**DIG 3134 - Project 2 - Wheel of Fortune**

**Moshell - Spring 2011**

**Revised 9 February on the basis of class input**

The purpose of this project is to introduce you to file processing, and - more importantly - to continue developing your debugging skills.

Here's a brief summary of the desired behavior of the game.

1) A text file contains any number of lines of text. These phrases consist of common cliches, so as to make them easy to recognize. For instance, the file might contain

A penny saved is a penny earned

Love is blind

It takes two to tango

One line of this table is designated as the 'current text' at any time. As play progresses, each line of text in turn is used as the current text.

2) A text display is defined as a number of boxes drawn on the web screen equal to the number of characters (including spaces and punctuation) in the current text. The boxes containing blanks are to be drawn in a distinctive way. The simplest way is to put \* in these boxes. A more sophisticated way would be to use a white background for boxes that can be filled, and to fill the blank boxes with black. You can think up any other scheme you would like, if you can implement it.

2) One 'round' of play is defined as a competition between two teams. The teams take turns guessing letters to discover the hidden phrase. The text display of the current text is initially blank. A letter is guessed and entered, and the GUESS button is clicked. If the letter matches any letters in the current text, they are revealed. Punctuation does not have to be entered; guessing can proceed without it. For instance "What's up doc?" might look like "WHAT S\*UP\*DOC \*" when all the letters have been guessed.

If a team is ready to guess the phrase, it's "all or none". If you guess wrong, your team loses that point.

The first team to guess the complete phrase (known only to the Master of Ceremonies) wins a point. The system now displays the empty boxes for the next text line. Each pair of teams will play seven rounds.

Three buttons are provided: GUESS, REVEAL, and NEXT PHRASE. If the REVEAL button is pressed, the hidden word is shown. If NEXT PHRASE is pressed, the display is reorganized, based on the next line from the file. If the file is empty, an error message is displayed: "No more phrases are available".

**GRADING:**

**Level 1: 85 points.**  Text character boxes are simply in one row, no matter how wide this makes the web page. No team tracking is involved; we simply enter a succession of guesses. It is up to the MC to either say 'no' or press REVEAL and NEXT PHRASE appropriately, and to keep score.

**Level 2: Moving up toward 90 points.**

**87 points:** Provide an on-screen message telling which team is to play next (Gold or Black).

**88 points:** Render spaces by ending one table and beginning another, rather than inserting \* where the space was.

**89 points:** Improve the formatting of the system so that it looks better than the basic text in Moshell's example. Use color, various fonts, etc. as your artistic inspiration leads you.

**90 points:** Put up the "No more phrases are available" message inside the textboxes when the file has run out of data (to make it look like another phrase has been guessed), instead of just providing a set of new blank boxes and a separate error message.

**Level 3: Above 90 points.**

Here is a set of suggestions from the class for upgrades. You may undertake these in any combination. The maximum score to be awarded is 100 points. If you have other ideas for enhancement, you are free to suggest them and I will award some appropriate number of points.

**1 point additions:**

\* Limit the number of guesses to a fixed maximum. Whoever used the last guess loses, if they cannot identify the phrase.

\* Provide a decently dressed Vanna White-like character (of either gender) to decorate the screen.

**2 point additions:**

**\*** Display a list of all the letters that have been previously guessed.

\* Provide feedback to announce that the guessed letter was found nowhere in the phrase.

\* Type in the phrase and be told that it is correct or not.

\* Let all punctuation marks in the phrase appear on the screen without having to guess them.

**3 point additions:**

**\***fold the row of letters at a space, so we don't run off the page to the right. That is, if the phrase is more than 20 letters long, then find the last space before the twentieth letter and insert </tr><tr> after that space. The result is that instead of

WITH\*GREAT\*POWER\*COMES\*GREAT\*RESPONSIBILITY

we would see

WITH\*GREAT\*POWER\*

COMES\*GREAT\*

RESPONSIBILITY

\* Provide a dropdown menu containing the remaining unpicked letters. When one of these is selected and you click the GUESS button, this is the next letter to be submitted.

\* Hang-man style graphical record of the consumption of available letters. When the dude is hanged, whoever guessed the last letter must correctly guess the phrase or they lose the round.

\* Award a higher score for lower percentage of letters in place when a successful guess is received. That is, the closer the word is to complete, the fewer points are to be given.