VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI

PYTHON MINI PROJECT ON

"HANGMAN GAME"

Submitted in partial fulfilment for the requirements for the fifth semester

BACHELOR OF ENGINEERING IN
INFORMATION SCIENCE AND ENGINEERING

For the academic year 2022-2023
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CERTIFICATE

It is certified that the PYTHON Mini Project work entitled “HANGMAN GAME" is carried out by Prajwal M (1MV20IS036) ,Rajath Yadav (1MV20IS042),P Sanath (1MV20IS034), H D Ruthik (1MV20IS019) ,Sameera K M (1MV20IS048) bonafide students of Sir M Visvesvaraya Institute of Technology in partial fulfilment for the 5th semester for the award of the Degree of Bachelor of Engineering in Information Science and Engineering of the Visvesvaraya Technological University, Belagavi during the academic year 2022-2023. It is certified that all corrections and suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the course of Bachelor of Engineering.

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DECLARATION

We hereby declare that the entire project work embodied in this dissertation has been carried out by us and no part has been submitted for any degree or diploma of any institution previously. We hereby declare that the entire project work embodied in this dissertation has been carried out by us and no part has been submitted for any degree or diploma of any institution previously.

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ABSTRACT

Python is a high-level, interpreted, and general-purpose dynamic programming language that focuses on code readability. It generally has small programs when compared to Java and C. It was founded in 1991 by developer Guido Van Rossum. Python ranks among the most popular and fastest growing languages in the world. Python is a powerful, flexible, and easy-to-use language. In addition, the python community is very active. It is used in many organizations as it supports multiple programming paradigms. It also performs automatic memory management.

Advantages of python

- Presence of third-party modules
- Extensive support libraries (NumPy for numerical calculations, Pandas for data analytics, etc.)
- Open source and large active community base
- Versatile, Easy to read, learn and write
- User-friendly data structures
- High-level language
- Dynamically typed language (No need to mention data type based on the value assigned, it takes data type) Object-Oriented and Procedural Programming language
- Portable and Interactive
- Ideal for prototypes – provide more functionality with less coding
- Highly Efficient (Python's clean object-oriented design provides enhanced process control, and the language is equipped with excellent text processing and integration capabilities, as well as its own unit testing framework, which makes it more efficient.)
- Internet of Things (IoT) Opportunities
- Interpreted Language

ANALYSIS

HANGMAN GAME

Hangman is a popular word guessing game where the player attempts to build a missing word by guessing one letter at a time. After a certain number of incorrect guesses, the game ends and the player lose. The game also ends if the player correctly identifies all the letters of the missing word.

HOW TO PLAY

- The goal of this project was to write a graphically based game of hangman using Matlab.
- The computer program opens a figure window, sets the axes properly and then draws the "hangman" gallows.
- The computer loads a dictionary of words that have been previously generated and saved as a text file.
- The computer then selects any of those words randomly and puts the correct number of dashes in the figure window.
- The player can then start guessing letters. If the letter appears in the word, then the computer puts the letter in its proper location. If not, then the computer adds one more body part to the hangman. I used 6 body parts (e.g., head-neck, body, arms, legs, feet and hands).
- If the entire body is completed then the player loses. If the player guesses the word before the body is completed then the player wins.
- After guessing a letter, the letter should be removed from the available alphabet so that it is not guessed again.
- The user should be alerted if they try to guess the same letter more than once

SOURCE CODE

```
import time
import random
name = input("What is your name? ")
print ("Hello, " + name, "Time to play hangman!")
time.sleep(1)
print ("Start guessing...\n")
time.sleep(0.5)
## A List Of Secret Words
words = ['python','programming','treasure','creative','medium','horror']
word = random.choice(words)
guesses = ' '
turns = 5
while turns > 0:
    failed = 0
    for char in word:
        if char in guesses:
            print (char,end="")
        else:
            print ("_",end=""),
            failed += 1
    if failed == 0:
        print ("\nYou won")
        break
    guess = input("\nguess a character:")
    guesses += guess
    if guess not in word:
        turns -= 1
        print("\nWrong")
        print("\nYou have", + turns, 'more guesses')
        if turns == 0:
            print ("\nYou Lose")
```

IMPLEMENTATION

Shell

```
What is your name? ANU
Hello, ANU Time to play hangman!
Start guessing...


__________
guess a character:A
Wrong

You have 4 more guesses
__________
guess a character:Y
Wrong

You have 3 more guesses
__________
guess a character:O
Wrong

You have 2 more guesses
__________
guess a character:P
```

Shell

```
guess a character:O
Wrong

You have 2 more guesses
__________
guess a character:P
Wrong

You have 1 more guesses
__________
guess a character:R
Wrong

You have 0 more guesses

You Lose
> E
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
NameError: name 'E' is not defined
>
```

REFERENCES

Geeksforgeeks.com

Wikipedia.com