# Hangman Game Project

Assignment Overview:

Hangman is a popular word game. In this game, the player is given some number of blanks representing a word or phrase and he/she has to guess the word or phrase using at most a certain number of guesses.

Task:

Your task is to implement the Hangman game in Python and complete a reflection.

Program Specifications:

1. Output a brief description of the game of hangman and how to play.
2. Ask the user to enter the word or phrase that will be guessed (have a friend enter the phrase for you if you want to be surprised) or have the computer choose a word or phrase from a list you created.
3. Output the appropriate number of dashes and spaces to represent the phrase (make sure its clear how many letters are in each word and how many words there are.)
4. Continuously read guesses of a letter from the user and fill in the corresponding blanks if the letter is in the word, otherwise report that the user has made an incorrect guess.
5. Each turn you will display the phrase as dashes but with any already guessed letters filled in, as well as which letters have been incorrectly guessed so far and how many guesses the user has remaining.
6. Your program should allow the user to make a total of k = 6 misses.
7. You **must** use at least 3 string methods or operators in a **useful** manner.
8. Make sure you use commenting and documentation.

Assignment Notes:

* If a letter has already been guessed, output a message to the player and ask for input again.
* If the guess entered is not an alphabetic letter, output a message and ask for input again.
* Utilize the graphics library to create the graphics for the hangman game. A head, body, two legs, and two arms will be used for the user to keep track of how many misses the player has left. You may use the graphics window or the command prompt for displaying the blanks and taking/processing guesses.
* If the letter is present in the word to be guessed, fill in the blanks appropriately with this particular letter. If the complete word or phrase, the game is over and the player wins the game. Output a message telling the player they have won and quit the game.
* If the letter is not present in the word or phrase to be guessed, give a message to the player indicating that the guess is incorrect and the remaining number of chances is one less. If the remaining number of chances is 0, the game is over and the player loses. Output a message that they have lost and what the correct word or phrase was. Quit the game.

Tips/Hints

1. This project can all be done with strings, use help(str) in the Python Shell window to see all of the string methods that may be useful.
2. The membership operator “in” would be useful to see if a particular letter has already been guessed.
3. String slicing is useful to insert a letter in a string or remove a letter from a string.
4. find() returns the index at which the first instance of a substring is found in a string
5. Remember if there is an apostrophe or a dash in the original word or phrase, you should output it instead of a dash so the user doesn’t have to guess those.

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Reflection Prompt:

1. Now that you have finished the project, what are your thoughts about the overall project? Are they mostly positive or negative?
2. What were some of the most challenging parts of this project? How did you overcome these challenges?
3. How much did you plan out this program before beginning the coding?
4. What were some of the easiest parts of this project? What do you think made them easy?
5. What advice would you give to others who are completing this project?