PA6 – Programming Workflow Template
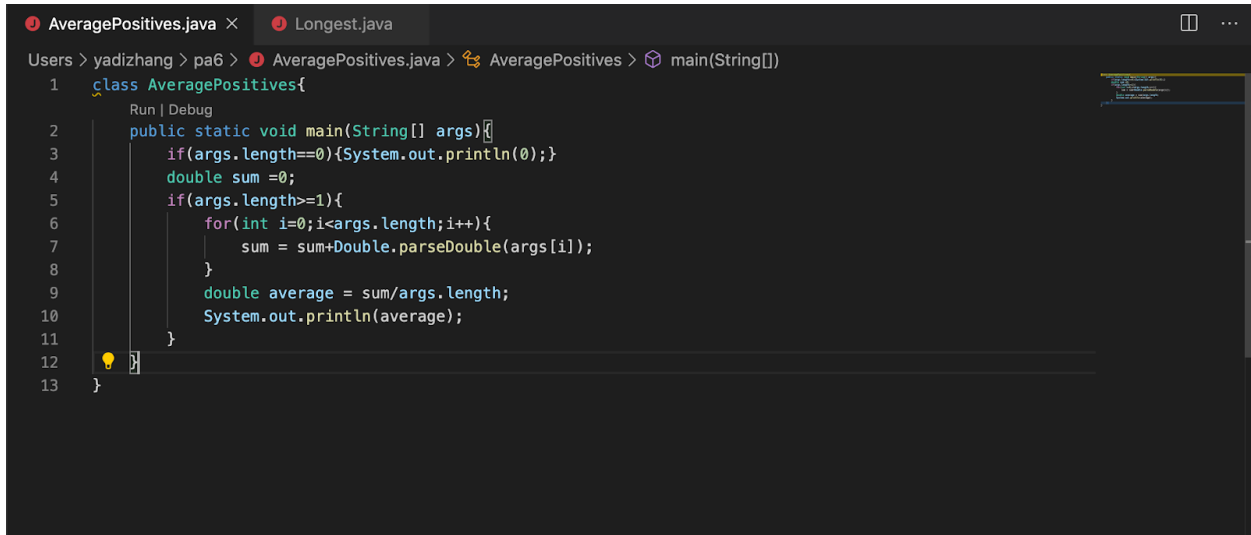
Name: Yadi Zhang
UCSD email: yaz219@ucsd.edu

First 30 Minutes

Screenshot or copy/paste of program:

```java
class AveragePositives{
    Run | Debug
    public static void main(String[] args){
        if(args.length==0){System.out.println(0);}
        double sum =0;
        if(args.length>=1){
            for(int i=0;i<args.length;i++){
                sum = sum+Double.parseDouble(args[i]);
            }
            double average = sum/args.length;
            System.out.println(average);
        }
    }
}
```

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

```
Hes-MacBook:pa6 yadizhang$ java AveragePositives 20 3.2 4.9
9.366666666666667
Hes-MacBook:pa6 yadizhang$ java AveragePositives 20 30 40
30.0
Hes-MacBook:pa6 yadizhang$ java AveragePositives 1 2 3 4 5 6 7 8
4.5
Hes-MacBook:pa6 yadizhang$ java AveragePositives 9 1 3 6 10
5.8
Hes-MacBook:pa6 yadizhang$ java AveragePositives 3 8 10 12 15
9.6
Hes-MacBook:pa6 yadizhang$ java AveragePositives 4 52 9 17
20.5
Hes-MacBook:pa6 yadizhang$ ▮
```

Thoughts on your progress:

I feel like it takes more time to read through the write up than to actually start coding. During the first 30 minutes, I spent more than 20mins on digesting the writeup and organizing the logic of the coding. The coding process only takes 5-6mins if I fully concentrate on it.

Distractions: Music and TV show about 5mins.

Second 30 minutes:

Screenshot or copy/paste of program:

```
1   import tester.*;
2   class Pair{
3       int a;
4       int b;
5       Pair(int a,int b){
6           this.a = a;
7           this.b = b;
8       }
9
10  }
11  class PairSelect{
12      int[] getAs(Pair[] input){
13          int[] temp =  new int[input.length];
14          for(int i = 0;i<input.length;i++){
15              temp[i] = input[i].a;
16          }
17          return temp;
18      }
19
20          Pair test1 = new Pair(2,3);
```

```
19
20          Pair test1 = new Pair(2,3);
21          Pair test2 = new Pair(22,33);
22          Pair test3 = new Pair(1,90);
23          Pair test4 = new Pair(11,25);
24          Pair[] aha = {test1,test2,test3,test4};
25          Pair[] woohoo = {test1,test2,test3};
26          Pair[] eyyo = {test1,test2};
27          Pair[] wow = {test1};
28          int[] expect1 = {2,22,1,11};
29          int[] expect2 = {2,22,1};
30          int[] expect3 = {2,22};
31          int[] expect4 = {2};
32
33          boolean testgetAs1(Tester t){
34              return t.checkExpect(this.getAs(aha),expe
35          }
36          boolean testgetAs2(Tester t){
37              return t.checkExpect(this.getAs(woohoo),e
38          }
```

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

```
   [0] 2,
   [1] 22
 }
 this.expect4 = new int[1]:13{
   [0] 2
 })
 ----------------

Ran 4 tests.
All tests passed.

--- END OF TEST RESULTS ---
```
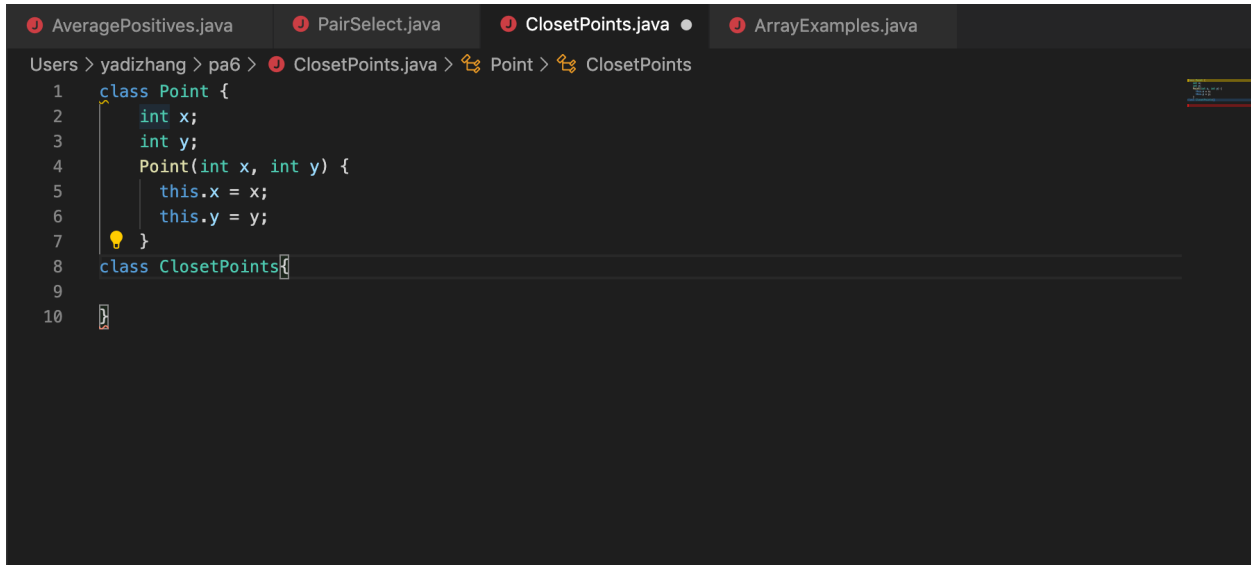
Thoughts on your progress:

I spent a lot of time debugging for the second task and also the second 30mins. The checkExpect method wouldn't let me directly put an int array in the expecting-result section. Therefore, I tried different approaches to get rid of the syntax error.

Distractions: Music for about 7 mins

Final 30 minutes:

Screenshot or copy/paste of program:

```
AveragePositives.java    PairSelect.java    ClosetPoints.java ●    ArrayExamples.java

Users > yadizhang > pa6 > ● ClosetPoints.java > ⟨⟩ Point > ⟨⟩ ClosetPoints
 1    class Point {
 2        int x;
 3        int y;
 4        Point(int x, int y) {
 5            this.x = x;
 6            this.y = y;
 7     💡 }
 8    class ClosetPoints{
 9
10    }
```

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

Thoughts on your progress:

- Where did you spend the most time?
  - For me, debugging is the most time-consuming. It's the easiest thing to make mistakes but it's the hardest to find out the mistakes. When I was stuck into one particular part, no matter when interpreting error messages or coding, it usually takes me five times more energy than just typing codes out.
- What could you do to reduce the time taken in the future?
  - I think what I could do is to practice more in order to cultivate an ability of error detecting and correcting. And also the sinfulness of interpreting the error message.
- How did this process compare to how you usually complete PAs?

- It pushes me to focus on my programming more since I really want to finish a task in 30mins and I think it works well.
- Overall, what did you learn from this experience about your programming workflow, if anything?
  - It makes me more effective but more stressful.

Distractions:

Overall Reflection