Hangman

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Overview

This document describes the requirements for the software implementation of the classic game of Hangman. This software will allow a user to play a guessing game with the computer. A description of the game plus the requirements of this implementation are provided below.

The Game

Hangman is a [guessing game](https://en.wikipedia.org/wiki/Guessing_game) where the player is provided with a word and tries to guess it by suggesting [letters](https://en.wikipedia.org/wiki/Letter_(alphabet)) within a certain number of guesses. The word to guess is represented by a row of [dashes](https://en.wikipedia.org/wiki/Dash) representing each [letter](https://en.wikipedia.org/wiki/Letter_(alphabet)) of the [word](https://en.wikipedia.org/wiki/Word). If the guessing player suggests a letter that occurs in the word, the letter is displayed in its correct position. If the suggested letter does not occur in the word, an element of a hanged [stick figure](https://en.wikipedia.org/wiki/Stick_figure) is displayed. The player can win by guessing all the letters that appear in the word, thereby completing the word, before the diagram is completed. However, if the stick figure is complete — signifying that all guesses have been used, the player loses.

Software implementation

UI elements

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

* A gallows is displayed on the screen, with elements added to the picture throughout the game.
* Start Button
* New Word Button
* A set of dashes (depending on the length of the word).
* The word label (Only displayed once the game is over).
* Buttons displaying all the letters of the alphabet.
* Textbox to display letters guessed.
* Game Status Label
* Score Label

Game Process and Rules

* The game starts when the player clicks the Start Button. Until then all buttons are disabled and the game status label displays “click start to begin”.
* After the Start Button is clicked, a set of dashes appear, representing the number of letters in the word the player must guess. The game status label now reads “Guess a Letter”.
* The player can now click on any of the alphabetic letter buttons to guess a letter in the word. Once a button is clicked it becomes disabled so every letter can only be guessed once. The letter guessed will then appear in the textbox displaying all letters already guessed.
* If the word contains the letter guessed, it is displayed in its correct position. The player can then try guessing another letter.
* If the word does not contain the letter guessed, an element of a hanged [stick figure](https://en.wikipedia.org/wiki/Stick_figure) is added to the gallows.
* If the player wants to give up, they can click “new word” and they will be given a new word to try.
* The player wins after having guessed all correct letters of the word before the stick figure is completed. The game status label now displays “You Win!!” and the player gets a point. If however, the stick figure is completed, meaning all the guesses have been used and the player has not yet guessed all the letters in the word, the player loses. The game status label now displays “You Loose” and the player loses a point. The correct word is displayed in the word label.
* All buttons are now disabled and the player must click start to get a new word.