Introduction to Java

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ST4003CEM Object Oriented Programming

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PRINTING HELLO WORLD

Source code:

Hello.java

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

Output:

```
PS C:\Users\Nitro V 16\OneDrive\Desktop\2nd sem\OOP>  & 'C:\Program Files\Java\jdk-24\bin\java.exe' '--enable
-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Nitro V 16\AppData\Roaming\Trae\User\work
spaceStorage\4b13e7099784cb092da95a5fbec64759\redhat.java\jdt_ws\OOP_2945a21d\bin' 'Hello'
Hello World!
```

EXTENDING THE ABOVE PROGRAM

Source code:

Hello.java

```java
public class Hello{
    Run | Debug
    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 STW4003CEM");
    }
}
```

Output:

```
PS C:\Users\Nitro V 16\OneDrive\Desktop\2nd sem\OOP>  c:; cd 'c:\Users\Nitro V 16\OneDrive\Desktop\2nd sem\OOP'; & 'C:\Program Files\Java\jdk-24\bin\java.exe' '--enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Nitro V 16\AppData\Roaming\Trae\User\workspaceStorage\4b13e7099784cb092da95a5fbec64759\redhat.java\jdt_ws\OOP_2945a21d\bin' 'Hello'
Hello World!
This is my first program
I am on module STW4003CEM
```

PRINTING THE FOLLOWING OUTPUT 1

Source code:

```java
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 \"");
    }
}
```

Output:

```
PS C:\Users\Nitro V 16\OneDrive\Desktop\2nd sem\OOP>  & 'C:\Program Files\Java\jdk-24\bin\java.exe' '--enable
-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Nitro V 16\AppData\Roaming\Trae\User\work
spaceStorage\4b13e7099784cb092da95a5fbec64759\redhat.java\jdt_ws\OOP_2945a21d\bin' '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 "
```

PRINTING PATTERN 1

Source code:

```java
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:"*****");
    }
}
```

Output:

```
PS C:\Users\Nitro V 16\OneDrive\Desktop\2nd sem\OOP>  & 'C:\Program Files\Java\jdk-24\bin\java.exe' '--enable
-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Nitro V 16\AppData\Roaming\Trae\User\work
spaceStorage\4b13e7099784cb092da95a5fbec64759\redhat.java\jdt_ws\OOP_2945a21d\bin' 'Hello'
*
**
***
****
*****
```

PRINTING PATTERN 2

Source code:

```java
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:"*********");
    }
}
```

Output:

```
PS C:\Users\Nitro V 16\OneDrive\Desktop\2nd sem\OOP>  & 'C:\Program Files\Java\jdk-24\bin\java.exe' '--enable
-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Nitro V 16\AppData\Roaming\Trae\User\work
spaceStorage\4b13e7099784cb092da95a5fbec64759\redhat.java\jdt_ws\OOP_2945a21d\bin' 'Hello'
*********
*********
*********
*********
*********
```

PRINTING THE FOLLOWING OUTPUT 2

Source code:

```java
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.");
        System.out.println(x:"");
        System.out.println(x:"A System.out.println statement has ( and ) and usually a String that");
        System.out.println(x:"starts and ends with a \" character.");
        System.out.println(x:"What is the difference between");
        System.out.println(x:"a \' and a \"?  Or between a \" and a \\\"?");
        System.out.println(x:"");
        System.out.println(x:"One is what we see when we\'re typing our program. The other is what appears on");
        System.out.println(x:"the \"console.\"");
    }
}
```

Output:

```
PS C:\Users\Nitro V 16\OneDrive\Desktop\2nd sem\OOP>  & 'C:\Program Files\Java\jdk-24\bin\java.exe' '--enable
-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\Nitro V 16\AppData\Roaming\Trae\User\work
spaceStorage\4b13e7099784cb092da95a5fbec64759\redhat.java\jdt_ws\OOP_2945a21d\bin' '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.
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."
```