aditya

August 16, 2023

1. Read a list of n elements. Pass this list to a function which reverses this list in-place without creating a new list. #Code By UI22CS03

[1]:
```
def reverse_in_place(lst):
    left = 0
    right = len(lst) - 1

    while left < right:
        lst[left], lst[right] = lst[right], lst[left]
        left += 1
        right -= 1

# Example usage
n = int(input("Enter the number of elements: "))
my_list = []

for i in range(n):
    element = int(input("Enter element {}:".format(i + 1)))
    my_list.append(element)

print("Original list:", my_list)
reverse_in_place(my_list)
print("Reversed list:", my_list)
```

##2. Write a program to input line(s) of text from the user until enter is pressed. Count the total number of characters in the text (including white spaces),total number of alphabets, total number of digits, total number of special symbols and total number of words in the given text. (Assume that each word is separated by one space).

[ ]:
```
def analyze_text(text):
    total_characters = len(text)
    total_alphabets = sum(c.isalpha() for c in text)
    total_digits = sum(c.isdigit() for c in text)
    total_special_symbols = total_characters - total_alphabets - total_digits
    total_words = len(text.split())

    return total_characters, total_alphabets, total_digits,␣
 ↪total_special_symbols, total_words
```

```
def main():
    lines = []
    while True:
        line = input("Enter a line of text (press Enter to stop): ")
        if not line:
            break
        lines.append(line)

    input_text = '\n'.join(lines)
    total_characters, total_alphabets, total_digits, total_special_symbols,␣
 ↪total_words = analyze_text(input_text)

    print("\nText Analysis:")
    print("Total characters:", total_characters)
    print("Total alphabets:", total_alphabets)
    print("Total digits:", total_digits)
    print("Total special symbols:", total_special_symbols)
    print("Total words:", total_words)

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

```
Enter a line of text (press Enter to stop): Aditya is my name
Enter a line of text (press Enter to stop): UI22CS03
Enter a line of text (press Enter to stop):

Text Analysis:
Total characters: 26
Total alphabets: 18
Total digits: 4
Total special symbols: 4
Total words: 5
```

3. Write a function that takes a sentence as an input parameter where each word in the sentence is separated by a space. The function should replace each blank with a hyphen and then return the modified sentence.

[ ]:
```
string2 =input("Enter the String here")
def strmodify(string2):
    newstr=""
    for cr in string2:
        if cr.isspace():
            newstr= newstr+"-"
        else:
            newstr=newstr+cr
    return newstr
print(strmodify(string2))
```

```
Enter the String here11 22   4 adi   k
11-22---4-adi---k
```

4. Write a function deleteChar() which takes two parameters one is a string and other is a character. The function should create a new string after deleting all occurrences of the character from the string and return the new string.

[ ]:
```
string3=input("Enter the String")
char = input("Enter the character to delete")

def deletecharacter(string3,char):
    newstring= ""
    for i in string3:
        if char != i:
            newstring= newstring+i
    return newstring

print(string3)
print(deletecharacter(string3,char))
```

```
Enter the Stringabcdefaba
Enter the character to deletea
abcdefaba
bcdefb
```

5. Write a user defined function to convert a string with more than one word into title case string where string is passed as parameter. (Title case means that the first letter of each word is capitalised).

[ ]:
```
string = input("Enter the String")
def convert(string):
    lst = string.split()
    for i in lst:
        print (i.capitalize(), end = " ")
convert(string)
```

```
Enter the Stringi am from india. my country is best in the world
I Am From India. My Country Is Best In The World
```

5. Write a program to input your friends' names and their Phone Numbers and store them in the dictionary as the key-value pair. Perform the following operations on the dictionary:

a) Display the name and phone number of all your friends
b) Add a new key-value pair in this dictionary and display the modified dictionary
c) Delete a particular friend from the dictionary
d) Modify the phone number of an existing friend
e) Check if a friend is present in the dictionary or not
f) Display the dictionary in sorted order of names.

[ ]:
```python
def display_friends(dictionary):
    print("Friend List:")
    for name, phone in dictionary.items():
        print(f"Name: {name}, Phone: {phone}")

def add_friend(dictionary, name, phone):
    dictionary[name] = phone
    print("New friend added successfully.")

def delete_friend(dictionary, name):
    if name in dictionary:
        del dictionary[name]
        print("Friend deleted successfully.")
    else:
        print("Friend not found.")

def modify_phone(dictionary, name, new_phone):
    if name in dictionary:
        dictionary[name] = new_phone
        print("Phone number updated successfully.")
    else:
        print("Friend not found.")

def check_friend(dictionary, name):
    if name in dictionary:
        print(f"{name} is present in the friend list.")
    else:
        print(f"{name} is not present in the friend list.")

def display_sorted(dictionary):
    sorted_dict = dict(sorted(dictionary.items()))
    print("Friend List (Sorted by Name):")
    for name, phone in sorted_dict.items():
        print(f"Name: {name}, Phone: {phone}")

def main():
    friends = {}
    while True:
        print("\nMenu:")
        print("1. Display friends' names and phone numbers")
        print("2. Add a new friend")
        print("3. Delete a friend")
        print("4. Modify a friend's phone number")
        print("5. Check if a friend is present")
        print("6. Display friends' names and phone numbers (sorted by name)")
        print("7. Exit")
```

```
        choice = int(input("Enter your choice: "))

        if choice == 1:
            display_friends(friends)
        elif choice == 2:
            name = input("Enter friend's name: ")
            phone = input("Enter friend's phone number: ")
            add_friend(friends, name, phone)
        elif choice == 3:
            name = input("Enter friend's name to delete: ")
            delete_friend(friends, name)
        elif choice == 4:
            name = input("Enter friend's name: ")
            new_phone = input("Enter new phone number: ")
            modify_phone(friends, name, new_phone)
        elif choice == 5:
            name = input("Enter friend's name: ")
            check_friend(friends, name)
        elif choice == 6:
            display_sorted(friends)
        elif choice == 7:
            break
        else:
            print("Invalid choice. Please try again.")

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

```
Menu:
1. Display friends' names and phone numbers
2. Add a new friend
3. Delete a friend
4. Modify a friend's phone number
5. Check if a friend is present
6. Display friends' names and phone numbers (sorted by name)
7. Exit
Enter your choice: 1
Friend List:

Menu:
1. Display friends' names and phone numbers
2. Add a new friend
3. Delete a friend
4. Modify a friend's phone number
5. Check if a friend is present
6. Display friends' names and phone numbers (sorted by name)
```

```
7. Exit
Enter your choice: 2
Enter friend's name: Aditya
Enter friend's phone number: 99999999999
New friend added successfully.

Menu:
1. Display friends' names and phone numbers
2. Add a new friend
3. Delete a friend
4. Modify a friend's phone number
5. Check if a friend is present
6. Display friends' names and phone numbers (sorted by name)
7. Exit
Enter your choice: 1
Friend List:
Name: Aditya, Phone: 99999999999

Menu:
1. Display friends' names and phone numbers
2. Add a new friend
3. Delete a friend
4. Modify a friend's phone number
5. Check if a friend is present
6. Display friends' names and phone numbers (sorted by name)
7. Exit
Enter your choice: 2
Enter friend's name: Anurag Kumar
Enter friend's phone number: 8888888888
New friend added successfully.

Menu:
1. Display friends' names and phone numbers
2. Add a new friend
3. Delete a friend
4. Modify a friend's phone number
5. Check if a friend is present
6. Display friends' names and phone numbers (sorted by name)
7. Exit
Enter your choice: 1
Friend List:
Name: Aditya, Phone: 99999999999
Name: Anurag Kumar, Phone: 8888888888

Menu:
1. Display friends' names and phone numbers
2. Add a new friend
3. Delete a friend
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```
4. Modify a friend's phone number
5. Check if a friend is present
6. Display friends' names and phone numbers (sorted by name)
7. Exit
Enter your choice: 3
Enter friend's name to delete: Anurag Kumar
Friend deleted successfully.

Menu:
1. Display friends' names and phone numbers
2. Add a new friend
3. Delete a friend
4. Modify a friend's phone number
5. Check if a friend is present
6. Display friends' names and phone numbers (sorted by name)
7. Exit
Enter your choice: 1
Friend List:
Name: Aditya, Phone: 99999999999

Menu:
1. Display friends' names and phone numbers
2. Add a new friend
3. Delete a friend
4. Modify a friend's phone number
5. Check if a friend is present
6. Display friends' names and phone numbers (sorted by name)
7. Exit
Enter your choice: 24
Invalid choice. Please try again.

Menu:
1. Display friends' names and phone numbers
2. Add a new friend
3. Delete a friend
4. Modify a friend's phone number
5. Check if a friend is present
6. Display friends' names and phone numbers (sorted by name)
7. Exit
Enter your choice: 4
Enter friend's name: Aditya
Enter new phone number: 1111111111
Phone number updated successfully.

Menu:
1. Display friends' names and phone numbers
2. Add a new friend
3. Delete a friend
```

```
4. Modify a friend's phone number
5. Check if a friend is present
6. Display friends' names and phone numbers (sorted by name)
7. Exit
Enter your choice: 1
Friend List:
Name: Aditya, Phone: 1111111111

Menu:
1. Display friends' names and phone numbers
2. Add a new friend
3. Delete a friend
4. Modify a friend's phone number
5. Check if a friend is present
6. Display friends' names and phone numbers (sorted by name)
7. Exit
Enter your choice: 5
Enter friend's name: Aditya
Aditya is present in the friend list.

Menu:
1. Display friends' names and phone numbers
2. Add a new friend
3. Delete a friend
4. Modify a friend's phone number
5. Check if a friend is present
6. Display friends' names and phone numbers (sorted by name)
7. Exit
Enter your choice: 6
Friend List (Sorted by Name):
Name: Aditya, Phone: 1111111111

Menu:
1. Display friends' names and phone numbers
2. Add a new friend
3. Delete a friend
4. Modify a friend's phone number
5. Check if a friend is present
6. Display friends' names and phone numbers (sorted by name)
7. Exit
Enter your choice: 7
```

[ ]: