Subject: V2.0 Best Testing Files Ever  
Posted by davidmccoy on Wed, 08 Feb 2017 15:02:51 GMT

The results.txt file in the repo has been updated, and multiple students have confirmed this new set (including one set by Dr. Lusth). Please get the latest test results to diff with if you previously only used the first test. You can grab the file with wget https://raw.githubusercontent.com/damccoy1/project1testing/master/results.txt More details in this thread.

Subject: Re: V2.0 Best Testing Files Ever  
Posted by Jbmizzell1 on Wed, 08 Feb 2017 18:05:04 GMT

In the spirit of @davidmccoy I also made some test cases. I only found 1 in the forum that wasn’t in his test cases so I included it. The rest are from the assignment instructions, or I created. I made test for all similar, some similar, and most similar.

To clone

```bash
git clone https://github.com/jakemizzell/p1Testing.git
```

the make test

test:
```bash
echo running sqsort on integer ex 1 from assigment instructions
./sqsort -d t-int1.txt
echo running sqsort on integer ex 2 from ass instructions
./sqsort -d t-int2.txt
echo running sqsort on random integers some reapeats
./sqsort -d t-int3.txt
echo running sqsort on all but one integer the same
./sqsort -d t-int4.txt
echo running sqsort on mostly the same integers
./sqsort -d t-int5.txt
echo running sqsort on real ex
./sqsort -r t-real1.txt
echo running sqsort on real all similar
./sqsort -r t-real2.txt
echo running sqsort on real all but 1 similar
./sqsort -r t-real3.txt
echo running sqsort on string ex
./sqsort -s t-str1.txt
echo running sqsort on string similar
./sqsort -s t-str2.txt
echo running sqsort on string all but 1 similar
./sqsort -s t-str3.txt
```
So to run
make test > yourResults.txt

The results from my run is called jbmResults.txt so do to see if the output is the same
diff jbmResults.txt yourResults.txt

Let me know if there are any problems. I you want me to add any test cases I will.

---

Subject: Re: V2.0 Best Testing Files Ever
Posted by bmbaker1 on Wed, 08 Feb 2017 19:02:04 GMT
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I get the same results except for these:

t-int4.txt:
[1,1,1,1,1,4,1,1,1,1,1,1]
[4,1,1,1,1,1,1,1,1,1,1,1]

vs

[1,1,1,1,1,1,1,1,1,1,1,1]
[1,1,1,1,4,1,1,1,1,1,1,1]
[1,1,1,4,1,1,1,1,1,1,1,1]
[1,1,4,1,1,1,1,1,1,1,1,1]
[1,4,1,1,1,1,1,1,1,1,1,1]
[4,1,1,1,1,1,1,1,1,1,1,1]

t-int5.txt:
[3,3,3,3,3,4,5,3,3,3,3,3]
[5,4,3,3,3,3,3,3,3,3,3,3]

vs

[3,3,3,3,3,5,4,3,3,3,3,3]
[3,3,3,3,4,3,3,3,3,3,3,3]
[3,3,3,5,4,3,3,3,3,3,3,3]
[3,5,4,3,3,3,3,3,3,3,3,3]
[5,4,3,3,3,3,3,3,3,3,3,3]

t-real3.txt:
[1.100000,1.100000,1.100000,2.500000,1.100000,1.100000,1.100000]
[2.500000,1.100000,1.100000,1.100000,1.100000,1.100000,1.100000]
I am not sure which one is correct... I would imagine that mine is, but everyone else seems to have the same result as you. I'm sorting everything correctly, just in one pass vs a few more.

Subject: Re: V2.0 Best Testing Files Ever
Posted by davidmccoy on Wed, 08 Feb 2017 19:18:27 GMT
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Try testing against Lusth's posts:
  http://beastie.cs.ua.edu/forums/index.php?t=msg&th=1584 & amp; amp; amp; amp; goto=7275
  http://beastie.cs.ua.edu/forums/index.php?t=msg&th=1571 & amp; amp; amp; goto=7177
  http://beastie.cs.ua.edu/forums/index.php?t=msg&th=1571 & amp; amp; amp; goto=7181

If you get the same results as Lusth in his posts but still have discrepancies with my results, let
the thread know.

Subject: Re: V2.0 Best Testing Files Ever
Posted by cdyancey on Wed, 08 Feb 2017 19:31:00 GMT
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I had it sorting lists like those in one pass also. The longer method is the correct method. You can
tell based on some of Lusth's tests from a previous post.

Subject: Re: V2.0 Best Testing Files Ever
Posted by daweil on Wed, 08 Feb 2017 20:15:24 GMT
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Heres what I got:

Also, can we get a confirmation on t-int4 and other test cases that have homogeneous elements
minus one?

running ssort on integer ex 1 from assigment instructions
running sqsort on integer ex 2 from ass instructions

running sqsort on random integers some repeats

running sqsort on all but one integer the same

running sqsort on mostly the same integers

running sqsort on real ex

running sqsort on real all similar
I think that there's still some ambiguity to the algorithm instructions.

Say we had [1, 1, 2, 1, 1, 1] as our input integer data.

The stack is initially empty, so we'll dequeue 1. We compare this to the next value, which is also 1.

We now have 2 choices (quoted directly from the assgn1 page that I just refreshed):

1) "Move an item from input directly to output. Do this if the item just dequeued from the input is less than the item now on the front of the input queue."
2) "Move an item from input to the stack. Do this if the item just dequeued from the input is greater than the item now on the front of the input queue."

Here's my point: NEITHER of these cases clearly define what to do in the case that the dequeued value equals the next value in the input queue.

I believe it's possible to have the value added to the output queue OR the stack and still adhere to the algorithm instructions.
If Lusth fails to post on here to address this issue David Weil apparently talked to him about it. Lusth said that "It's not about efficiency. Brandon's results are wrong and that I (Jbmizzell) am right.

---

I'm Brandon... By the way...

---

After talking with Lusth, the algorithm does not specify how to handle equivalent values. Lusth ran the test case:

\[ [3,3,3,3,3,4,3,3,3,3,3,3] \]

Which resulted in the following print:

\[
[3,3,3,3,4,5,3,3,3,3,3,3] \\
\]

bmbaker1 wrote on Wed, 08 February 2017 15:14 I'm Brandon... By the way....

No I'm Spartacus.

---

So when printing strings out, we are to put double quotes around each one correct? That's how
the example is printed out but I don't see any mention of it specifically.

Subject: Re: V2.0 Best Testing Files Ever
Posted by davidmccoy on Wed, 08 Feb 2017 22:22:33 GMT
Use double quotes: http://beastie.cs.ua.edu/forums/index.php?t=msg&th=1571&goto=7177#msg_7177

Subject: Re: V2.0 Best Testing Files Ever
Posted by lusth on Wed, 08 Feb 2017 23:35:49 GMT
The algorithm is indeed ambiguous on what to do if equal. So I will only be testing with unique numbers in the cases where there could be multiple correct outputs.

BTW. I threw in the equal case with the less than and with the greater than.

Subject: Re: V2.0 Best Testing Files Ever
Posted by bmbaker1 on Thu, 09 Feb 2017 00:15:56 GMT
Will someone post there results for:

4 5 4 5 5 7 2 7 5 4 2 7

Subject: Re: V2.0 Best Testing Files Ever
Posted by bhpauken on Thu, 09 Feb 2017 00:23:20 GMT

[4,5,4,4,5,5,7,2,7,5,4,2,7]
[5,4,4,5,7,5,4,7,5,4,2,7,2]
[5,4,7,5,5,4,7,5,4,4,7,2,2]
[5,7,5,5,4,7,5,4,7,4,2,2]
[7,5,5,7,5,4,4,4,4,2,2]
[7,5,5,7,5,5,4,7,4,2,2]
[7,5,5,7,5,5,7,4,4,4,2,2]
[7,5,5,7,5,5,5,7,4,4,4,2,2]
[7,5,7,5,5,7,5,5,4,4,4,2,2]
[7,7,5,5,5,7,5,5,4,4,4,2,2]
That is what I got.

Subject: Re: V2.0 Best Testing Files Ever
Posted by jjlukas on Thu, 09 Feb 2017 03:17:06 GMT

If you pass in a sorted list, it should print out the list again, i.e. [1,1,1,1] should display as [1,1,1,1]
[1,1,1,1]

Subject: Re: V2.0 Best Testing Files Ever
Posted by jjlukas on Thu, 09 Feb 2017 03:31:34 GMT

And, the only two tests that did not match took the same amount of steps, but my algorithm made a different choice when handling multiple values, so these two tests are things that will not be tested because of the ambiguity correct?

34,35c34,35
< [56,3,2,9,9,23,9,8,7,4,2,2,8,2,1]
< [56,3,9,23,9,9,8,7,4,2,2,8,2,1]
---
> [56,3,9,23,9,8,7,4,2,2,8,2,1]
> [56,9,23,9,8,7,4,3,2,2,8,2,1]

62,64c62,63
< [8.625000,-8.262000,27.269000,35.048000,0.301000,-4.183000,-6.366000,-6.366000,43.832000,43.832000,-6.366000,-8.262000]
< [8.625000,35.048000,27.269000,0.301000,-4.183000,-6.366000,43.832000,43.832000,-6.366000,-6.366000,-8.262000]
< [35.048000,27.269000,8.625000,0.301000,-4.183000,43.832000,43.832000,-6.366000,-6.366000,-8.262000]
---
> [8.625000,-8.262000,27.269000,35.048000,0.301000,-4.183000,-6.366000,-6.366000,43.832000,43.832000,-6.366000,-8.262000]
> [8.625000,35.048000,27.269000,0.301000,-4.183000,43.832000,43.832000,-6.366000,-6.366000,-8.262000]

Subject: Re: V2.0 Best Testing Files Ever
Posted by daweil on Thu, 09 Feb 2017 04:12:59 GMT

bmbaker1 wrote on Wed, 08 February 2017 18:15Will someone post there results for:
I got:

```
[4,5,4,4,5,5,7,2,7,5,4,2,7]
[5,4,4,5,7,5,4,7,5,4,2,7,2]
[5,4,7,5,5,4,7,5,4,4,7,2,2]
[5,7,5,5,4,7,5,4,7,4,2,2]
[7,5,5,7,5,4,4,7,4,4,2,2]
[7,5,5,7,5,5,4,7,4,4,4,2,2]
[7,5,7,5,5,7,4,4,4,4,2,2]
[7,7,5,5,5,7,5,4,4,4,4,2,2]
[7,7,5,5,5,7,5,5,4,4,4,4,2,2]
[7,7,5,5,5,5,7,4,4,4,4,4,2,2]
[7,7,5,5,5,7,5,5,5,4,4,4,4,2,2]
[7,7,7,5,5,5,5,4,4,4,4,4,2,2]
```

...ya scrub.

---

Subject: Re: V2.0 Best Testing Files Ever
Posted by luxth on Thu, 09 Feb 2017 12:01:35 GMT

jjlukas wrote on Wed, 08 February 2017 21:31:And, the only two tests that did not match took the same amount of steps, but my algorithm made a different choice when handling multiple values, so these two tests are things that will not be tested because of the ambiguity correct?

Correct, if by multiple values you mean duplicate values.

---

Subject: Re: V2.0 Best Testing Files Ever
Posted by Rjharter on Fri, 10 Feb 2017 00:04:31 GMT

When running the real number tests, I occasionally have numbers that are plus or minus 0.000001. So, for example, I have a 27.268999 instead of 27.269000.

Does anyone have any guidance for me as to how to fix this issue? When displaying the real numbers, I am using %f.
Not all real numbers are representable in C floating point numbers, so C tries to get "close". Nothing you can do about it.

That said, 27.269 does not seem to be one of those numbers. Are you reading 27.269 as a double or a float?

double x = readReal(fp);

or

float x = readReal(fp);

---

Subject: Re: V2.0 Best Testing Files Ever
Posted by Rjharter on Fri, 10 Feb 2017 01:58:02 GMT

Thank you, that was the issue. When I changed it to double from float it got rid of that problem.

---

Subject: Re: V2.0 Best Testing Files Ever
Posted by jkmitchell2 on Fri, 10 Feb 2017 21:59:17 GMT

So, how is diff supposed to work. I'm using @davidmccoy test files. When I use an online diff, http://www.mergely.com/editor, the outputs are the same, but diff in Bash gives me an output like 1,91c1,91. Then it lists every line in the two files.

---

Subject: Re: V2.0 Best Testing Files Ever
Posted by bmbaker1 on Sat, 11 Feb 2017 02:33:12 GMT

I believe that means that at least one line is missing. Diff then sees that no 2 lines in the files are the same. That happened to me when I did not realize that I didn't print out the 'testing blah blah blah' line at the top of the output file.