Exam Review 2016

ALU (algorithm logic unit)

CPU (central processing unit)

Binary system

Compiler

Interpreter

Assembler

Supercomputer

Microcomputer

Mainframe

Algorithm

Multiprocessing

Memory Sizing in bytes

Computer Generations

Coding

Processing

Computer Science 110 Exam January 2016

# Programming Sheet Part 2 (0b10): Practical Coding Skills

# NUMBER GUESSER

**Description:**

Guess the number game. Create a simple game where the computer creates a random number between 0000 and 9999 inclusive. The user must guess the number. Computer will keep track of how many guesses it took to guess the number. A Low Score will be kept by the program for as long as it is running in the computer and for as many attempts that are made, but *does not need* to store the high score to a file. Display may be done by console or graphically using graphics.py module. If guess is lower than number or higher than number, tell the user respectively.

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**Practical Coding Section Marking Scheme**

Your program should have a header which should look like this if Mr.Colwell was submitting it:

# CS110Exam\_***Colwell***\_***C***\_Block.py

*Replace with your last name, and the letter of the block you took the class in.*

*Pseudo code needs to be your plan to create the short program. See Section A.*

# Colwell, Andrew (Jan, 2016)

'''

Pseudocode:

import the random module

define a function to …

'''

**Section A: (10 points) Pseudo Code**

The pseudo code is an important step. The pseudo code is to be created as a Document String in the coding header. Your function must follow this plan. If you work on this section, it will be easy to do the coding part.

**Section B: (40 Points) Coding**

Use your pseudo code to help you code the individual parts of the program as much as possible. I am looking for your ability to code efficiently, and effectively using the principles that we learned. Use of hash marks (#) for comments explaining your code is expected. Code will be marked based on the following chart.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Points Awarded: | 1 2 | 3 4 5 | 6 7 | 8 |
| Code function | Code does not work;  Commands used incorrectly | Program is not correct; Some commands incorrect | Some commands not used correctly | Code works; All commands used correctly; Prints out exactly |
| Use of variables | Not used | Used but not effective, confusingly named | Naming not clear; variable assignment works in code | Clear naming structure and use, easy to read |
| Use of looping structures | Not used | Loops that are ineffective or unnecessary | Loops allow the program to work, but difficult to follow | Loops considerably effective, easy to read |
| Ease of reading | Very difficult to follow logic; no clear relationship to flowchart; no hash marks | Coding follows basic idea of flowchart, but not easy to follow; few hash marks | Follows flowchart; code is mixed together; reader needs to review code often; some hash marks | Follows flowchart, commented well, very easy to know how code processes; hash comments on code clearly |
| Efficient coding | Coding does not show any attempt to shorten or simplify data processing | Coding has repetitions and extra code that is unnecessary | Code takes several lines to do a simple function; no use of functions | Code is short but still easily read; functions used effectively |

**Section C: (10 Points) Documentation and Submission**

This section is about following directions exactly. Save the program with the following naming pattern in your U:\ drive.

CS110Exam\_***lastname***\_***C***\_Block.py (change ***lastname*** and ***C*** to your last name, and the period you take the course)

Then email Mr. Colwell the file using the following information from the NBSS student email server

Send to: andrew.colwell@nbed.nb.ca

Subject: CS110 Exam

Body of email: Hi Mr.Colwell, attached is the program I wrote for the CS110 exam.