Using the Student Response System for Multiple Choice Untagged Questions

The multiple choice program `mchoice` displays a histogram of results from a 5 choice multiple choice question. It has provisions for accumulating results twice, before and after a discussion period, but can be used with only one period.

Instructions for the students are on a separate sheet, suitable for display on a projector. In particular, they tell the student how to erase an answer if (s)he wishes to change it. **Important Note:** Entering a second answer causes the response to be considered invalid, it does not replace the previous answer. To change a response, the student must first erase the previous answer by pressing #, and then press the new answer.

The results are stored on a file on a $3\frac{1}{2}$ " floppy disk, which each instructor should keep in his/her personal possession. The results stored are only the numbers of students choosing each choice — mchoice uses the SRS in *untagged mode*, meaning no information about who gave which answer is provided.

To run `mchoice` at the `C:\>` prompt, type:

```
C:\> MCHOICE
```

The program first prompts for the name of a file in which to store the data. This file *must* go on the floppy disk. Like all MSDOS files, the output can only be stored in a file with a maximum of 8 letters with a 3 letter "extention", separated by a period. Only normal, alphanumerical characters are accepted, together with hyphens. Spaces, tabs, commas and control-keys may not be included in a valid filename. The program does no validity checking on the filename; it is the instructor's responsibility to follow MS-DOS's filename regimen.

Once the filename, such as `TEST.1`, has been typed in, the screen goes black. To activate the first histogram, the instructor hits the "Enter" key. Immediately, the first histogram is drawn, the keypads are activated, and students are free to start answering the question.

While the students are answering the question, the instructor should type in a question label to associate a meaningful or trackable label to the responses recorded in the data file. This label can be up to 30 characters long, including spaces. It can be a number or a useful mnemonic or title. The prompt for this entry is in the upper-left hand corner of the screen, above the first histogram. When the instructor is finished typing in the question label, (s)he may optionally press the “Enter” key to signal the end of the question label. No changes can be made once enter is hit or once the `F1` or `F9` key (see below) has been hit.

To end the first session of recording results, the instructor has two options. The first option allows the recording of a second set of responses, while the second skips to the end for this question.

To allow the second set of responses, the instructor presses any of the `F1`, `F2`, `F3`, or `F4` keys. This freezes the first histogram, deactivates the keypads, and waits for the instructor to press `F5`, `F6`, `F7`, or `F8`, which signals the start of the second response period.

To end the second session (or to end the first session without allowing a second session) the instructor should press any of the `F9`, `F10`, `F11`, or `F12` keys. This will freeze the screen, allowing the instructor to discuss the results with the students. By pressing the “Enter” key, the graphs are cleared, and a text-based format of the results showing explicitly how many times each answer was chosen is shown, and identical information is saved to the disk file. By pressing the “Enter” key once more, the instructor is brought to a blank screen, beginning a new histogram cycle.

At any time, the instructor may press the “Esc” key to exit from the program. It is inadvisable to press it while the histograms are displayed, for the program only writes the data to the disk when it is displayed in the text format on the screen. Pressing it during the display of the histograms will lose the data without saving it to disk.