PA6 – Programming Workflow Template

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First 30 Minutes

Screenshot or copy/paste of program:

```
class PositiveMinMaxAvg {
    public static void main(String[] args){
        double min = 0;
        double max = 0;
        int length = 0;
        int position = 0;
        for(String s: args){
            if(Double.parseDouble(s) >= 0){
                length ++;
            }
        }
        double[] positives = new double[length];
        //System.out.println(positives.length);
        for(int i = 0; i < args.length; i++){
            if(Double.parseDouble(args[i]) >= 0){
                positives[position] =
Double.parseDouble(args[i]);
                position ++;
            }
            System.out.println(positives[position - 1]);
        }

        for(double s: positives){
            if(s < min){
                min = s;
            }
// max is done, to zero
```

```
            if(s > max){
                max = s;
            }
        }
        System.out.println((min + max) / 2);
    }
}
```

Screenshot or copy/paste of ./run output (if any):

PS D:\study\UCSD Undergrade classes\CSE\CSE-11\PA 6\cse11-pa6-starter-main>javac PositiveMinMaxAvg.java
Picked up _JAVA_OPTIONS: -Duser.language=en -Duser.country=US
PS D:\study\UCSD Undergrade classes\CSE\CSE-11\PA 6\cse11-pa6-starter-main>java PositiveMinMaxAvg -1.5, 2.5, 3.5, 5
Picked up _JAVA_OPTIONS: -Duser.language=en -Duser.country=US
Exception in thread "main" java.lang.ArrayIndexOutOfBoundsException: Index -1 out of bounds for length 3
    at PositiveMinMaxAvg.main(PositiveMinMaxAvg.java:19)

Thoughts on your progress:

I am trying to put all the positive numbers from the argument into another array thus I can use the new array to find out the min and max with min and max set to zero.
Now I should put check for positive number only and then use an if statement with return inside to end the main method early when the length of the positive number arrays length is less than 2.

Distractions:

N/A

Second 30 minutes:

Screenshot or copy/paste of program:

```
import tester.*;
class Triplet {
    int a, b, c;

    Triplet(int a, int b, int c){
        this.a = a;
        this.b = b;
        this.c = c;
    }
}

class TripletSelect{
//Method getBs
    int[] getBs(Triplet[] triplets){
        int[] Bs = new int[triplets.length];
        for(int i = 0; i < triplets.length; i++){
            Bs[i] = triplets[i].b;
        }
        return Bs;
    }
//Test the method
    void testTriplet(Tester t){
        Triplet[] t1 = {new Triplet(1, 2, 3), new Triplet(1, 0,
3),
                        new Triplet(1, 4, 3), new Triplet(1, 5,
3)}; //2 0 4 5
        Triplet[] t2 = {new Triplet(1, 9, 3), new Triplet(1, 0,
3),
                        new Triplet(1, 2, 3), new Triplet(1, 7,
3)}; //9 0 2 7
        Triplet[] t3 = {new Triplet(1, 2, 3), new Triplet(1, 6,
3),
```

```
                        new Triplet(1, 5, 3), new Triplet(1, 3,
3)}; //2 6 5 3
        Triplet[] t4 = {new Triplet(1, 7, 3), new Triplet(1, 6,
3),
                        new Triplet(1, 3, 3), new Triplet(1, 1,
3)}; //7 6 3 1
        int[] e1 = {2, 0, 4, 5};
        int[] e2 = {9, 0, 2, 7};
        int[] e3 = {2, 6, 5, 3};
        int[] e4 = {7, 6, 3, 1};
        t.checkExpect(getBs(t1), e1);
        t.checkExpect(getBs(t2), e2);
        t.checkExpect(getBs(t3), e3);
        t.checkExpect(getBs(t4), e4);
    }
}
```

Screenshot or copy/paste of ./run output (if any):

PS D:\study\UCSD Undergrade classes\CSE\CSE-11\PA 6\cse11-pa6-starter-main> ./run TripletSelect
Picked up _JAVA_OPTIONS: -Duser.language=en -Duser.country=US
Picked up _JAVA_OPTIONS: -Duser.language=en -Duser.country=US
WARNING: A Java agent has been loaded dynamically (C:\Users\qq121\AppData\Local\Temp\byteBuddyAgent17956051121890503036.jar)
WARNING: If a serviceability tool is in use, please run with -XX:+EnableDynamicAgentLoading to hide this warning
WARNING: If a serviceability tool is not in use, please run with -Djdk.instrument.traceUsage for more information
WARNING: Dynamic loading of agents will be disallowed by default in a future release
Tester Library v.3.0

Tests defined in the class: TripletSelect:

TripletSelect:
---
new TripletSelect:1()

Ran 4 tests.
All tests passed.

--- END OF TEST RESULTS ---

Thoughts on your progress:

Finished the first task in the first 10 mins.
Finished the second task 4 min before this 30 min period

Distractions:

N/A

Final 30 minutes:

Screenshot or copy/paste of program:

Screenshot or copy/paste of ./run output (if any):

Thoughts on your progress:

Distractions:

Overall Reflection

Finished two tasks within 56 mins.
I spent most of my time on the first task, which was trying to optimize the code with in lesser loops. And another time consuming part is to understand the error message, for example, the second one said I need a constructor that does not fail, which I though I did something wrong, until I added a default constructor, then it works as I thought, probably because I did not use the constructor outside of the function or tester, which for tester.jar or run.bat itself need a constructor to be used to show things.
(I figured out why I did not get full credit for autograder for the first time, because I did not read the question carefully and I made mistakes on names of classes and functions.)

I should put my thoughts out first in the future thus I don't have to rethink about it again and again.

This process might not increase the efficiency of my, but it might make me feel better.

By putting my thoughts down will decrease the stress level of mine. (the biggest thing I have learned is probably strictly follow what the question asking and instructions from professor… This will save me a lot of time)