FINAL ASSESSMENT
ON

PYTHON PROGRAMMING
FOR
DATA SCIENCE

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import random
# Create a list of words
words = ["apple", "banana", "cherry", "orange", "lemon"]
# choose a random word from the list
word = random.choice(words)
# create a blank string to represent the current state
of the word.
display = " " * len(word)
# keep track of the letters that have been guessed
guessed_letters = []
# keep track of the number of guesses remaining
guesses_remaining = 6
# Main game loop
while True:
# Print the current state of the word
        print(display)
# Print the letters that have been guessed
        print("Guessed letters:", guessed_letters)
# Ask the player for their guess
        guess = input("Enter a letter:")
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# check if the guess is vaild
    if len (guess) != 1 or not
guess. isalpha ():
        print ("invalid input. Please enter a single letter")
        continue
# check if the guess has already been made
    if guess in guessed_letters :
        print ("you already guessed that letter,")
        continue
# Add the guess to the list of guessed letters
    guessed_letters.append (guess)
# check if the guess is in the word.
    if guess in word:
# update the display string to reveal the guessed
letter (s)
    display = " ". join ([letter if letter == guess else
display [i] for i , letter in enumerate (word)])
# check if the player has won
    if "_" not in display :
        print ("congratulations , you win! ")
        break
else:
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# Decrement the number of guesses remaining
        guesses_remaining -= 1
        print("Incorrect guess. you have", guesses_remaining, "guesses remaining")
# check if the player has lost
    if guesses_remaining == 0:
        print("sorry, you lose. The word was", word)
        break.
```

```
import os

def main():
    While True:
        # Display the menu
        print("Text Editor Menu:")
        print("1. Open a file")
        print("2. Edit the file")
        print("3. Save the file")
        print("4. close the file")
        print("5. Quit the program")

        # Get the user's choice
        choice = input("Enter your choice (1-5):")
        if choice == '1':
            # open a file.
            filename = input("Enter the filename:")
            try:
                with open(filename, 'r') as f:
                    content = f.read()
                    print(content)
            except FileNotFoundError:
                print("Error: file not found.")
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elif choice == '2':
    # Edit the file
    if 'content' not in locals():
        print("Error: no file open.")
    else:
        new_content = input("Enter the new content: ")
        content = new_content
elif choice == '3':
    # Save the file
    if 'content' not in locals():
        print("Error: no file open".)
    else:
        with open(filename, 'w') as f:
            f.write(content)
            print("file saved".)
elif choice == '4':
    # close the file
    if 'content' not in locals():
        print("Error: no file open.")
    else:
        del content
        print("File closed.")
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elif choice == '5':
    # Quit the program
    if 'content' in locals():
        print ("Warning : file not closed.")
    print ("Goodbye")
    break

else:
    # invaild choice
    print ("Error : Invaild choice.")

if __name__ == '__main__':
    main()
```

```
Guessed letters: []
Enter a letter: a
a _ _ _ _
Guessed letters: ['a']
Enter a letter: e
Incorrect guess. You have 5 guesses remaining.

_ _ _ _ _
Guessed letters: ['a', 'e']
Enter a letter: i
Incorrect guess. You have 4 guesses remaining.

_ _ _ _ _
Guessed letters: ['a', 'e', 'i']
Enter a letter: o
o _ _ _ _
Guessed letters: ['a', 'e', 'i', 'o']
Enter a letter: l
o _ _ _ l
Guessed letters: ['a', 'e', 'i', 'o', 'l']
Enter a letter: n
o _ _ n l
Guessed letters: ['a', 'e', 'i', 'o', 'l', 'n']
Enter a letter: p
Congratulations, you win!
```