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/*****
* BASIC INFORMATION ABOUT THIS STATA DO-FILE:
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* This do-file allows you to flexibly grade raw multiple-choice bubble-form data.
*   - It can be run on a computer with Stata version 10 or higher
*   - It can be run by a Teaching Assistant (TA) in the graduate computer lab
*   - You do NOT need Stata to use the output from this do-file: files and reports
*     can be opened with Microsoft Excel, Word, or any text editor
*
* New features available as of October 2012:
*   - Addresses the new 10 digit U of T Student Numbers
*   - Works with U of T's new scanning software
*   - Allows a non-zero minimum point value for each question if you wish
*   - Allows simultaneous processing of multiple versions of the test that differ
*     in the answer ordering, the question ordering, or even differ in the
*     questions themselves so long as all versions have the same number of
*     questions and total possible points (otherwise must be processed separately)
*   - Detailed marks output includes points earned on each question so that you
*     can assess a student's marks on different parts of a test if you wish
*
* Continuing features:
*   - Easy to use no matter how you currently keep your student information
*   - Allows you to accept more than one answer as correct should the need arise
*   - Allows you to adjust students' marks (what our students call "curving")
*   - Provides you with a detailed report of student performance for each question
*   - Produces a file that you can post that lets students see what answers they
*     wrote for each question and whether or not it is correct: no need to return
*     the original bubble forms to students (stops ex post cheating).
*   - Gives a histogram of students' marks that you can cut-and-paste or post
*   - Supports 4 different versions of the test (i.e. question order scrambled)
*   - Supports tests where point values vary across questions
*   - Uses only final digits of the student # for the marked answers to be posted
*   - Supports up to 140 questions (formerly limited to 50)
*   - Added flexibility if you choose to accept more than one answer as correct
*   - (However, students may only choose one of the five answers A - E or leave
*     it blank.)
*   - Allows analysis by section (lecture section, tutorial section, or other)
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* Inputs:
*   - A file containing scanned answers (machine produced) (comma delimited: .csv)
*   - A file containing the list of registered students (*.csv)
*   - Your entries below in this do-file
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* Outputs:
*   - A file with students' marked answers and last few digits of their student
*     id # that can be posted. Capital letters for correct answers and lower case
*     letters for incorrect answers. (mcq_marks_web_site_*.csv) A formatted
*     template for Excel that you may cut-and-paste into is available at:
*     http://homes.chass.utoronto.ca/~murdockj/teaching/mcq_marks_web_site.xlsx
*     Please use that template for posting your results for students: you may
*     convert it to a pdf file for maximum accessibility for students.
*   - A file with the detailed students' marks for your records (mcq_marks_*.csv)
*   - A file with a detailed report on students' performance (REPORT_*.txt)
*   - Two picture files with histograms of students' marks (HISTOGRAM_*.emf and
*     HISTOGRAM_alt_*.emf): mathematically identical, choose one that looks better
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* How to use:
* (1) Place this do-file and all required (input) files in a SINGLE directory (folder)
* (2) Read the instructions below that explain what you must enter (e.g. correct answers)
*     in this do-file. Lines where you are expected to enter something marked by the
*     symbol /####/. Complete these actions according to the instructions.
*     > Do NOT change anything except where asked (i.e. at lines starting with /####/)
*     > Read and FOLLOW INSTRUCTIONS VERY PRECISELY.
* (3) Double click on this do-file to run it
* (4) Carefully review the grade report (REPORT_*.txt) to ensure that you did what you
*     did what you meant to do. (This code checks your inputs and alerts you to errors
*     or possible errors that you will need to fix or double-check.)
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