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In [ ]: import random
       # Define word categories with their corresponding difficulty levels
       word_dict = {
           "Fruits": {
               "Easy": ["apple", "banana", "orange", "lemon", "pear"],
               "Medium": ["grape", "kiwi", "pear", "plum", "peach"],
               "Hard": ["watermelon", "pineapple", "mango", "dragonfruit", "papaya"]
          },
"Animals": {
               "Easy": ["lion", "tiger", "bear", "dog", "cat", "fish"],
               "Medium": ["elephant", "giraffe", "zebra", "owl", "antelope"],
               "Hard": ["rhinoceros", "hippopotamus", "crocodile", "anaconda", "gecko"]
           },
"Countries": {
               "Easy": ["finland", "denmark", "sweden", "usa", "canada"],
              "Medium": ["nigeria", "turkey", "egypt", "spain", "france"],
               "Hard": ["estonia", "ethiopia", "vietnam", "philippines", "tanzania", "afghanistan"]
           "Car Brands": {
               "Easy": ["ford", "opel", "nissan", "audi", "bmw"],
               "Medium": ["volvo", "ferrari", "mitsubishi", "mercedes", "honda", "tesla"],
               "Hard": ["cadillac", "peugeot", "porsche", "volkswagen", "maserati"]
       # Create another directory with hangman stages ofr later use
       hangman_stages = [ " ",
           +---+
              ===
           +---+
           0.00
           """,
           0.00
           +---+
           0
          /| |
              ===
           0.00
           0.00
           +---+
           0 |
          /|\ |
             ===
           +---+
           0 |
          /|\ |
             ===
           """,
           0.00
           0 |
          /|\ |
          / \ |
           0.00
       cat = ""
       difficulty = ""
       games_attempted = 0
       games_won = 0
        def choose_cat():
           global cat
           print("")
           cat = input("Enter category: ")
           if cat in word_dict:
               return
           else:
               print("Please spell the category correctly and dont for get to use a capital letter! " )
              choose_cat()
        #Prompt the user to select a difficulty level
        def choose_difficulty():
           global difficulty
           difficulty = input("Enter your chosen difficulty: ")
           print("")
           if difficulty in word_dict[cat]:
              return
              print("pls spell correkt")
              choose_difficulty()
        def fresh_game():
           restart = input("Do you want to play again? y/n: ")
           if restart == "y":
              print("Oh by the way, you've won a total of", games_won, "games out of a total of", games_attempted)
              start_game()
           elif restart == "n":
              print("Great, I hope you had a fun time! Goodluck!.... nerd")
              print("Oh by the way, you've won a total of", games_won, "games out of a total of", games_attempted)
               print("plz check your spelling! Only valid choices are y or n ")
              fresh_game()
       def start_game():
           global cat
           global difficulty
           global games_attempted
           global games_won
           print("Choose a category:\n")
           for category in word_dict:
              print(category)
           choose_cat()
           print("")
           for difficulty in word_dict[cat]:
              print(difficulty)
           choose_difficulty()
           words = word_dict[cat][difficulty]
           word = random.choice(words)
           max_tries = 7 # set number of tries based on word length
           # Initialize game variables
           word_letters = set(word)
           used_letters = set()
           tries = 0
           display_tries = 7
           while len(word_letters) > 0 and tries < max_tries : # In the loop word_letters is decremented, tries is incremented. Basically win and loss conditions for the game
              # Display current status
              print("\n")
              # Fancy ternary operator that prints a letter if it exists in used_letters, otherwise prints "_"
              print(" ".join([letter if letter in used_letters else "_" for letter in word]))
              print("You have ", display_tries, "lives left! Goodluck ;)")
              # https://www.w3schools.com/python/ref_string_join.asp
              # Tried to find a way to create a string of underscores that equal the number of letters
              # prompt user to guess a letter
               guess = input("Guess a letter: ").lower()
              # force a lowercase letter
              # Check if the letter has been used before
              if guess in used_letters:
                  print("You have already used that letter!")
               else:
                  used_letters.add(guess)
                  # Check if the letter is in the word
                  if guess in word_letters:
                      word_letters.remove(guess)
                  else:
                     tries += 1
                      display_tries -= 1
                  # Print the hangman stage
                  print(hangman_stages[tries])
           if len(word_letters) == 0:
              if tries == 0:
                  print("WELL PLAYED YA CHEEKY BUGGER. YOU INSTANTLY GUESSED THE WORD...... Or were you just lucky? ;)))) \nThe word was indeed", word, "!!!!!!!!!!")
               else :
                  print("\nCongratulations! You guessed the word", word, "with only", tries, "wrong guesses! ")
               games_attempted +=1
               games_won +=1
              print("\nYou lost! The word was:", word, "\n...Next time try not to be a poopyhead! ")
              games_attempted += 1
           fresh_game()
       start_game()
       Choose a category:
       Fruits
       Animals
       Countries
       Car Brands
       Enter category: Animals
       Easy
       Medium
       Enter your chosen difficulty: Hard
       -----You have 7 lives left! Goodluck ;)
       Guess a letter: n
       _ _ _ n _ _ _ _ _
You have 7 lives left! Goodluck ;)
       Guess a letter: o
       _ _ _ n o _ _ _ o _
       You have 7 lives left! Goodluck ;)
       Guess a letter: a
           +---+
              ===
       _ _ _ n o _ _ _ o _
       You have 6 lives left! Goodluck;)
       Guess a letter: a
       You have already used that letter!
       You have 6 lives left! Goodluck ;)
       Guess a letter: r
           +---+
       r _ _ n o _ _ r o _
       You have 6 lives left! Goodluck ;)
       Guess a letter: h
           +---+
              ===
       r h _ n o _ _ r o _
       You have 6 lives left! Goodluck ;)
       Guess a letter: e
       r h _ n o _ e r o _
       You have 6 lives left! Goodluck ;)
       Guess a letter: t
           +---+
           0 |
       r h _ n o _ e r o _
       You have 5 lives left! Goodluck ;)
       Guess a letter: s
           +---+
           0 |
              ===
       rh_no_eros
       You have 5 lives left! Goodluck ;)
       Guess a letter: g
       rh_no_eros
       You have 4 lives left! Goodluck ;)
       Guess a letter: b
           +---+
           0 |
          /| |
              ===
       rh_no_eros
       You have 3 lives left! Goodluck ;)
       Guess a letter: i
           +---+
           0 |
          /| |
              ===
       rhino_eros
       You have 3 lives left! Goodluck ;)
       Guess a letter: c
           +---+
           0 |
          /| |
              ===
```

Hangman Project

Congratulations! You guessed the word rhinoceros with only 4 wrong guesses!

Do you want to play again? y/n: Yes

Do you want to play again? y/n: y

Choose a category:

Fruits

plz check your spelling! Only valid choices are y or n

Oh by the way, you've won a total of 1 games out of a total of 1

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Car Brands