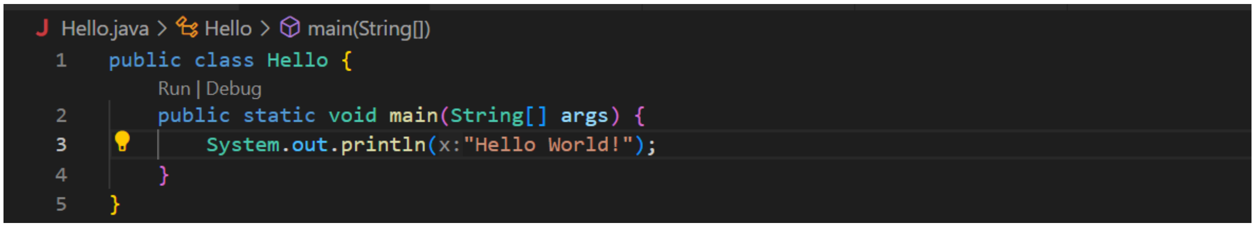
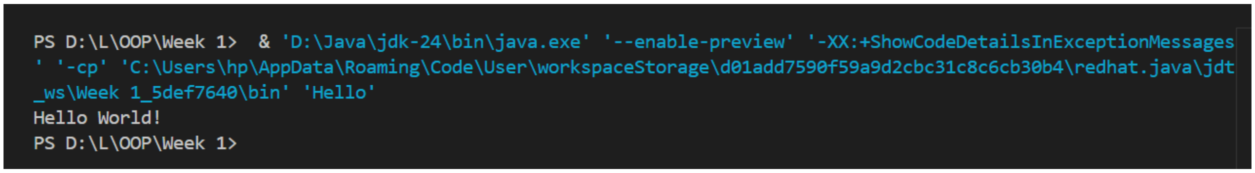
BscHons Computing, Softwarica College of IT & E-commerce
ST4003CEM Object Oriented Programming
Submitted to Prabisha Khadka
29th August 2025

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



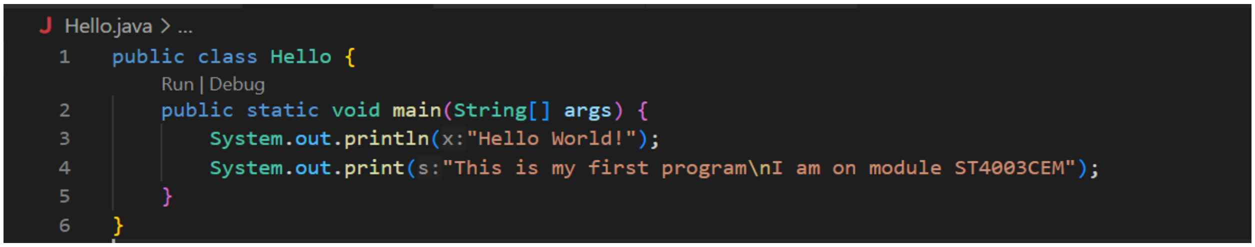
```
public class Hello {
    public static void main(String[] args) {
        System.out.println(x:"Hello World!");
    }
}
```

Output:



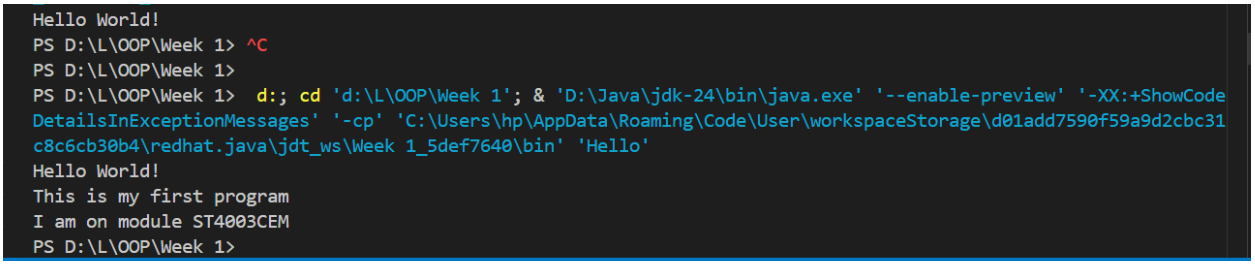
```
PS D:\L\OOP\Week 1>  & 'D:\Java\jdk-24\bin\java.exe' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages
' '-cp' 'C:\Users\hp\AppData\Roaming\Code\User\workspaceStorage\d01add7590f59a9d2cbc31c8c6cb30b4\redhat.java\jdt
_ws\Week 1_5def7640\bin' 'Hello'
Hello World!
PS D:\L\OOP\Week 1>
```

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.



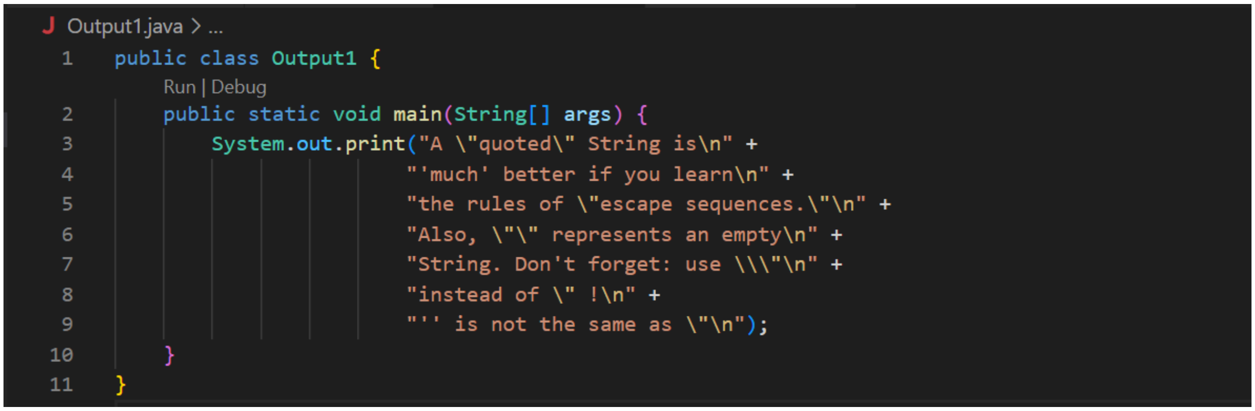
```
public class Hello {
    public static void main(String[] args) {
        System.out.println(x:"Hello World!");
        System.out.print(s:"This is my first program\nI am on module ST4003CEM");
    }
}
```

Output:



```
Hello World!
PS D:\L\OOP\Week 1> ^C
PS D:\L\OOP\Week 1>
PS D:\L\OOP\Week 1>  d:; cd 'd:\L\OOP\Week 1'; & 'D:\Java\jdk-24\bin\java.exe' '--enable-preview' '-XX:+ShowCode
DetailsInExceptionMessages' '-cp' 'C:\Users\hp\AppData\Roaming\Code\User\workspaceStorage\d01add7590f59a9d2cbc31
c8c6cb30b4\redhat.java\jdt_ws\Week 1_5def7640\bin' 'Hello'
Hello World!
This is my first program
I am on module ST4003CEM
PS D:\L\OOP\Week 1>
```

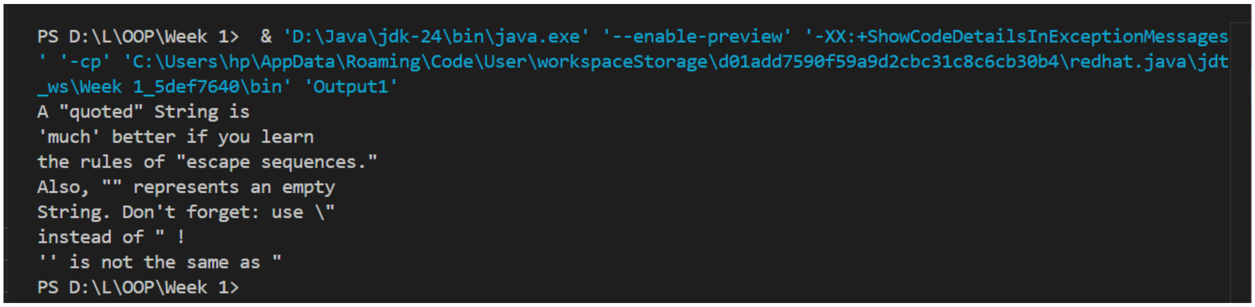
3. Write a program that prints the following output:
A "quoted" String is
'much' better if you learn
the rules of "escape sequences."
Also, "" represents an empty
String. Don't forget: use \"
instead of " !
" is not the same as "



Output1.java > ...

```java
public class Output1 {
    Run | Debug
    public static void main(String[] args) {
        System.out.print("A \"quoted\" String is\n" +
                        "'much' better if you learn\n" +
                        "the rules of \"escape sequences.\"\n" +
                        "Also, \"\" represents an empty\n" +
                        "String. Don't forget: use \\\"\n" +
                        "instead of \" !\n" +
                        "'' is not the same as \"\n");
    }
}
```

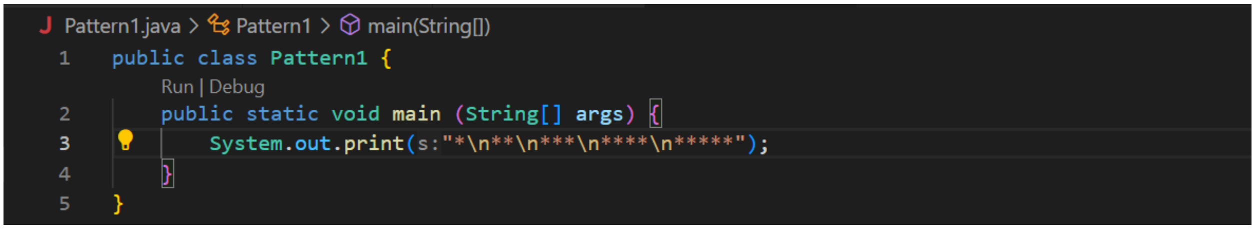
Output:



```
PS D:\L\OOP\Week 1>  & 'D:\Java\jdk-24\bin\java.exe' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages
' '-cp' 'C:\Users\hp\AppData\Roaming\Code\User\workspaceStorage\d01add7590f59a9d2cbc31c8c6cb30b4\redhat.java\jdt
_ws\Week 1_5def7640\bin' 'Output1'
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 "
PS D:\L\OOP\Week 1>
```

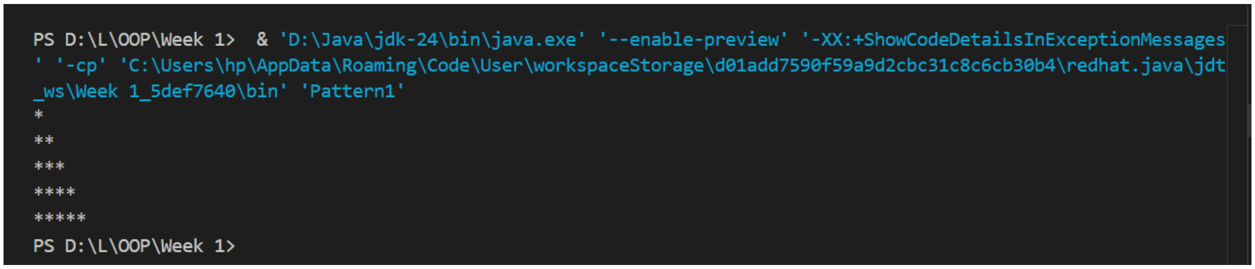
4. WAP that prints the following pattern:

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



```java
public class Pattern1 {
    public static void main (String[] args) {
        System.out.print(s:"*\n**\n***\n****\n*****");
    }
}
```

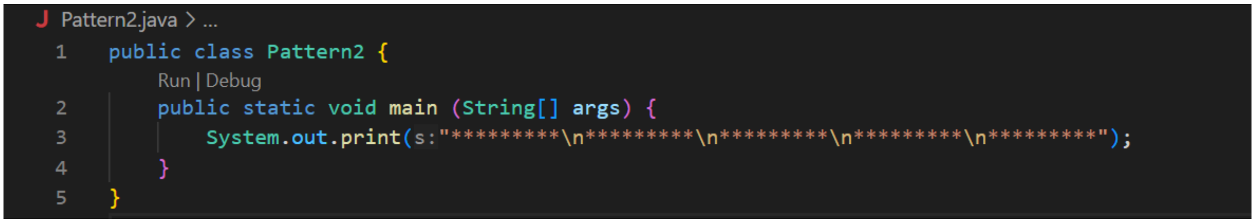
Output:



```
PS D:\L\OOP\Week 1>  & 'D:\Java\jdk-24\bin\java.exe' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages
' '-cp' 'C:\Users\hp\AppData\Roaming\Code\User\workspaceStorage\d01add7590f59a9d2cbc31c8c6cb30b4\redhat.java\jdt
_ws\Week 1_5def7640\bin' 'Pattern1'
*
**
***
****
*****
PS D:\L\OOP\Week 1>
```

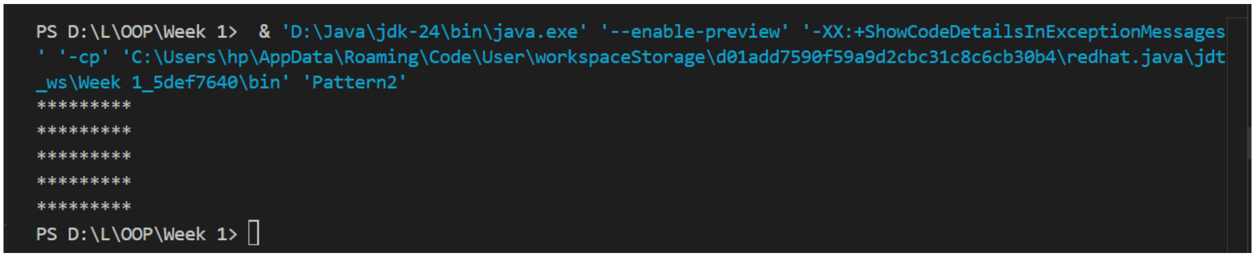
5. WAP prints the following pattern:

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



```java
public class Pattern2 {
    public static void main (String[] args) {
        System.out.print(s:"*********\n*********\n*********\n*********\n*********");
    }
}
```

Output:

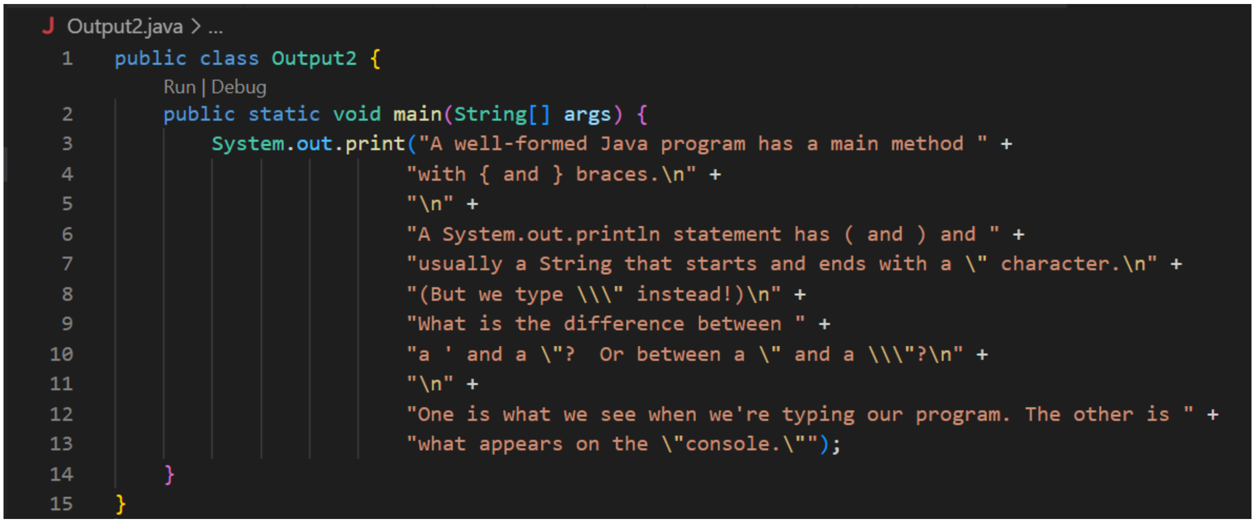


```
PS D:\L\OOP\Week 1>  & 'D:\Java\jdk-24\bin\java.exe' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages
' '-cp' 'C:\Users\hp\AppData\Roaming\Code\User\workspaceStorage\d01add7590f59a9d2cbc31c8c6cb30b4\redhat.java\jdt
_ws\Week 1_5def7640\bin' 'Pattern2'
*********
*********
*********
*********
*********
PS D:\L\OOP\Week 1>
```

6. WAP that prints the following output:
A well-formed Java program has a main method with { and } braces.

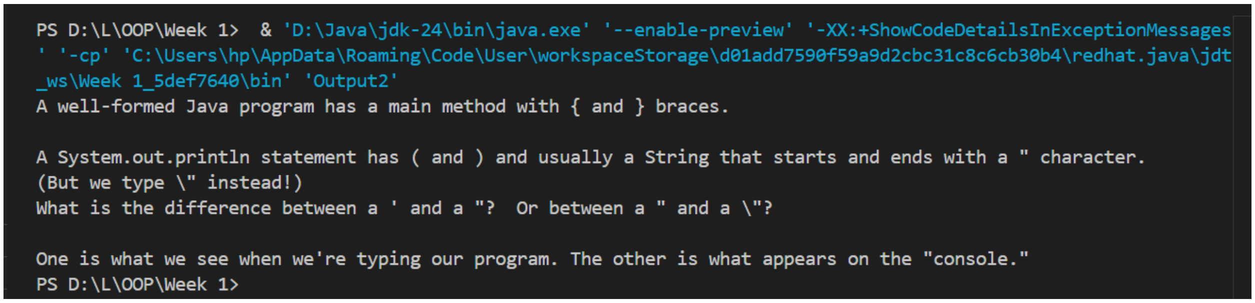
A System.out.println statement has (and) and usually a String that starts and ends with a " character.
(But we type \" instead!)
What is the difference between
a ' and a "? Or between a " and a \"?

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



```java
public class Output2 {
    public static void main(String[] args) {
        System.out.print("A well-formed Java program has a main method " +
                                "with { and } braces.\n" +
                                "\n" +
                                "A System.out.println statement has ( and ) and " +
                                "usually a String that starts and ends with a \" character.\n" +
                                "(But we type \\\" instead!)\n" +
                                "What is the difference between " +
                                "a ' and a \"?  Or between a \" and a \\\"?\n" +
                                "\n" +
                                "One is what we see when we're typing our program. The other is " +
                                "what appears on the \"console.\"");
    }
}
```

Output:



```
PS D:\L\OOP\Week 1>  & 'D:\Java\jdk-24\bin\java.exe' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages
' '-cp' 'C:\Users\hp\AppData\Roaming\Code\User\workspaceStorage\d01add7590f59a9d2cbc31c8c6cb30b4\redhat.java\jdt
_ws\Week 1_5def7640\bin' 'Output2'
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."
PS D:\L\OOP\Week 1>
```