

Software requirements for the Hangman game

Hangman:

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Overview:

This document describes the requirements for the software implementation of the classic single-player game Hangman. A description of the game plus the requirements of this implementations are included below.

The game:

The program will generate a random 6-10 letter word for the user to figure out by choosing letters that might be included in the word. The user will have nine chances to choose a letter. If the user successfully figures out the word they will earn a point. Finding the word with seven or fewer letters chosen will earn them an additional point. If the game ends before the word is found, the user will lose a point. The user also has the option to "Give up" in middle of a round - that will minus two points their score. There will be a "Reset" button on the screen that will reset the score so the user can get a fresh start.

Software implementation:

UI elements:

The software will present the Hangman game with the UI elements listed below:

1. Ribbon(s) on top of the screen that has the following:
 - New Game button

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- Reset button
 - Give up button
 - Textbox to display game message
 - Textbox to display the score
 - Textbox to display how many tries remaining for that round
 - Textbox displaying the letters that were already chosen
2. Table in the center to display the blanks matching the number of letters in the word. The letters will be filled in to their correct spot as they are chosen
 3. Qwerty keyboard for the user to easily click the letters

Game process and rules:

- The game starts when the user clicks the New game button. Until then all buttons are faded out. The game message will say "Click 'New game' to begin playing."
- When New Game is clicked the table will be filled with textboxes matching the number of letters in the generated (hidden) word. The buttons on the keyboard become active. The game message changes to: "#-letter word | click on keyboard below to choose a letter."
- When a letter is clicked - if the word has that letter, it will show in the correct spot.
- Regardless of whether the letter is in the word or not, it will be added to the list of letters already tried. That letter will also be disabled on the keyboard. The number of tries remaining will also lessen by one.
- The user continues choosing letters until one of the following happens:

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- They figure out the word - the game message changes to "You Win! Points earned this round:# Total score:#", the score increases by the number of points they earned. The color of the word text changes.
- They don't figure out the word - the game message changed to "Game Over" - Word is '-----' - Total score:#", the score decreases by one.
- The user can also choose to "Give up" in middle of a game which will decrease two points from their score. The game message will show "No problem, you'll have another chance soon - Total Score:#", the score will decrease by two points.
- At any time during the game, the user can choose to click reset and start from the beginning. At that point the game will go back to its original state like when the form runs the first time with the message "Click 'New game' to begin playing".