For my portfolio project I have decided to create a game of Hangman. Hangman is a word guessing game, where the program picks a random word out a list of word you have provided it, and you try to guess the word out by asking which letters are in it. The program in return tells you if the guessed letter exists in the random word or not and where its location the word is. The catch is you only get few tries before the man gets hang. My program uses *object-oriented program* model. It uses the data that has been provided to it via *import* method which in this case is the list of words and randomly chooses a word. Then it uses a *while-loop* to iterate inside the random word and try to match the guessed letter with the letters inside the random word. It also has a count down function that with every wrong your chance to save the man decreases by one and doodled image of the man getting hanged starts to appear with every wrong guess.

OOP model has been the main drive for this code, and to implement the necessary functions and maintain a clean code, the word's list as well as the graphics have been created in a separate file and then imported in the actual game code. Random method has been used to choose a random word from the list and .upper() has been used to help filter out potential tracebacks. Sets are used to store previously guessed letters in and later printed for user to have a visual clue on what letters have been already used. Couple of while loops are used to help navigate the user through the options. Finally, if statement has been used to iterate though the letters in the word and match them with the guessed letter.

Initially the intention was to create a menu to ask user to choose difficulty of the game and implement that by how many guessed the user can have before the man gets hang, but due to lack of time the idea remains for future development.

This project has been great opportunity for me to implements what I have learned in code and the fact that I had the freedom to create a code that I found useful and practical was a plus. Among the futures of this code I can point out to the short story it creates to be more engaging, graphics and visual aspects of the code, and options to try again after no success in guessing the word.

In the future I will implement more options for the user to chose from. Difficulty level, words length, and categories of the words that they like the random word be from. This could be a good game for many students who are reliant on memorizations such as medical students that need to know exact spelling of body parts, drugs, etc. and this can help them in a way like spelling bee game for better memorization techniques.

If the user guesses the correct word the would be congratulated and the random word would appear on screen.

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Your letter, F is not in the word.
You have 4 chances left and you have used these letters:  A F E S
               | /        |
               |/
               |
               |
               |

Current word:  - E E -
Guess a letter: n

Your letter, N is not in the word.
You have 3 chances left and you have used these letters:  S N E A F

               __________
               | /        |
               |/         O
               |
               |
               |

Current word:  - E E -
Guess a letter:

That is not a valid letter.
You have 3 chances left and you have used these letters:  S N E A F

               __________
               | /        |
               |/         O
               |
               |
               |

Current word:  - E E -
Guess a letter: p

You have 3 chances left and you have used these letters:  S N P E A F

               __________
               | /        |
               |/         O
               |
               |
               |

Current word:  P E E -
Guess a letter: l

YAY! You guessed the word PEEL !!
Play Again? Y/N
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               __________
               | /        |
               |/         O
               |          |
               |
               |

Current word:  - A - - - - D
Guess a letter: k

Your letter, K is not in the word.
You have 1 chances left and you have used these letters:  S D J H K A G F

               __________
               | /        |
               |/         O
               |         \|/
               |
               |

Current word:  - A - - - - D
Guess a letter: l

Your letter, L is not in the word.

               __________
               | /        |
               |/         O
               |         \|/
               |         / \
               |

You died, sorry. The word was MARRIED
Play Again? Y/N
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And if they don't guess soon enough before they run out of word will be saddened by the image of man hanging.