

Philip Pesic

Week 7

March 5 2023

Week 7 Prog 3

1\* Run code with different character: a, A, x, 1, #, \$. What results do you get ? Check with ASCII table.

2\* Explain why the code/decode works ? Hint: What really is a 'char' data type

```
package Prog3;

class prog3 {
    public static void main(String[] args) {
        char codedLetter;
        char decodedLetter;
        char letter = '*';

        System.out.println( "Letter = " + letter);
        codedLetter = CodeLetter(letter);
        System.out.println( "Coded Letter = " + codedLetter );
        decodedLetter = DecodeLetter(codedLetter);
        System.out.println( "Decoded Letter = " + decodedLetter );
        char x = '@';
        System.out.println(x);
        x++;
        System.out.println(x);
        System.out.println("Philip Pesic 3/5/23");
    }

    public static char CodeLetter(char c) {
        return (++c);
    }

    public static char DecodeLetter(char c) {
        return (--c);
    }
}
```

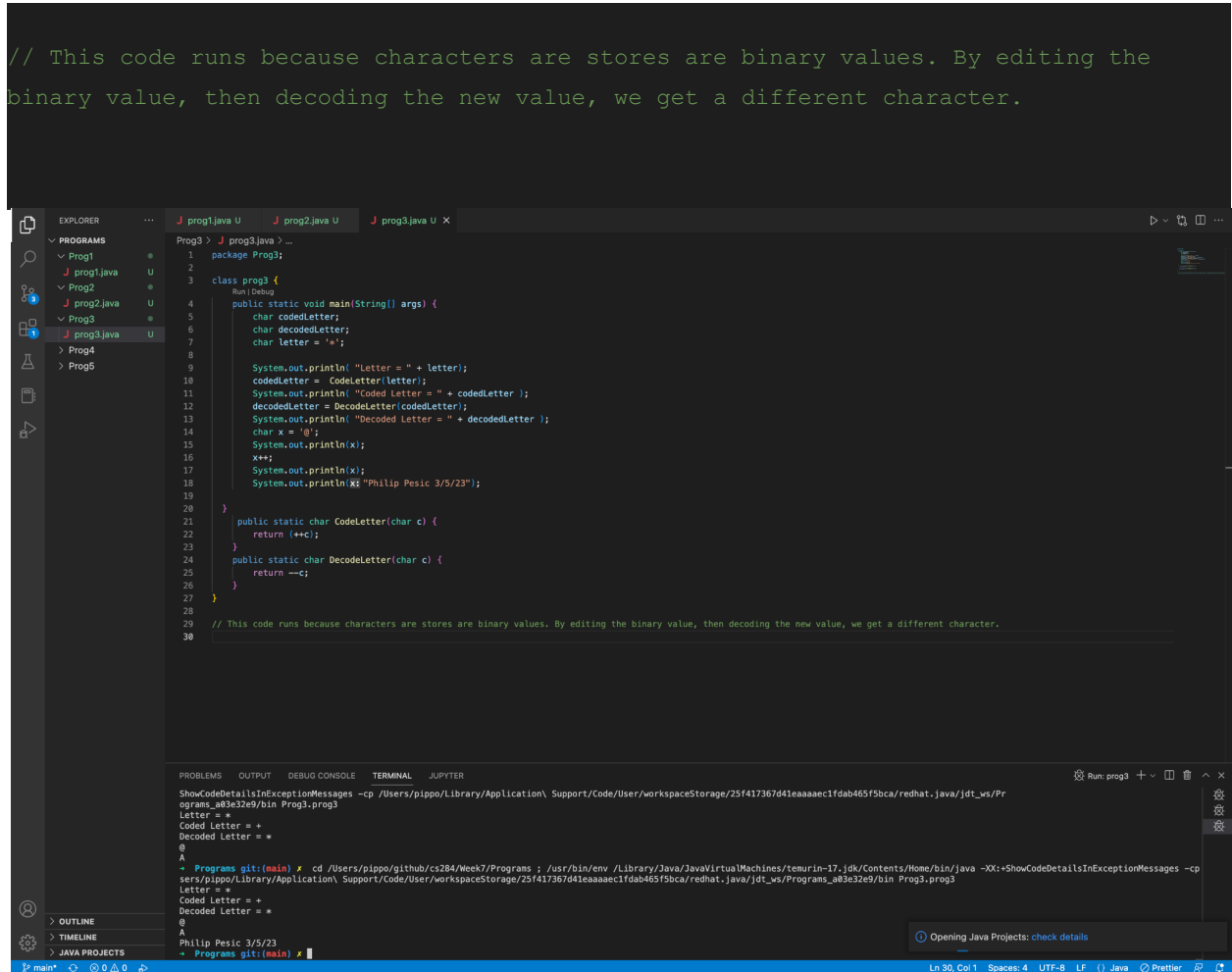
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```
// This code runs because characters are stores are binary values. By editing the
binary value, then decoding the new value, we get a different character.
```



```
package Prog3;

class prog3 {

    public static void main(String[] args) {
        char codedLetter;
        char decodedLetter;
        char letter = 'P';

        System.out.println("Letter = " + letter);
        codedLetter = CodeLetter(letter);
        System.out.println("Coded Letter = " + codedLetter);
        decodedLetter = DecodeLetter(codedLetter);
        System.out.println("Decoded Letter = " + decodedLetter);
        char x = 'Q';
        System.out.println(x);
        x++;
        System.out.println(x);
        System.out.println("Philip Pesic 3/5/23");
    }

    public static char CodeLetter(char c) {
        return ++c;
    }

    public static char DecodeLetter(char c) {
        return --c;
    }
}

// This code runs because characters are stores are binary values. By editing the binary value, then decoding the new value, we get a different character.
```

```
Problems OUTPUT DEBUG CONSOLE TERMINAL JUPYTER
ShowCodeDetailsInExceptionMessages -cp /Users/pippo/Library/Application\ Support/Code/User/workspaceStorage/25f417367d41eaaac1fdb465f5bca/redhat.java/jdt_ws/Pr
ograms_a03e32e9/bin Prog3.prog3
Letter = P
Coded Letter = Q
Decoded Letter = P
Q
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+ Programs.git:(main) #
```

I learned: how to edit the binary values of characters