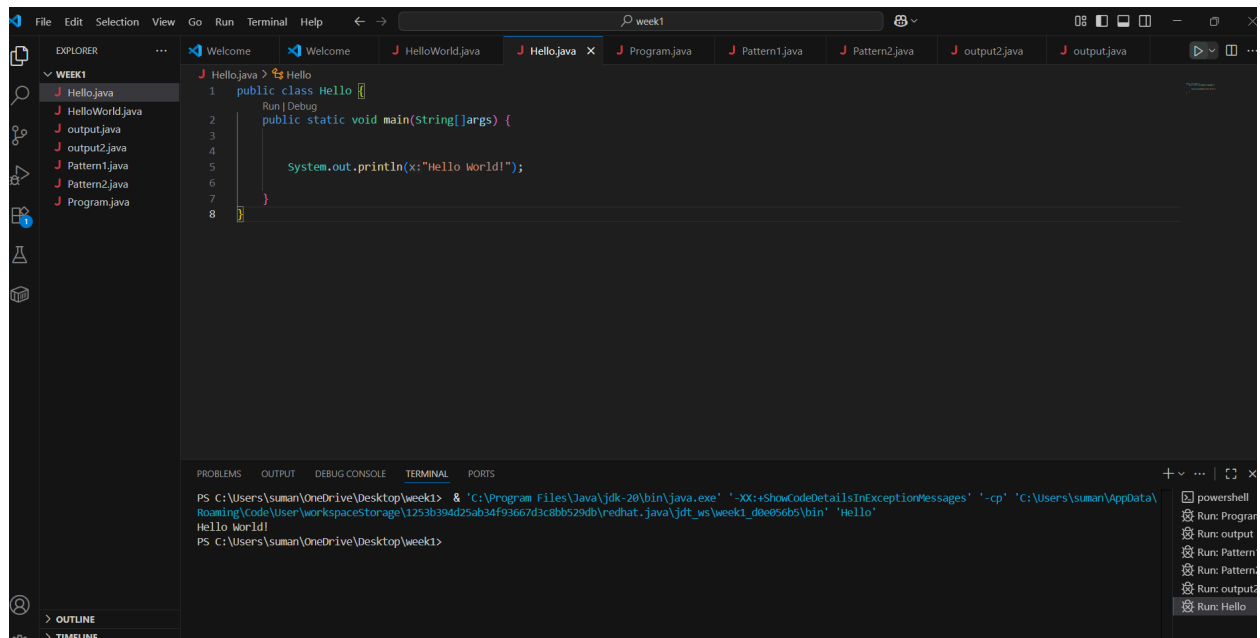


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1. Write a program that prints Hello World! to the console. Save the program as Hello.java.



The screenshot shows an IDE window with a file explorer on the left, a code editor in the center, and a terminal at the bottom. The file explorer shows a project named 'WEEK1' with files: Hello.java, HelloWorld.java, output.java, output2.java, Pattern1.java, Pattern2.java, and Program.java. The code editor displays the following Java code:

```
1 public class Hello {  
2     Run | Debug  
3     public static void main(String[] args) {  
4  
5         System.out.println(x: "Hello World!");  
6     }  
7 }  
8
```

The terminal at the bottom shows the command prompt output:

```
PS C:\Users\suman\OneDrive\Desktop\week1> & 'C:\Program Files\Java\jdk-20\bin\java.exe' '-XX:+showCodeDetailsInExceptionMessages' '-cp' 'C:\Users\suman\AppData\Roaming\Code\User\workspaceStorage\1253b394d25ab34f93667d3c8bb529db\redhat.java\jdt_ws\week1_dee056b5\bin' 'Hello'  
Hello World!  
PS C:\Users\suman\OneDrive\Desktop\week1>
```

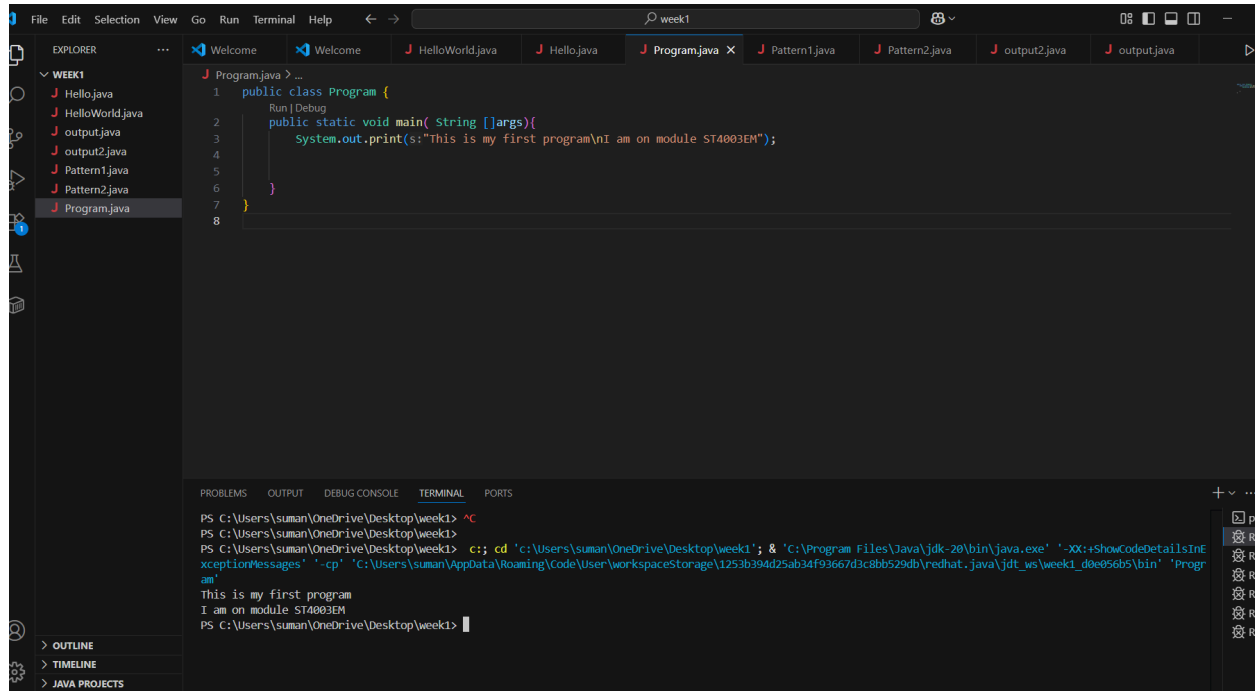
On the right side of the terminal, there is a list of run configurations: powershell, Run: Program, Run: output, Run: Pattern, Run: Pattern, Run: output2, and Run: Hello.

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.



The screenshot shows an IDE with a project named 'week1'. The Explorer panel on the left lists files: 'Hello.java', 'HelloWorld.java', 'output.java', 'output2.java', 'Pattern1.java', 'Pattern2.java', and 'Program.java'. The main editor displays the code for 'Program.java':

```
1 public class Program {  
2     Run | Debug  
3     public static void main( String []args){  
4         System.out.print(s:"This is my first program\nI am on module ST4003EM");  
5     }  
6  
7  
8 }
```

The bottom panel shows the 'TERMINAL' output:

```
PS C:\Users\suman\OneDrive\Desktop\week1> ^C  
PS C:\Users\suman\OneDrive\Desktop\week1>  
PS C:\Users\suman\OneDrive\Desktop\week1> c:: cd 'c:\Users\suman\OneDrive\Desktop\week1'; & 'C:\Program Files\Java\jdk-20\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\suman\AppData\Roaming\Code\User\workspaceStorage\1253b394d25ab34f93667d3c8bb529db\redhat.java\jdt_ws\week1_d0e056b5\bin' 'Program'  
This is my first program  
I am on module ST4003EM  
PS C:\Users\suman\OneDrive\Desktop\week1>
```

3. Write a program that prints the following output:

A "quoted" String is

'much' better if you learn

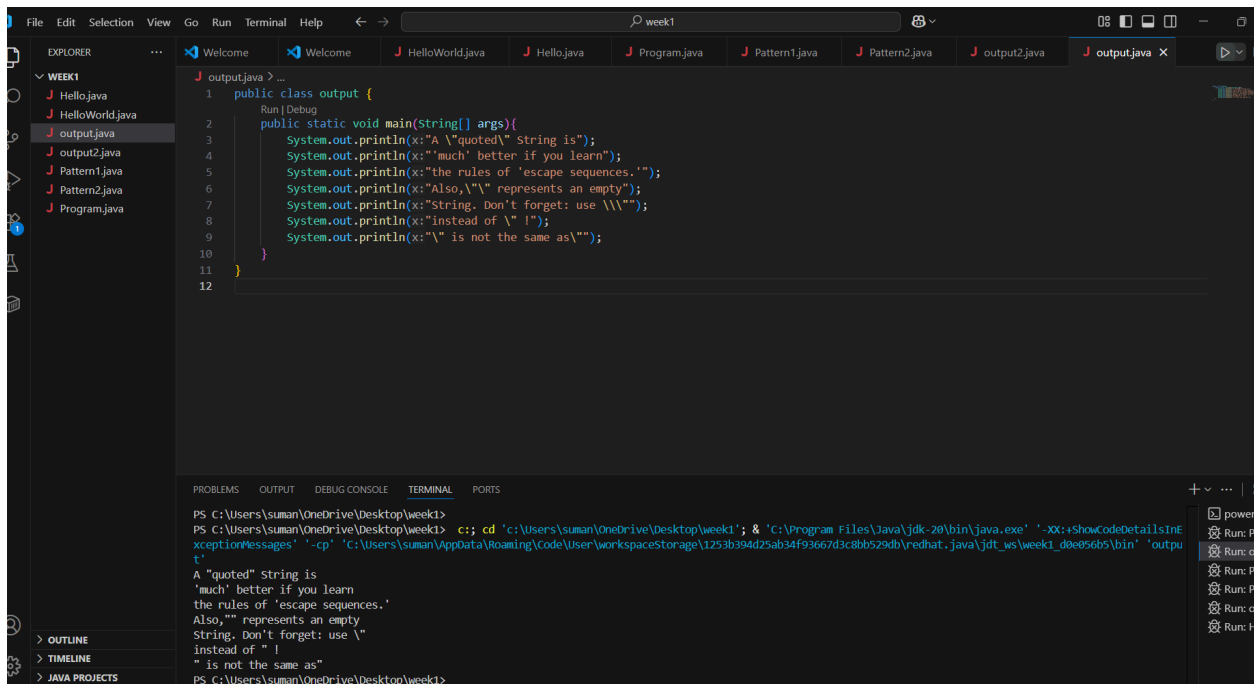
the rules of "escape sequences."

Also, "" represents an empty

String. Don't forget: use \"

instead of " !

" is not the same as "



The screenshot shows an IDE with a Java file named `output.java` open. The code defines a public class `output` with a `main` method that prints several lines of text. The IDE's output window at the bottom shows the execution results, which match the expected output from the text blocks above. The Explorer panel on the left shows a project named `WEEK1` containing several Java files, including `output.java`.

```
1 public class output {  
2     public static void main(String[] args){  
3         System.out.println("A \"quoted\" String is");  
4         System.out.println("'much' better if you learn");  
5         System.out.println("the rules of 'escape sequences.'");  
6         System.out.println("Also, \"\" represents an empty");  
7         System.out.println("String. Don't forget: use \\");  
8         System.out.println("instead of \" !");  
9         System.out.println("\" is not the same as \"");  
10    }  
11 }  
12 }
```

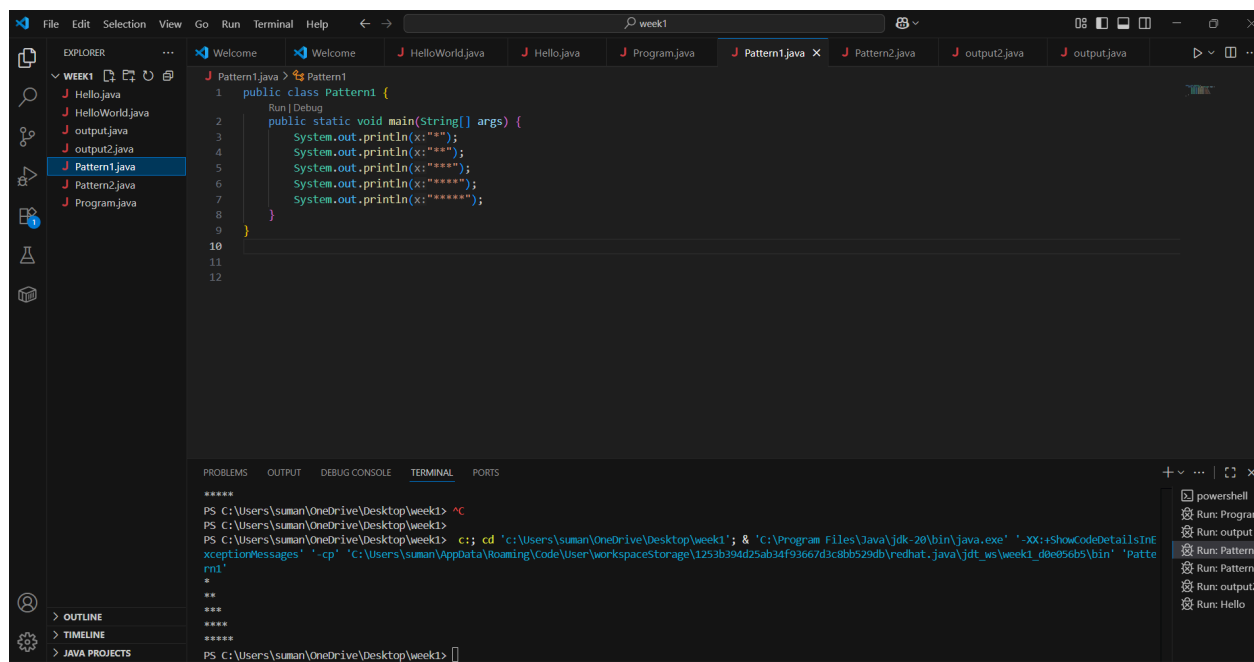
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\suman\OneDrive\Desktop\week1>  
PS C:\Users\suman\OneDrive\Desktop\week1> c:: cd 'C:\Users\suman\OneDrive\Desktop\week1'; & 'C:\Program Files\Java\jdk-20\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\suman\AppData\Roaming\Code\User\workspacestorage\1253b394d25ab34f93667d3c8bb529db\redhat_.java\jdt_ws\week1_d0e056b5\bin' 'output.java'  
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 C:\Users\suman\OneDrive\Desktop\week1>
```

4. WAP that prints the following pattern:

*

**



The screenshot shows an IDE with a project named 'week1'. The Explorer panel on the left lists files: 'Hello.java', 'HelloWorld.java', 'output.java', 'output2.java', 'Pattern1.java', 'Pattern2.java', and 'Program.java'. The 'Pattern1.java' file is selected and its code is visible in the editor. The code defines a public class 'Pattern1' with a 'main' method that prints five lines of asterisks, each line increasing by one asterisk. The bottom panel shows the 'TERMINAL' tab with the command prompt output: '*****', '****', '***', '**', and '*'. The right side of the bottom panel shows a list of run configurations: 'powershell', 'Run: Program', 'Run: output', 'Run: Pattern1', 'Run: Pattern2', 'Run: output2', and 'Run: Hello'.

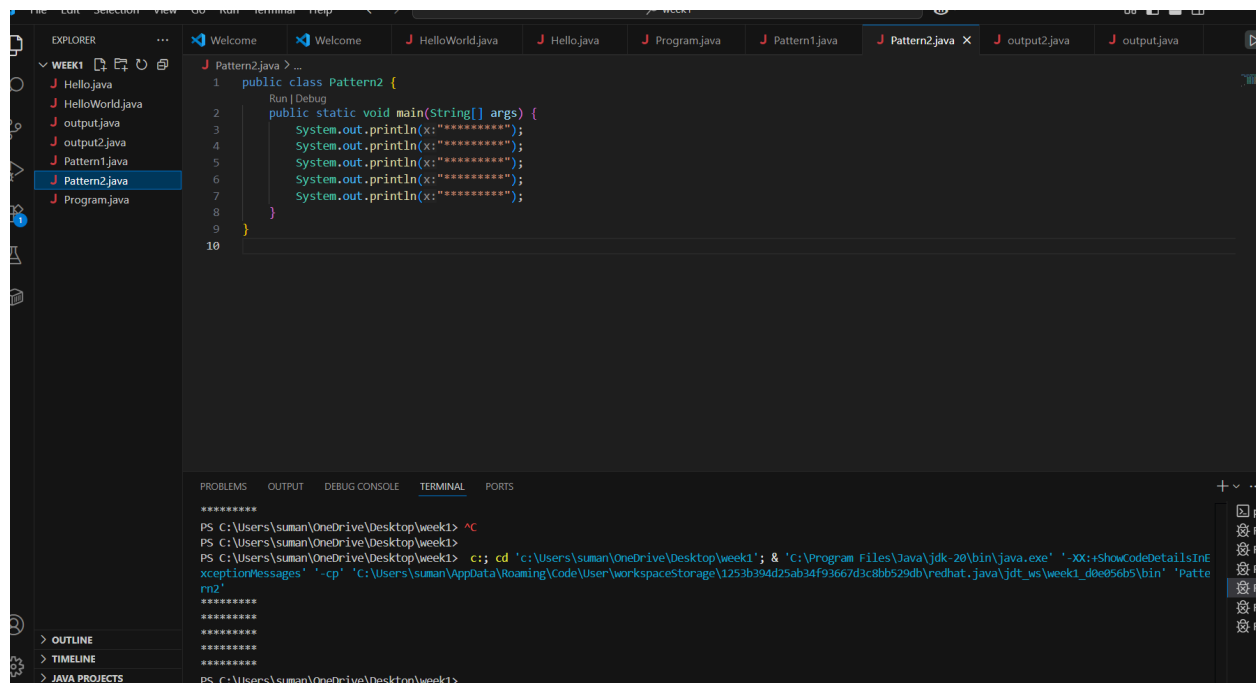
```
1 public class Pattern1 {  
2     public static void main(String[] args) {  
3         System.out.println(x:"");  
4         System.out.println(x:"");  
5         System.out.println(x:"");  
6         System.out.println(x:"");  
7         System.out.println(x:"");  
8     }  
9 }  
10  
11  
12
```

PS C:\Users\suman\OneDrive\Desktop\week1> ^C
PS C:\Users\suman\OneDrive\Desktop\week1>
PS C:\Users\suman\OneDrive\Desktop\week1> c:; cd 'c:\Users\suman\OneDrive\Desktop\week1'; & 'C:\Program Files\Java\jdk-20\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\suman\AppData\Roaming\Code\User\workspacestorage\1253b394d25ab34f93667d3c8bb529db\redhat_java\jdt_ws\week1_dbe956b5\bin' 'Pattern1'

**
*
PS C:\Users\suman\OneDrive\Desktop\week1>

* * * * *

* * * * *



6. WAP that prints the following output:

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

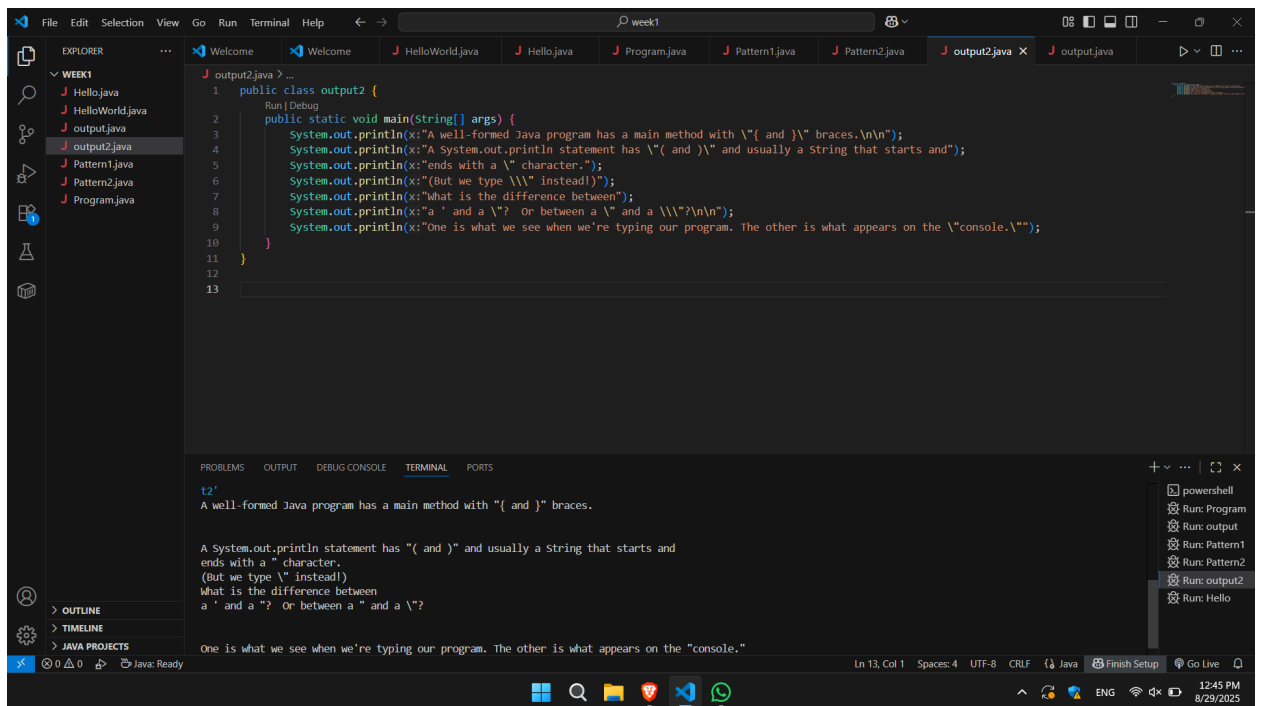
A System.out.println statement has (
and) and usually a String that starts
and ends with a " character.

(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."



The screenshot shows an IDE with a Java file named `output2.java` open. The code defines a class `output2` with a `main` method that prints several lines of text. The output is displayed in the terminal window at the bottom, showing the exact text that appears when the program is run, including the use of backslashes for quotes and newlines.

```
1 public class output2 {  
2     public static void main(String[] args) {  
3         System.out.println(x:"A well-formed Java program has a main method with \"{ and }\" braces.\n\n");  
4         System.out.println(x:"A System.out.println statement has \"( and )\" and usually a String that starts and  
5         System.out.println(x:"ends with a \" character.");  
6         System.out.println(x:"(But we type \" instead!);  
7         System.out.println(x:"What is the difference between");  
8         System.out.println(x:"a ' and a "? Or between a " and a \"?");  
9         System.out.println(x:"One is what we see when we're typing our program. The other is what appears on the \"console.\"");  
10    }  
11 }  
12  
13
```

The terminal output shows the following text:

```
t2'  
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."
```