

## Project-4

# “Hangman Game: Python Implementation of a Classic Word-Guessing Experience”

```
import random
```

```
# ASCII art for the hangman
```

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HANGMAN_PICS = [
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# Word categories

WORD_CATEGORIES = {

    "Animals": ["elephant", "giraffe", "kangaroo", "tiger", "zebra"],

    "Countries": ["brazil", "canada", "japan", "india", "germany"],

    "Movies": ["katera", "Raate", "Kranthi", "Rocky", "Ram"]

}

# Difficulty levels

DIFFICULTY_LEVELS = {

    "Easy": 8,

    "Medium": 6,

    "Hard": 4

}

def get_word(category):

    return random.choice(WORD_CATEGORIES[category]).lower()

def display_hangman(tries):

    return HANGMAN_PICS[tries]

def hangman():

```

```
print("Welcome to Hangman!")
```

```
# Choose a category
```

```
print("\nChoose a category:")
```

```
for i, category in enumerate(WORD_CATEGORIES.keys(), 1):
```

```
    print(f"{i}. {category}")
```

```
category_choice = int(input("Enter the number of your choice: "))
```

```
category = list(WORD_CATEGORIES.keys())[category_choice - 1]
```

```
# Choose a difficulty level
```

```
print("\nChoose a difficulty level:")
```

```
for i, level in enumerate(DIFFICULTY_LEVELS.keys(), 1):
```

```
    print(f"{i}. {level}")
```

```
difficulty_choice = int(input("Enter the number of your choice: "))
```

```
difficulty = list(DIFFICULTY_LEVELS.keys())[difficulty_choice - 1]
```

```
max_tries = DIFFICULTY_LEVELS[difficulty]
```

```
# Get a random word
```

```
word = get_word(category)
```

```
word_completion = "_" * len(word)
```

```
guessed = False
```

```
guessed_letters = []
```

```
guessed_words = []
```

```
tries = 0
```

```
print("\nLet's start the game!")
```

```
print(display_hangman(tries))
```

```
print(word_completion)
```

```
while not guessed and tries < max_tries:
```

```
    guess = input("\nGuess a letter or the whole word: ").lower()
```

```
if len(guess) == 1 and guess.isalpha():

    if guess in guessed_letters:

        print("You already guessed that letter.")

    elif guess not in word:

        print(f"{guess} is not in the word.")

        tries += 1

        guessed_letters.append(guess)

    else:

        print(f"Good job! {guess} is in the word.")

        guessed_letters.append(guess)

        word_completion = "".join(

            [guess if word[i] == guess else word_completion[i] for i in range(len(word))]

        )

        if "_" not in word_completion:

            guessed = True

elif len(guess) == len(word) and guess.isalpha():

    if guess in guessed_words:

        print("You already guessed that word.")

    elif guess != word:

        print(f"{guess} is not the word.")

        tries += 1

        guessed_words.append(guess)

    else:

        guessed = True

        word_completion = word

else:

    print("Invalid guess. Please enter a single letter or the full word.")

print(display_hangman(tries))
```

```
print(word_completion)
```

if guessed:

```
print("\nCongratulations! You guessed the word!")
```

else:

```
print(f"\nYou lost! The word was '{word}'.")
```

hangman()

Out Put

:\Users\rr175\OneDrive\Desktop\pyscript\pyscript\r.py'

Welcome to Hangman!

Choose a category:

1. Animals
2. Countries
3. Movies

Enter the number of your choice: 3

Choose a difficulty level:

1. Easy
2. Medium
3. Hard

Enter the number of your choice: 2

Let's start the game!

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Guess a letter or the whole word: k

Good job! k is in the word.

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k\_\_\_\_\_

Guess a letter or the whole word: p

p is not in the word.

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k\_\_\_\_\_

Guess a letter or the whole word: r

Good job! r is in the word.

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kr\_\_\_\_\_

Guess a letter or the whole word: u

u is not in the word.

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kr\_\_\_\_\_

Guess a letter or the whole word: a

Good job! a is in the word.

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kra\_\_\_\_

Guess a letter or the whole word: n

Good job! n is in the word.

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kran\_\_\_\_

Guess a letter or the whole word: t

Good job! t is in the word.

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krant\_\_

Guess a letter or the whole word: h

Good job! h is in the word.

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kranth\_

Guess a letter or the whole word: i

Good job! i is in the word.

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kranthi

Congratulations! You guessed the word!

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