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TITLE OF REPORT:

HANGMAN GAME

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TITLE

1. INTRODUCTION:

This report is prepared to give an over view of the project:

HANGMAN GAME

The project was developed to provide base concepts in programming and as instances of real applications for learning purposes . The Hangman game , designed to give the interactive approach to learning coding logic and user interaction.

2. PROJECT OVERVIEW :

HANGMAN GAME

This is a word guesser , the classic guessing game where players attempt to guess a hidden word by suggesting letters. The game takes an entertaining and word predicting power for the user make him/her a logical thinker and a problem solver

2.1 FUNCTIONALITIES AND FEATURES:

Random word selection , user input handling ,updating the list, managing chances and decrementing the chances

checking the loss/win providing feedback

22 HOW DO THE GAME WORK:

STEP 1:

A random word is selected from already defined list (secret word)

STEP-2:

The player has limited number of guesses which is number of characters plus two

For example: if the word is mango the number of chances given to user is 7((which is number of characters of word)5+2)

STEP-3:
For each word guessed correctly , those letters are shown up in their places in the word.

STEP-4:
For the wrong guess, the number of chances is reduced by one

2.3 FEATURES ,RULES AND USER INTERACTION:

The application will prompt the user for the word and will also show the first and last letters at the beginning of the game

it informs the user of the number of chances he / she has left

it will refresh the word with the new guess after every trail.

Either guesses the word or chances are over , the game ends here

3. IMPLEMENTATION DETAILS:

This code was written by using list loop conditional

Random.choice chooses a word from the list.

Uses a list to keep track of the current state of the guessed word

Updates the game state based on user input , checking for win/loss conditions

Challenges and problems

Management of game status and proper feedback to the player

Edge case handling of repeated guesses and invalid input

4. CODE STRUCTURE:

The hangman game has been prepared with a simple loop to manage the flow of the game . the state of the game changes according to the user input, and the current state of the word is then presented after guessing

File structure:

secret_words : list of some fruits

word : randomly selected word

chances : number of chances depending on the length of the word

user_input : it keeps track of the user's guesses

p : this is a list that is going to track the current state of the word

CODE:

```
import random
secret_words=['APPLE','MANGO','GUAVA','CHERRY','STRSWBERRY','BANANA']
word=random.choice((secret_words))
chances=(len(word))+2
user_input=""
# the p is a list created to maintain the status of the game
p=["i"]*len(word)
p[0]=word[0]
p[-1]=word[-1]
print(" ".join(p))
```

```
while chances>0:
    counter=0
    guesses=input("enter a desired character: ").upper()
    user_input+=guesses

for i,char in enumerate(word):
        if char in user_input:
            p[i]=char
        else:
            p[i]="?"
            counter+=1
            p[0]=word[0]
            p[-1]=word[-1]
    print(" ".join(p))

    if "?"in p:
        if guesses not in word:
            chances-=1
            print(chances,"more chances are left")
        if chances==0:
            print("sorry you lost")
    else:
        print("you won")
        break
```

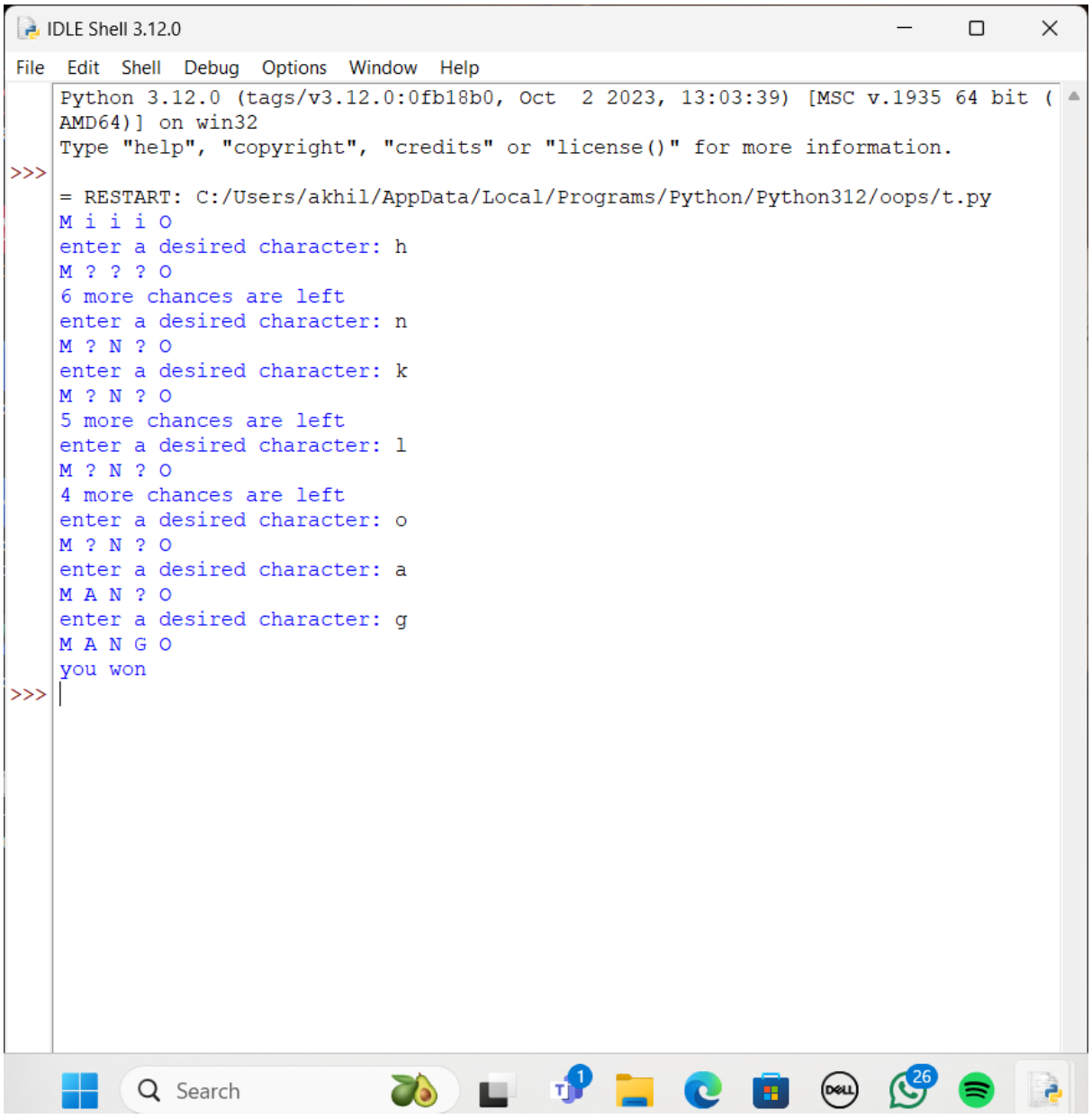
5. TESTING:

TESTING METHODOLOGY:

The project was tested by the Manual Testing Techniques .I used manual testing which was done by running the program a number of times with different combinations to ensue everything works as expected. I tested the user interfaces and overall functionality of program

HANGMAN GAME

INPUTS AND OUTPUTS



6. RESULTS AND DISCUSSION:

The hangman game is highly iterative and engaging . the game logic is robust , considering several scenarios that make the user experience seam less . Fulfils both the objectives of entertainment and predicting capabilities.

7. CONCLUSION:

The hangman game demonstrates some of the fundamental ideas or concepts of programming and how they are put into practice.

The projects meet their objectives by implementing relevant secure password generation and a playable game experience. In the future user interface and feature enhancements for both projects could be considered

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