

## Homework #2 Data Structures

Due: Feb. 9 (Saturday at 11:59 PM)

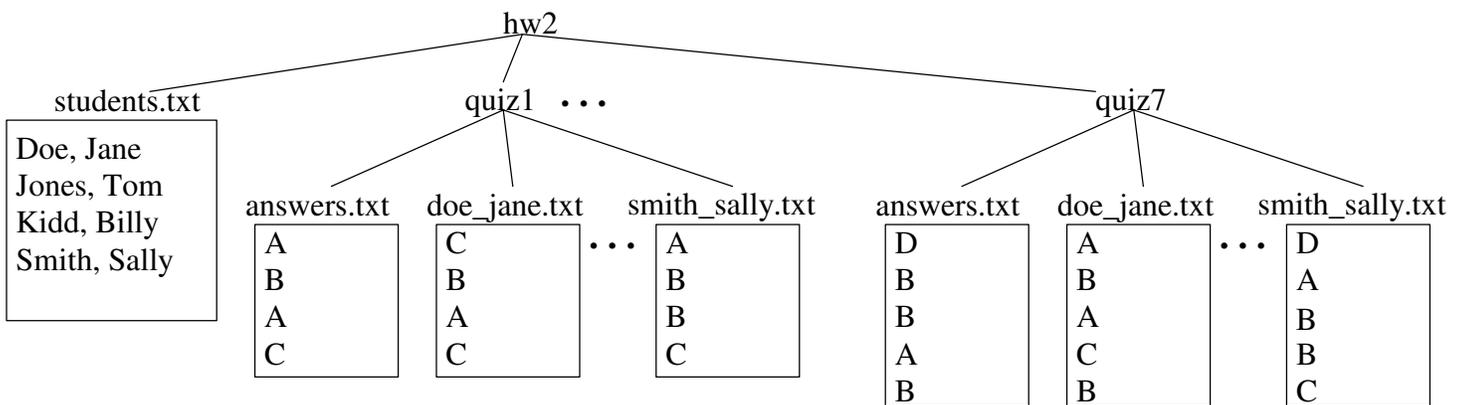
### Electronic Quiz Grader Program

The eLearning multiple-choice-quiz grader has broken down, so Professor Smart N. Lazy wants you to write a program (`quizGrader.py`) to grade the class's eLearn quizzes. After extracting the files from:

<http://www.cs.uni.edu/~fienup/cs1520s13/homework/hw2.zip>

you will find that the `hw2` folder contains:

- `students.txt` - a text file containing the student names in the class
- **one or more** `quiz#` directories - each directory contains an `answers.txt` text file with the correct answers and text files for the students who took the quiz. The student file names are `lastname_firstname.txt`



Your program should run from inside the `hw2` directory to generate a `gradeReport.txt` file that looks something like:

Student Quiz Report		
Student	Total Quiz Points	Overall Quiz %
<hr style="border-top: 1px dashed black;"/>		
Doe, Jane	30	71.4
Jones, Tom	40	95.2
Kidd, Billy	35	83.3
Smith, Sally	36	85.7
Points Possible	42	

**For extra credit**, you can report more details (e.g., individual quiz scores for each student):

Student Quiz Report						
Student	Quiz 1	Quiz 2	...	Quiz 7	Total Quiz Points	Overall Quiz %
<hr style="border-top: 1px dashed black;"/>						
Doe, Jane	3	5	...	2	30	71.4
Jones, Tom	4	6		5	40	95.2
Kidd, Billy	3	4		4	35	83.3
Smith, Sally	3	6		1	36	85.7
Points Possible	4	7		5	42	

Save and run your program (called `quizGrader.py`) in the `hw2` folder.

When you write your program, be sure you:

- think about the functional-decomposition (top-down) design before you start to write code
- use meaningful variable names with good style (i.e., useCamelCase)
- use comments (""" Multi-line Comment """) at the start of the program **and** immediately after each function definition describing what they do (see lab1 `diceOutcomes.py` program)
- use a main function (see lab1 `diceOutcomes.py` program) located at the top of program with a call to it at the bottom to start execution
- use global constants where appropriate with good style (ALL\_CAPS\_AND\_UNDERSCORES). (Put your global constants after your initial comments describing the program and before your main function definition so they can be found and changed easily in future versions of your program.)

**Submit your homework electronically at [https://www.cs.uni.edu/~schafer/submit/which\\_course.cgi](https://www.cs.uni.edu/~schafer/submit/which_course.cgi)**

**Submit the single file, hw2.zip containing the following:**

- **quizGrader.py** (your Python program)
- **design.doc** (or design.pdf, or design.txt, or design.rtf) a document describing the design of your program including a functional-decomposition diagram with text describing each function (see lab1 description)
- original data files and directories contained in hw2.zip downloaded (students.txt, etc.)