CHRISTIAN NII COMMEY SOLOMON - 040918451

1. Write a Java program that will prompt a terminal operator for three characters, accept those characters as input, sort them into ascending sequence, and output them to the screen. Do not use a Java sort function for this exercise

Solution

```java
package com.lectureTwo.gctu;

import java.util.Scanner;

public class Main {
    public static char[] arr = new char[3];

    public static void main(String[] args) {
        //Declare variables
        Scanner sc = new Scanner(System.in);
        char a, b, c;
        //Prompt user for inputs

        System.out.println("Enter the first character");
        a = sc.next().charAt(0);

        System.out.println("Enter the second character");
        b = sc.next().charAt(0);

        System.out.println("Enter the third character");
        c = sc.next().charAt(0);

        SortCharactersInDescendingOrder(a, b, c);

        System.out.println(arr);

    }

    public static char GreatestOfTwoCharacters(char m, char n) {
        if (m == n) return m;
        return m > n ? m : n;
    }

    public static char LeastOfTwoCharacters(char m, char n) {
        if (m == n) return m;
        return m < n ? m : n;
    }

    public static void SortCharactersInDescendingOrder(char x, char y, char z)
    {
```

```
        if ((x > y) && (x > z)) {
            PopulateArray(x, GreatestOfTwoCharacters(y, z),
LeastOfTwoCharacters(y, z));
        }
        else if ((x > y) && (x < z)) {
            PopulateArray(z, x, y);
        }
        else if ((x < y) && (x > z)) {
            PopulateArray(y, x, z);
        }
        else {
            PopulateArray(GreatestOfTwoCharacters(y, z),
LeastOfTwoCharacters(y, z), x);
        }
    }

    public static void PopulateArray(char m, char n, char o) {
        arr[0] = o;
        arr[1] = n;
        arr[2] = m;
    }
}
```