To print higher-resolution math symbols, click the
Hi-Res Fonts for Printing button on the jsMath control panel.

Lab 6 Grading Guidelines last modified by Aaron Bloomfield on August 13, 2013 11:27:15 AM EDT

Lab 6 grading guidelines

Pre-lab

Out of 10 points. This lab part **is** expected to compile.

Note that execution runs use some of the data from the lab 6 data directory in Resources.

- 10 points: HashTable and WordPuzzle fully implemented and produce correct output. (Take off a point if output format does not match correctly with the files supplied in Collab, but is otherwise correct)
- 9 points: HashTable and WordPuzzle fully implemented and produce correct output except for missing either direction value or starting position, or third execution exceeds time limit.
- 8 points: HashTable and WordPuzzle fully implemented and produce correct output except for printing duplicate words.
- 6 points: HashTable and WordPuzzle fully implemented and kind of works, or should work, but doesn't. This includes when the piece location, or direction, or words found is incorrect.
- 4 points: HashTable and WordPuzzle fully implemented, nothing works, and doesn't look like it should work.
- 2 point: Code looks half-finished
- 1 point: They submitted something for the code

Pre-lab input

There are 5 execution runs for this pre-lab:

1. with 3x3.grid.txt and words.txt
2. with 4x7.grid.txt and words.txt
3. the same as the previous execution (4x7.grid.txt and words.txt), but with the output run through diff and compared to 4x7.out.txt. The diff is done on the sorted versions of the two files.
    1. Note that this should produce almost NO output if their files matched ours. We ignore whitespace and capitalization issues, but the punctuation characters that they printed may not match
4. with 50x50.grid.txt and words.txt
5. the same as the previous execution (50x50.grid.txt and words.txt), but with the output run through diff and compared to 50x50.out.txt. The diff is done on the sorted versions of the two files.
    1. Note that this should produce almost NO output if their files matched ours. We ignore whitespace and capitalization issues, but the punctuation characters that they printed may not match

Pre-lab output

For the first run, the output should be as follows:

```
S (0, 1):       ban
N (2, 1):       nab
W (1, 2):       nay
NE(2, 0):       jag
4 words found
Found all words in 0.00038 seconds
```

For the remaining runs, the diff execution run (3 and 5) will allow one to see the difference between the submission's answer and the solution on Collab. Note that the diff is done on the sorted versions of both those files, and all spaces and tabs are removed, so the output may look a bit funny. Due to the ordering of the files to diff, any line with a '>' in front of it is something that was in the solution file, and not in the student's submitted file; likewise, any line with a '<' in front of it was a line in the student's submitted file, but not in the solution.

In-lab

Out of 10 points. This lab part is **not** expected to compile, but still expected to run.

Note that the execution runs require an a.out file that prints an integer as the last line. We used the following program:

```
#include <stdio.h>
#include <stdlib.h>
#include <sys/time.h>
#include <limits.h>

int main() {
  struct timeval tp;
  gettimeofday(&tp,NULL);
  long vall = tp.tv_sec + tp.tv_usec;
  int vali = vall % INT_MAX;
  srand(vali);
  printf ("%dn", 50+rand()%10);
}
```

The grading guidelines are:

- 7 points: inlab6.XXX.
  - Each of the following is listed as what should be in their report in the lab pdf and each is worth 1 point each:
    1. Stated if their implementation produced the correct results and if they had to reformat their output.
    2. Stated how much faster their program was with the -O2 flag.
    3. Stated the speed of their implementation and how fast it ran on the 250x250 grid using words.txt
    4. Stated the big Oh running speed of their program in terms of R, C, and W.
    5. Stated the problems encountered or if they did not encounter any problems.
    6. Report was about a page in length single spaced.
  - Other deductions:
    - -0.5 if the big O run time is incorrect or assumed finding words in table is O(1)
    - -0.5 if missing the run time for 300x300 grid but having the run time for 250x250 grid and vice versa
    - Some students were not able to get timing results for these grids because their computer / code ran too slowly; -0.75 points if they at least gave the performance for some other grid
  - The following are point deductions, once the grade (out of 6) is determined for this part:
    - Note that two points may be deducted for extremely short responses
    - -4 if it's a format that isn't approved (we allow: .doc, .docx, .pdf, .odt, and .rtf); zero credit if they submitted a raw text file
  - Everyone gets 1 point for submitting a non-empty file
- 3 points: averagetime.sh shell script
  - 3 points if it works properly (as per the execution run), and follows the guidelines specified in the lab
  - 2 points if it either doesn't follow the guidelines, or has a problem running, but is mostly correct
  - 1 point if it was a valid attempt, but is mostly incorrect
  - 0 points if not submitted, or is an empty file
  - no points off if they did or did not multiply their results by 1000 (to convert milliseconds to seconds, for example)

In-lab Input and Output

For the averagetime.sh script, the input is the names of the dictionary and grid files. They are supposed to be passed to the executable (a.out), but our executable doesn't pay attention to command-line parameters. Instead, the executable prints a random integer between 50 and 59 (inclusive). So their average should be in that range.

Post-lab

Out of 10 points. This lab part **is** expected to compile.

- 3 points: hash table code, which is based on their execution runs
  - The input and output runs for the post-lab are the same as with the pre-lab
  - 3 points for correct output, as specified in the pre-lab section
  - 2 points for output that is basically correct, but differs in formatting (as determined by the diff runs)
  - 1 point for output that is more-or-less correct, but they are missing a bunch of words here and there
  - 0 points: incorrect output.
  - If their code does not run, then they get zero credit for this part.

- If their code does not compile, then they get zero credit for this part (since it does not run) AND the compilation penalty
- One point was taken off for not including the makefile.

- 7 points: postlab6.XXX, which includes the optimizations that they included in their hash table code
  - The 7 points is split into three parts, worth 2, 2, and 3 points, respectively
  - 2 points: Big Oh running time is explained in detail for all aspects of their application in terms of R, C, and W (give them 1 point if they are missing something from these requirements and 0 points for not including Big Oh analysis)
  - 2 points for including the timing information
    - Instead of a point allocation for this part, instead we'll list what points are taken OFF for (minimum of 0 for this part)
    - -1 point: Timing information NOT included on two input files of their choice.
    - -1 point: Specification of machine used is NOT included.
    - -1 point: Explanation NOT included of why performance was worse when they chose a new hash function to make performance worse.
    - -1 point: Explanation NOT included of why performance was worse when they chose a new hash table size to make performance worse.
  - 3 points for the optimizations they included
    - including 3 optimizations is reasonable, so give 1 point per optimization
  - The following are deductions to the score for this part, once the score (out of 7) is computed for this part (minimum of 0 for this part)
    - -2 if it's too short (don't be overly picky here, but if it's below what we are looking for, take off two points)
    - -4 if it's a format that isn't approved (we allow: .doc, .docx, .pdf, .odt, and .rtf); zero credit if they submitted a raw text file

Post-lab input and output

The input and output are the same as with the pre-lab.

Untitled note

Find a notebook

Add tag

Add comments

Version 6.0.6: c128369/1.0.1.250

Web Clipper tutorial

Options

Saving clip...

To:

Share

Save

Selection

PDF