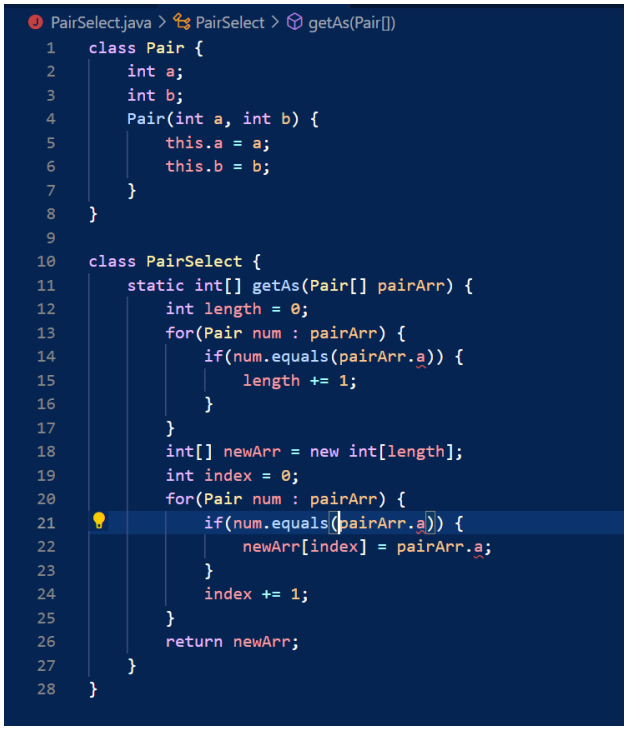
PA6 – Programming Workflow Template

Name: Brigette Hacia
UCSD email: bhacia@ucsd.edu

First 20 Minutes

Screenshot or copy/paste of program:



PairSelect.java > PairSelect > getAs(Pair[])

```
1   class Pair {
2       int a;
3       int b;
4       Pair(int a, int b) {
5           this.a = a;
6           this.b = b;
7       }
8   }
9
10  class PairSelect {
11      static int[] getAs(Pair[] pairArr) {
12          int length = 0;
13          for(Pair num : pairArr) {
14              if(num.equals(pairArr.a)) {
15                  length += 1;
16              }
17          }
18          int[] newArr = new int[length];
19          int index = 0;
20          for(Pair num : pairArr) {
21              if(num.equals(pairArr.a)) {
22                  newArr[index] = pairArr.a;
23              }
24              index += 1;
25          }
26          return newArr;
27      }
28  }
```

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

```
.\run.bat PairSelect
PairSelect.java:14: error: cannot find symbol
            if(num.equals(pairArr.a)) {
                          ^
  symbol:   variable a
  location: variable pairArr of type Pair[]
PairSelect.java:21: error: cannot find symbol
            if(num.equals(pairArr.a)) {
                          ^
  symbol:   variable a
  location: variable pairArr of type Pair[]
PairSelect.java:22: error: cannot find symbol
                newArr[index] = pairArr.a;
                                ^
  symbol:   variable a
  location: variable pairArr of type Pair[]
```

3 errors
Exception in thread "main" java.lang.RuntimeException: The PairSelect class could not be found.
Please make sure to specify the name of your examples class properly (with no typos).
    at java.base/jdk.internal.loader.BuiltinClassLoader.loadClass(BuiltinClassLoader.java:641)
    at java.base/jdk.internal.loader.ClassLoaders$AppClassLoader.loadClass(ClassLoaders.java:188)
    at java.base/java.lang.ClassLoader.loadClass(ClassLoader.java:520)
    at java.base/java.lang.Class.forName0(Native Method)
    at java.base/java.lang.Class.forName(Class.java:375)
    at tester.Main.main(Main.java:228)

Thoughts on your progress:

At the moment, my brain can't comprehend what the Pair array is supposed to look like, so I'm having trouble trying to set the method up properly. In my loop, I know that 'num' is a Pair, not an int in Pair, so I need to change that. I need to find a way that will only get the int 'a' within those Pairs. I think I'm somewhere on the right track, at least with having two of these loops because for the first loop, I need to find out how big the int array that I'll be returning is, then I can start filling in that array with the 'a' values.

Distractions:

Yes, for about 3 minutes total.

Second 20 minutes:

Screenshot or copy/paste of program:

```
            if(num.a == pairArr[index].a) {
                newArr[index] = num.a;
            }
            index += 1;
        }
        return newArr;
    }
    void testGetAs(Tester t) {
        Pair[] pairArr1 = {new Pair(1, 2), new Pair(3, 4), new Pair(5, 6)};
        int[] result1 = {1, 3, 5};
        t.checkExpect(getAs(pairArr1), result1);

        Pair[] pairArr2 = {new Pair(3, 8), new Pair(9, 2), new Pair(-21, 78)};
        int[] result2 = {3, 9, -21};
        t.checkExpect(getAs(pairArr2), result2);

        Pair[] pairArr3 = {new Pair(-25, 11), new Pair(56, 31), new Pair(62, 101)};
        int[] result3 = {-25, 56, 62};
        t.checkExpect(getAs(pairArr3), result3);

        Pair[] pairArr4 = {new Pair(-4, -19), new Pair(43, -28), new Pair(-88, -63)};
        int[] result4 = {-4, 43, -88};
        t.checkExpect(getAs(pairArr4), result4);
    }
}
```

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

```
.\run.bat PairSelect
Tester Library v.3.0
----------------------------------
Tests defined in the class: PairSelect:
--------------------------
PairSelect:
--------------
new PairSelect:1()
--------------

Ran 4 tests.
All tests passed.

--- END OF TEST RESULTS ---
WARNING: A terminally deprecated method in java.lang.System has been called
WARNING: System::setSecurityManager has been called by tester.Main
(file:/C:/Users/15624/OneDrive/Desktop/JavaProjects/CSE11/Assignments/pa6-master/tester.jar
)
WARNING: Please consider reporting this to the maintainers of tester.Main
WARNING: System::setSecurityManager will be removed in a future release
```

Thoughts on your progress:

Once going back to the task after a while, I was able to comprehend what the Pair array looks like, which made it a lot easier to finish the task. Writing examples by hand helped me.

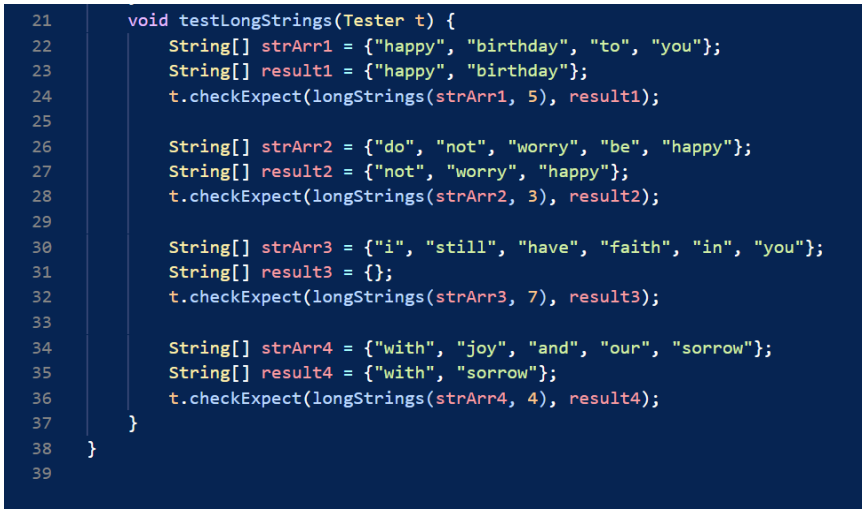
Distractions:

No.

Final 20 minutes:

Screenshot or copy/paste of program:

```
LongStrings.java > LongStrings > longStrings(String[], int)
1   import tester.*;
2
3   class LongStrings {
4       static String[] longStrings(String[] strArr, int n) {
5           int length = 0;
6           for(String s : strArr) {
7               if(s.length() >= n) {
8                   length += 1;
9               }
10          }
11          String[] newArr = new String[length];
12          int index = 0;
13          for(String s : strArr) {
14              if(s.length() >= n) {
15                  newArr[index] = s;
16                  index += 1;
17              }
18          }
19          return newArr;
20      }
```



```
21      void testLongStrings(Tester t) {
22          String[] strArr1 = {"happy", "birthday", "to", "you"};
23          String[] result1 = {"happy", "birthday"};
24          t.checkExpect(longStrings(strArr1, 5), result1);
25
26          String[] strArr2 = {"do", "not", "worry", "be", "happy"};
27          String[] result2 = {"not", "worry", "happy"};
28          t.checkExpect(longStrings(strArr2, 3), result2);
29
30          String[] strArr3 = {"i", "still", "have", "faith", "in", "you"};
31          String[] result3 = {};
32          t.checkExpect(longStrings(strArr3, 7), result3);
33
34          String[] strArr4 = {"with", "joy", "and", "our", "sorrow"};
35          String[] result4 = {"with", "sorrow"};
36          t.checkExpect(longStrings(strArr4, 4), result4);
37      }
38  }
39
```

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

.\run.bat LongStrings
Tester Library v.3.0

Tests defined in the class: LongStrings:

LongStrings:
---
new LongStrings:1()

Ran 4 tests.
All tests passed.

--- END OF TEST RESULTS ---
WARNING: A terminally deprecated method in java.lang.System has been called
WARNING: System::setSecurityManager has been called by tester.Main (file:/C:/Users/15624/OneDrive/Desktop/JavaProjects/CSE11/Assignments/pa6-master/tester.jar)
WARNING: Please consider reporting this to the maintainers of tester.Main
WARNING: System::setSecurityManager will be removed in a future release

Thoughts on your progress:

This task was more simple to complete in my opinion. I felt that it was easy to follow directions as well as understand what exactly the class is expected to do. Like in the other task, I wrote two loops, one to find the length of the new array that will be returned, and the other to fill information into the array (in this case Strings from the inputted array that are 'n' amount of characters or more).

Distractions:

No.

Overall Reflection

- I spent a lot of time on understanding what the program is supposed to do, more specifically, what I'll be returning at the end of the method. I also spent a lot of time manually going through the loops I wrote to make sure that I understood what was going on and if it was what the directions were asking me to do.
- In the future, I could be less distracted by not letting my mind wander off to reduce the time it takes to write these programs. Additionally, I could take more time to understand what I'm supposed to do before writing code right away.
- This process felt more efficient than how I usually complete PAs. It took much less time to finish, and I felt that my thinking process was more organized and focused than usual due to less distractions. Typically when I complete PAs, I'm very distracted because I'm usually burnt out from everything. However, for this PA I worked in these small amounts of time which helped me stay focused.
- I learned that I work better doing tasks in small amounts of time as opposed to working for 1.5 hours then a break. It helps me focus better, and it allows me to not feel too overwhelmed. Additionally in regards to time, I learned that my brain feels more refreshed while completing tasks in small amounts of time.