CS1020E: DATA STRUCTURES AND ALGORITHMS I

Practical Exam 1 – MehBaaMoo

(Week 6 Friday, 16 September 2016, start at 7pm)

Instructions


Open book (hardcopy)


1hr 30min + 10min

1. The TA will login to windows for you before the session
   If you reboot your PC, ask the TA to login for you again
2. You will be given a new UNIX account for the practical exam
   Only use this account to develop your program
3. The ONLY programs you are allowed to open are SSH Secure Shell Client, and the local C++ references
   You may open more than one window of each. Opening any other program is cheating
4. Do **NOT develop your program in additional files**
   Do **NOT change the filename / location of existing files**
5. Ensure you **enter your full name, user ID** (starting with 'e') and **login id of the new account** given to you in the comments at the **top of each of file** you code in
6. At the end of the session, logoff but do not shutdown
   You are NOT free to leave until the TA tells you to do so
   Remain quietly in your seats. This is an official assessment
7. If you have any question, raise your hand and the TA will attend to you
   Attempting to communicate with others is cheating; disciplinary action will be taken against you
8. If you lock your screen using Ctrl+S, press Ctrl+Q to unlock it
   If you move your job into the background (Ctrl+Z), type `fg` to bring it back into the foreground
   i.e. Do NOT press Ctrl+Z
   If your program runs in an infinite loop or takes too long to complete, press Ctrl+C twice to terminate
   To simulate end-of-file when entering input from the keyboard, press Ctrl+D

Submission Instructions

Write your **program ONLY in the files** meh.cpp, baa.cpp, and moo.cpp. Do NOT change the file names of these three files, as we will only upload these files to CodeCrunch. Do NOT modify the other files, as they will NOT be uploaded to CodeCrunch.

Advise

- Save, compile and test your program frequently
- Few functionalities work > Program with all functionalities half done > Non-compilable code
- With good design and coding style, you will help yourself
- Design system and algorithm **completely** on paper, prove that it works, before coding

Grading

30% for coding style and design, **conditional** on attaining at least 20% for correctness:

- OO, modularity, variable scope
- Naming of identifiers, appropriate data types
- Meaningful and appropriate comments
- Indentation

70% for correctness, with partial marking:

- 25% for being able to read input, parse it, call appropriate method(s), and get the I/O *format* right
- 25% for system class' functionality
- 15% for implementation of the **Meh** and **Baa** classes
- 5% for blurp functionality

Warnings:

- Bypassing **Meh** or **Baa** class(es) will result in correctness marks being capped at 35%
- Non-compilable code will result in (total marks /= 2); no excuses will be entertained
- Commented-out code will be ignored
- There will be heavy penalty if your program does not end up being transferred onto CodeCrunch, or we cannot identify your program due to missing information at the start of each file

Testing

You are advised to examine the **skeleton** and **test data** files **provided** in your plab account, so that you can work with the given design. Once again, design your system to support the basic functionality **completely** before coding, and test your code incrementally. Make sure your code can always be compiled.

Compiling your program:

```
g++ -std=c++11 *.cpp
     OR
g++ -std=c++11 meh.cpp baa.cpp moo.cpp
```

Running with stdin and stdout redirected:

```
a.out < moo1.in > 1.a
```

Comparing output:

```
diff moo1.out 1.a
```

Problem 

You are given the ...

Input/Output Format

There will be ...

[Blurp subtask on the next page...]

** Don't be **greedy**. Make sure your program can compile... **

RBlurpe GBlurps

There are some ...

Finally

Re-read the first two pages of this document.

- End of PE 1 Document 

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