

Introduction

This is a simple script that helps to test your code input/output format. A similar approach will be used to test your submission. If your code runs with this script it is more likely to run without any changes when we test.

Note: This script only checks the input/output format of your code and compilation.

This script supports only mac and Linux. To test this in windows, you can use git bash. Please follow the below link for git bash <https://stackoverflow.com/a/37478310/3925240>

This script is not tested extensively. So, if you face any issues, create a private Piazza post to Revanth.

Script Setup

1. Copy the script into some folder. Here we have copied to folder test.

```
[revanth@Revanths-Air test % ls -l
total 8
-rw-r--r--@ 1 revanth  staff  3963 Mar 22 19:59 test_aoa_pa.sh
```

2. Inside this folder make a directory named PA1-data-public.

```
[revanth@Revanths-Air test % ls -l
total 8
-rw-r--r--@ 1 revanth  staff  3963 Mar 22 19:59 test_aoa_pa.sh
[revanth@Revanths-Air test % mkdir PA1-data-public
[revanth@Revanths-Air test %
[revanth@Revanths-Air test % ls -l
total 8
drwxr-xr-x  2 revanth  staff    64 Mar 22 20:12 PA1-data-public
-rw-r--r--@ 1 revanth  staff  3963 Mar 22 19:59 test_aoa_pa.sh
revanth@Revanths-Air test %
```

3. Now extract the contents of test cases shared in piazza

https://piazza.com/class_profile/get_resource/kyzxm91gia64r8/l0q43eexzf351v

4. After extracting, the contents have to be something like this.

```
[revanth@Revanths-Air PA1-data-public % ls -l
total 2864
-rw-r--r--@ 1 revanth  staff  374617 Mar 22  20:20 PA1-Testcases-Public.zip
drwxr-xr-x@ 12 revanth  staff    384 Mar 22  20:21 __MACOSX
-rw-r--r--@ 1 revanth  staff    72 Mar 13  22:42 input1.txt
-rw-r--r--@ 1 revanth  staff   574 Mar 13  22:42 input2.txt
-rw-r--r--@ 1 revanth  staff  1179 Mar 13  22:45 input3.txt
-rw-r--r--@ 1 revanth  staff  77823 Mar 13  22:46 input4.txt
-rw-r--r--@ 1 revanth  staff 977764 Mar 13  22:46 input5.txt
-rw-r--r--@ 1 revanth  staff    4 Mar 13  22:42 output1.txt
-rw-r--r--@ 1 revanth  staff    5 Mar 13  22:42 output2.txt
-rw-r--r--@ 1 revanth  staff    6 Mar 13  22:45 output3.txt
-rw-r--r--@ 1 revanth  staff    6 Mar 13  22:46 output4.txt
-rw-r--r--@ 1 revanth  staff    7 Mar 13  22:46 output5.txt
revanth@Revanths-Air PA1-data-public %
```

5. Now copy your code file into the folder where you have copied the test script.

```
[revanth@Revanths-Air test % ls -l
total 16
drwxr-xr-x  14 revanth  staff   448 Mar 22  20:21 PA1-data-public
-rw-r--r--@ 1 revanth  staff  3023 Mar 22  20:24 PA1.java
-rw-r--r--@ 1 revanth  staff  3963 Mar 22  19:59 test_aoa_pa.sh
revanth@Revanths-Air test %
```

6. Now execute the command **bash test_aoa_pa.sh <Program type> <Filename>**

Example: **bash test_aoa_pa.sh JAVA PA1.java**

```
-- Usage: bash test_aoa_pa.sh <Program type> <Filename>

Program type - JAVA/PYTHON/CPP

Filename - Name of the file name that has to be tested.

-- Example:

bash test_aoa_pa.sh JAVA PA1.java
```

Assumptions

1. We assume the submission is a single file. If you have multiple files, merge them into one.
2. Also, you don't need any external libraries for the assignment. So the commands we use for compilation are simple and straightforward.

JAVA:

Compile: `javac <filename>`

Execution: `java <filename_without_extension>`

C++

Compile: `g++ -std=c++11 -o <executable_name> <filename>`

Execution: `./<executable_name>`

For python we use, python3 to run your script. **`python3 <filename>`**

The above commands should cover most cases. If you need to add some flags for compilation or use a different command for execution, raise a request in Piazza. The same will be added to the script if it is a valid request.

Validation

If you get below output, your input/output processing is correct.

```
[revanth@Revanths-Air test % bash test_aoa_pa.sh JAVA PA1.java
rm: temp/output*.txt: No such file or directory
rm: PA1.class: No such file or directory

-----Compiling the code-----
Success

-----Testing public test cases-----
1.) Testing File: PA1-data-public/input1.txt
Executing:
    java PA1 < PA1-data-public/input1.txt > temp/output1.txt
Execution time:
    0 s.
-----
2.) Testing File: PA1-data-public/input2.txt
Executing:
    java PA1 < PA1-data-public/input2.txt > temp/output2.txt
Execution time:
    0 s.
-----
3.) Testing File: PA1-data-public/input3.txt
Executing:
    java PA1 < PA1-data-public/input3.txt > temp/output3.txt
Execution time:
    0 s.
-----
4.) Testing File: PA1-data-public/input4.txt
Executing:
    java PA1 < PA1-data-public/input4.txt > temp/output4.txt
Execution time:
    0 s.
-----
5.) Testing File: PA1-data-public/input5.txt
Executing:
    java PA1 < PA1-data-public/input5.txt > temp/output5.txt
Execution time:
    0 s.
-----

***** All tests passed. *****

revanth@Revanths-Air test % █
```

If you get something like the below output, there are 2 cases of failure

1. There are some extra output getting printed
2. The actual output does not meet the expected. The same can be checked with the diff command printed in the console.

```
[revanth@Revanths-Air test % bash test_aoa_pa.sh JAVA PA1.java

-----Compiling the code-----
Success

-----Testing public test cases-----
1.) Testing File: PA1-data-public/input1.txt
Executing:
    java PA1 < PA1-data-public/input1.txt > temp/output1.txt
Execution time:
    0 s.
[FAILED] Output does not match for PA1-data-public/input1.txt.
    Use 'diff PA1-data-public/output1.txt temp/output1.txt' to know the diff
-----
2.) Testing File: PA1-data-public/input2.txt
Executing:
    java PA1 < PA1-data-public/input2.txt > temp/output2.txt
Execution time:
    0 s.
[FAILED] Output does not match for PA1-data-public/input2.txt.
    Use 'diff PA1-data-public/output2.txt temp/output2.txt' to know the diff
-----
3.) Testing File: PA1-data-public/input3.txt
Executing:
    java PA1 < PA1-data-public/input3.txt > temp/output3.txt
Execution time:
    0 s.
[FAILED] Output does not match for PA1-data-public/input3.txt.
    Use 'diff PA1-data-public/output3.txt temp/output3.txt' to know the diff
-----
4.) Testing File: PA1-data-public/input4.txt
Executing:
    java PA1 < PA1-data-public/input4.txt > temp/output4.txt
Execution time:
    0 s.
[FAILED] Output does not match for PA1-data-public/input4.txt.
    Use 'diff PA1-data-public/output4.txt temp/output4.txt' to know the diff
-----
5.) Testing File: PA1-data-public/input5.txt
Executing:
    java PA1 < PA1-data-public/input5.txt > temp/output5.txt
Execution time:
    1 s.
[FAILED] Output does not match for PA1-data-public/input5.txt.
    Use 'diff PA1-data-public/output5.txt temp/output5.txt' to know the diff
-----

***** Some tests failed. Please check!*****
```

The script should run in 1 - 2 secs. If the script hangs, then your input/output processing is wrong.