Introduction to:
Computers & Programming:
Post-Midterm 1 Review

Adam Meyers
New York University
Summary

• Some Procedural Matters
• Review of Concepts from Test
• Review of Part 1
• Review of Part 2
• Lab Tomorrow
# Grading Curve

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Raw Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>94 and Above</td>
</tr>
<tr>
<td>A-</td>
<td>90-93</td>
</tr>
<tr>
<td>B+</td>
<td>85-89</td>
</tr>
<tr>
<td>B</td>
<td>81-84</td>
</tr>
<tr>
<td>B-</td>
<td>76-80</td>
</tr>
<tr>
<td>C+</td>
<td>72-76</td>
</tr>
<tr>
<td>C</td>
<td>67-71</td>
</tr>
<tr>
<td>C-</td>
<td>60-65</td>
</tr>
<tr>
<td>D+</td>
<td>54-59</td>
</tr>
<tr>
<td>D</td>
<td>35-53</td>
</tr>
<tr>
<td>F</td>
<td>34 and Below</td>
</tr>
</tbody>
</table>
Raw Score vs Letter Score

• Only the Letter Score counts for purposes of the final grade, e.g., there is no difference between a 72 and a 74 if both are part of the same range.

• It is only worth haggling over your grade if:
  – the change in score will effect your letter grade, e.g.,
    • raw score is on the borderline between 2 grades
    • discrepancy is worth 5-10 points
    • Etc.

• Of course, understanding everything you got wrong is important regardless of the grade.
Your Final Grade in Python

- **def calc_grade1(Quiz, HW, Mid1, Mid2, Final):**
  
  # Quiz is the average grade for quizzes
  # HW is the average grade for programming assignments
  # Mid1 is your Midterm 1 grade
  # Mid2 is your Midterm 2 grade
  # Final is your grade on the Final Exam
  
  Grade = (Quiz * .05) + (HW * .2) + (Midterm1 * .20) + (Midterm2 * .20) + (Final * .35)
  return(Grade)

- **def calc_grade2(Quiz, HW, Mid1, Mid2, Final):**
  
  Grade = (Quiz * .05) + (HW * .2) + (max(Midterm1, Midterm2) * .30) + (Final * .45)
  return(Grade)

- **def final_grade(Quiz, HW, Mid1, Mid2, Final):**
  
  Grade = max(calc_grade1(Quiz, HW, Mid1, Mid2, Final), calc_grade2(Quiz, HW, Mid1, Mid2, Final))
  return(Grade)

- **Bonus for A Grade on 2 Midterms:** One A counts as an A+ for purpose of calculating average
Grading Considerations

• Therefore:
  – If you do better on the 2\textsuperscript{nd} midterm than the first, only the 2\textsuperscript{nd} midterm grade will probably count
  – If you get As on both midterms, you get a bonus of .3 added to one midterm
• Thus improvement over the course of the class can influence the final grade.
• Main purpose of final grade: Indicator of state of knowledge at end of class.
• Administrative purposed:
  – C is the minimum grade in this class if you want to take the JAVA programming class.
  – A or A- average is recommended if you want to be a CS major
Printing

• Quotes are used to delimit a string, but when a string is printed, delimiters are not printed
  – 'abc' can be returned
  – But 'abc' is printed as: abc

• Any character following a backslash is an escaped character, e.g., '\\abc\tK' prints as: \abc K
  – '\\' represents a single backslash character
  – '\t' represents a tab character (which is printed like a series of spaces)

• See Question 3 from test
Loops and repeats with *

• 'B' * 5 → 'BBBBB'
  – print('B'*5) → BBBB

• 'Blah' * 5 → 'BlahBlahBlahBlahBlahBlah'
  – print('Blah'*5) → BlahBlahBlahBlahBlahBlah

• If these are embedded in a loop they repeat

• See Question 1 from both tests
while and if are different

• Only if is followed by else or elif
  – If ...:
    XXX
  elif ...:
    XXX
  else:
    XXX

• while begins a loop and is not connected to elifs or else
  – while expression_containing_variable:
    XXX (including possible change of variable that ends loop)
break and return

• **break**
  – ends a loop, statements following break at the same level of indent do not execute
  – not covered in class because it is possible to exit a loop without **break**

• **return**
  – returns a value from a function
  – The function is exited immediately after **return**
  – Statements following **return** don't execute
Tests and Answers

• Test Version1 (Section 007)
  – Test:  http://cs.nyu.edu/courses/fall17/CSCI-UA.0002-007/midterm1_version1.pdf
  – Answers: http://cs.nyu.edu/courses/fall17/CSCI-UA.0002-007/midterm1_version1.py

• Test Version2 (Section 011)
  – Test:  http://cs.nyu.edu/courses/fall17/CSCI-UA.0002-007/midterm1_version2.pdf
  – Answers: http://cs.nyu.edu/courses/fall17/CSCI-UA.0002-007/midterm1_version2.py
Middle of Term Grades

- .05 * Quizzes + .45 * HW + .5 * Midterm
- Unofficial Grade – will not go on your transcript
- Purpose: Advisory Only