Name: Pallavi Salunkhe

Domain: Python

Second Week Task

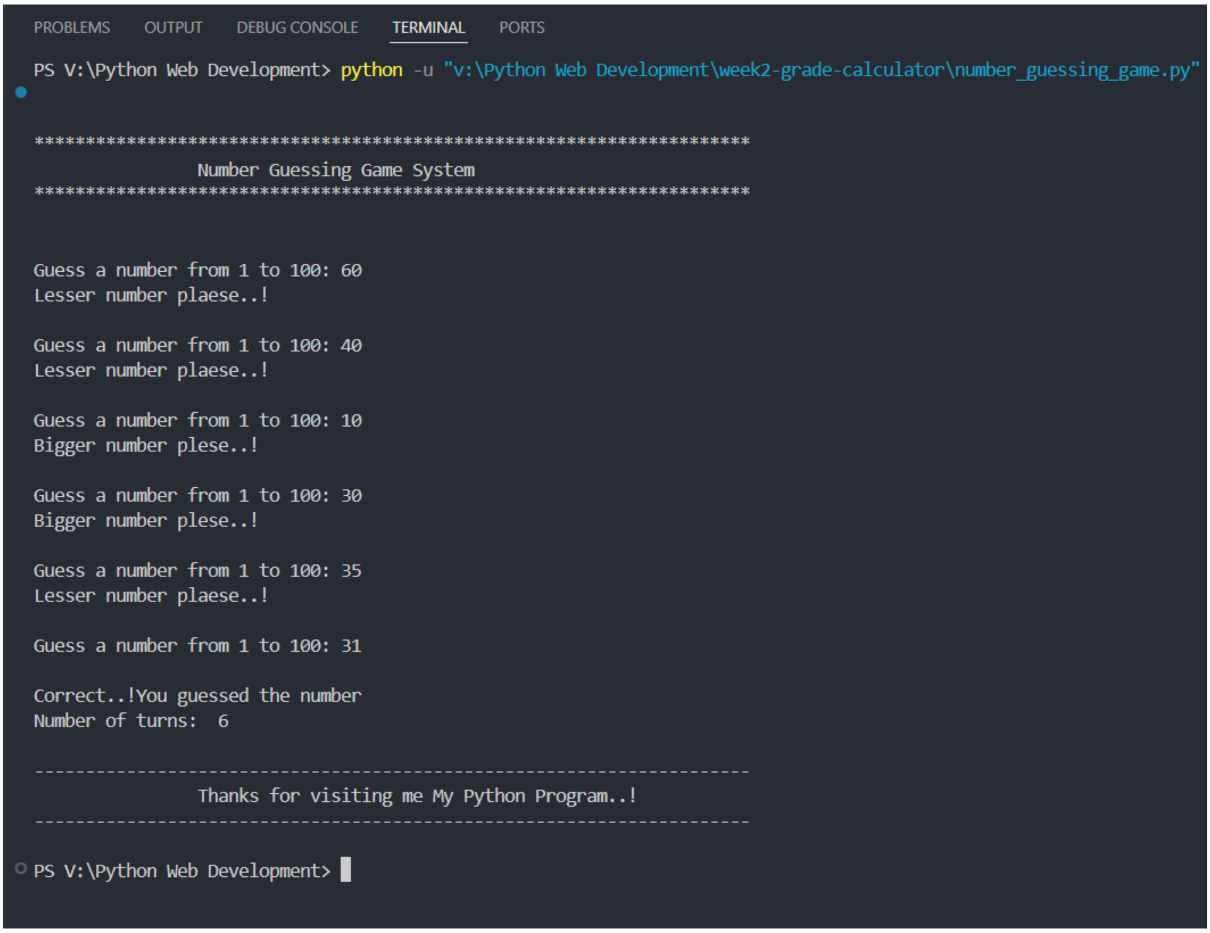
Hands-On Practice:

1. Create a number guessing game with hints.

   CODE:

```
# Q 1.Create a number guessing game with hints.

print("\n")
print("*"*70)
print("\t\tNumber Guessing Game System")
print("*"*70)
print("\n")
import random
number=random.randint(1,100)
turns=0
while True:
    guess=int(input("Guess a number from 1 to 100: "))
    if(guess == number):
        print("\nCorrect..!You guessed the number")
        break
    elif(guess <number):
        print("Bigger number plese..!\n")
        turns +=1
    elif(guess > number):
        print("Lesser number plaese..!\n")
        turns +=1

print("Number of turns: ", turns+1)
print()
print("-"*70)
print("\t\tThanks for visiting me My Python Program..!")
print("-"*70)
print()
```

OUTPUT:



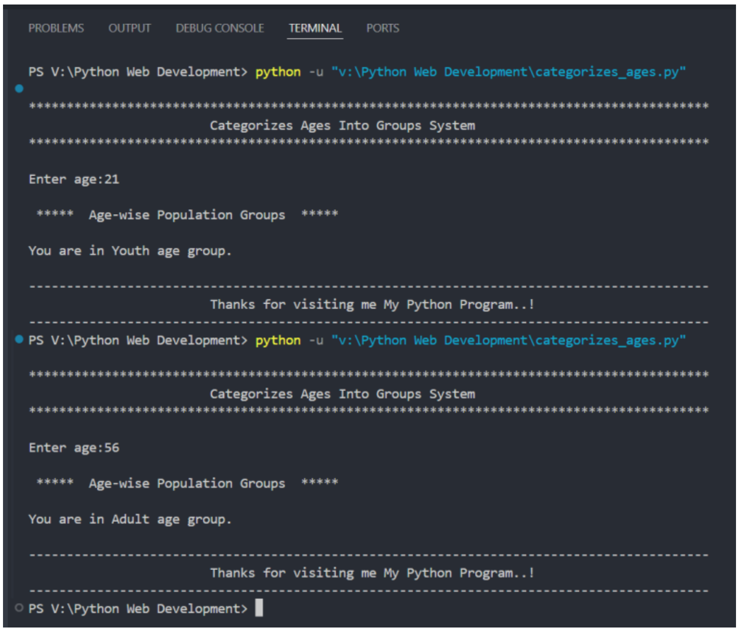
```
PS V:\Python Web Development> python -u "v:\Python Web Development\week2-grade-calculator\number_guessing_game.py"

**********************************************************************
                Number Guessing Game System
**********************************************************************



Guess a number from 1 to 100: 60
Lesser number plaese..!

Guess a number from 1 to 100: 40
Lesser number plaese..!

Guess a number from 1 to 100: 10
Bigger number plese..!

Guess a number from 1 to 100: 30
Bigger number plese..!

Guess a number from 1 to 100: 35
Lesser number plaese..!

Guess a number from 1 to 100: 31

Correct..!You guessed the number
Number of turns:  6

----------------------------------------------------------------------
                Thanks for visiting me My Python Program..!
----------------------------------------------------------------------

PS V:\Python Web Development> 
```

2. Build a program that categorizes ages into groups.

CODE:

```
# Q. 2 Build a program that categorizes ages into groups.
# here i use if/elif/else condition statements.
print()
print("*"*90)
print("\t\t\tCategorizes Ages Into Groups System")
print("*"*90)
print()
age=int(input("Enter age:"))
print()
print(" ***** \tAge-wise Population Groups  *****\n")
if(age >=0 and age<=14):
print("You are in Child age group.")
elif(age >= 15 and age <= 24):
print("You are in Youth age group.")
elif(age >= 25 and age <= 64):
print("You are in Adult age group.")
elif(age >=65):
print("You are in Senior age group.")
else:
print("Wrong enter age value..! please try again.")
print()
print("-"*90)
print("\t\t\tThanks for visiting me My Python Program..!")
print("-"*90)
```

OUTPUT:



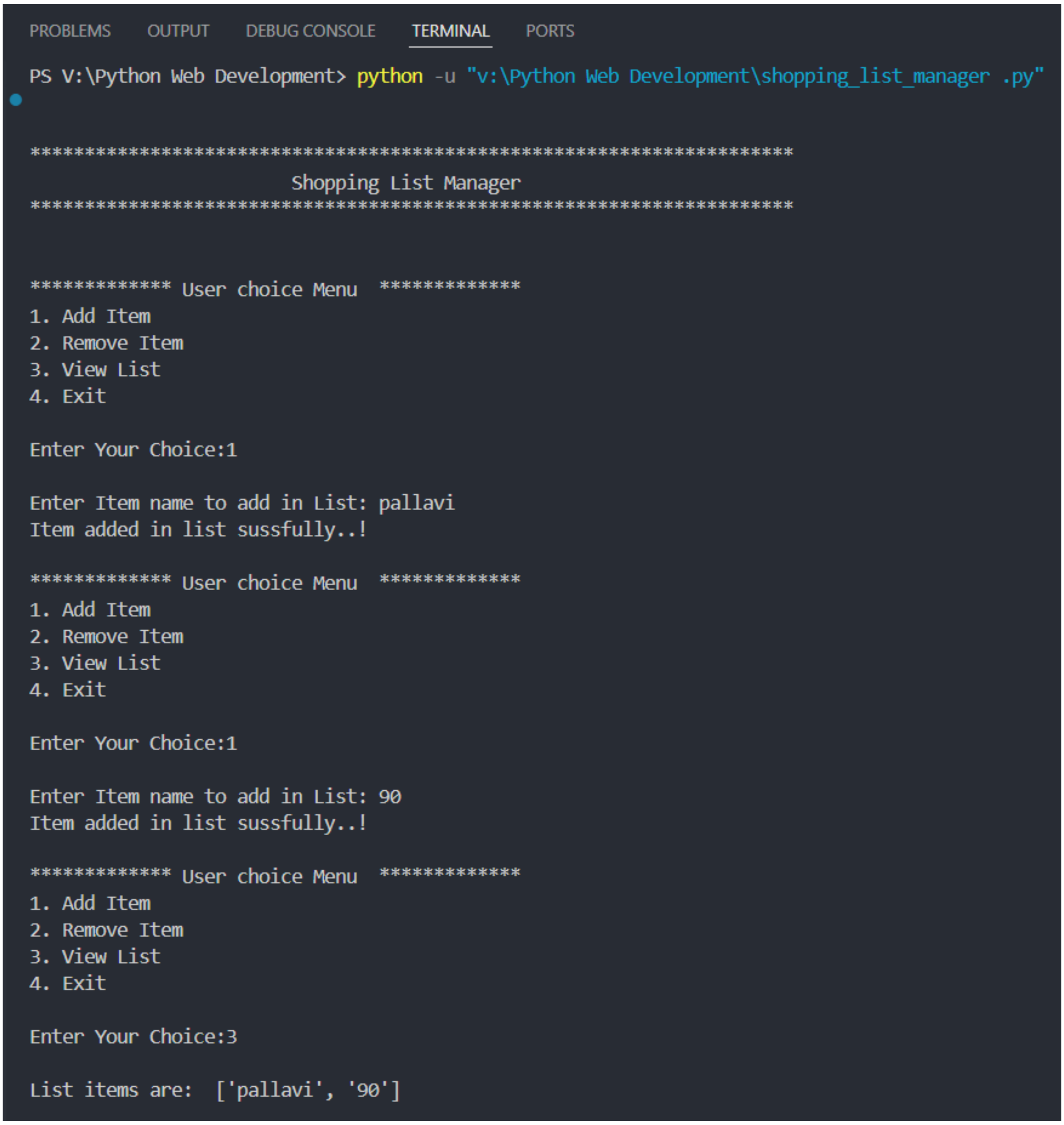
```
PS V:\Python Web Development> python -u "v:\Python Web Development\categorizes_ages.py"

******************************************************************************************
                        Categorizes Ages Into Groups System
******************************************************************************************

Enter age:21

 *****  Age-wise Population Groups  *****

You are in Youth age group.

------------------------------------------------------------------------------------------
                        Thanks for visiting me My Python Program..!
------------------------------------------------------------------------------------------
PS V:\Python Web Development> python -u "v:\Python Web Development\categorizes_ages.py"

******************************************************************************************
                        Categorizes Ages Into Groups System
******************************************************************************************

Enter age:56

 *****  Age-wise Population Groups  *****

You are in Adult age group.

------------------------------------------------------------------------------------------
                        Thanks for visiting me My Python Program..!
------------------------------------------------------------------------------------------
PS V:\Python Web Development> █
```

3. Make a shopping list manager with add/remove functionality.

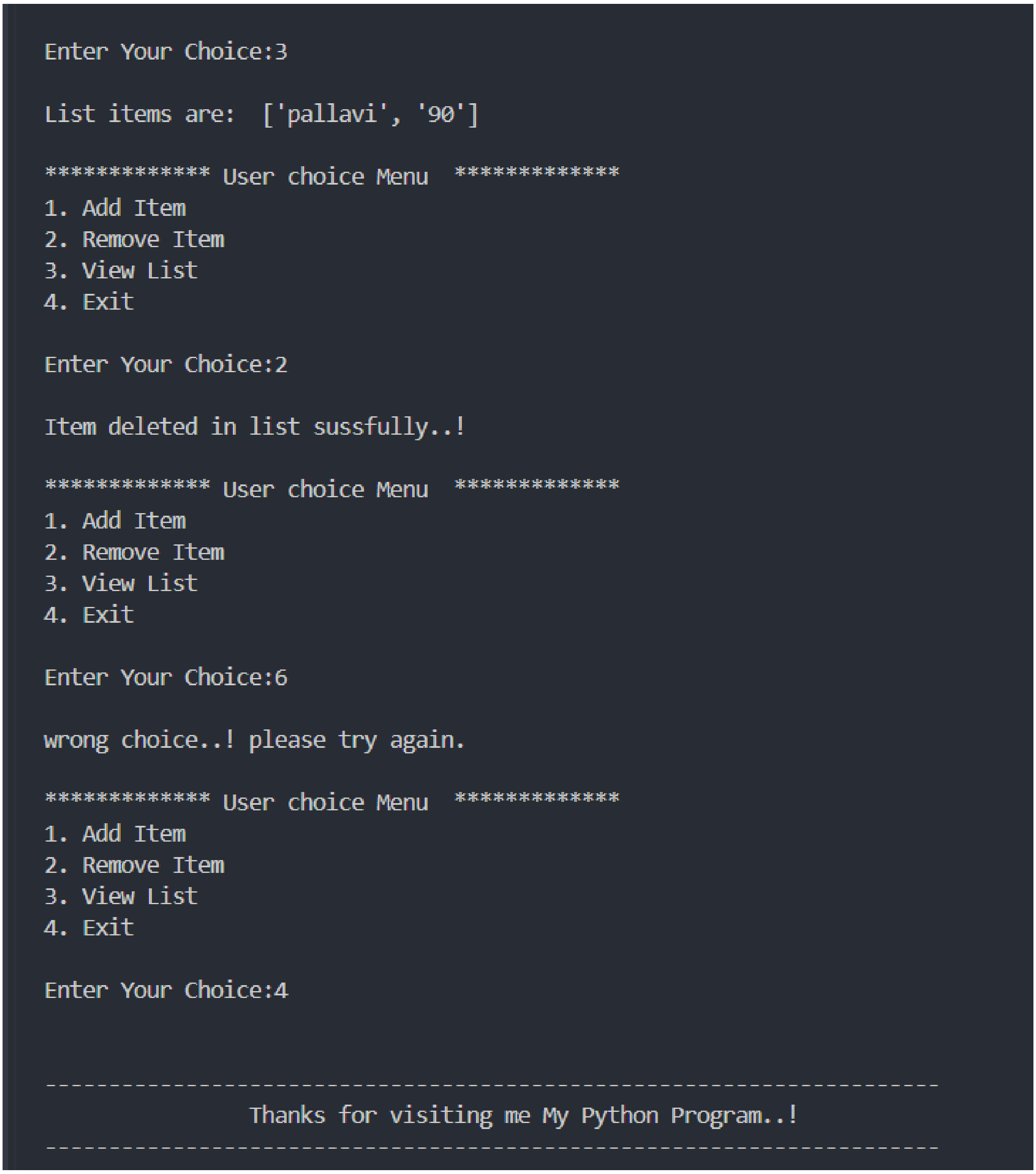
CODE:

```
# Q 3.  Make a shopping list manager with add/remove functionality.
print("\n")
print("*"*70)
print("\t\t\tShopping List Manager")
print("*"*70)
print("\n")

list=[]
while True:
   print("************* User choice Menu  *************")
   print("1. Add Item")
   print("2. Remove Item")
   print("3. View List")
   print("4. Exit")
   print()
   ch=int(input("Enter Your Choice:"))
   print()
   if(ch == 1):
      item=input("Enter Item name to add in List: ")
      list.append(item)
      print("Item added in list sussfully..!\n")
   elif(ch == 2):
      list.pop()
      print("Item deleted in list sussfully..!\n")
   elif(ch == 3):
      print("List items are: ", list ,"\n")
   elif(ch == 4):
      break
   else:
      print("wrong choice..! please try again.\n")

print()
print("-"*70)
print("\t\tThanks for visiting me My Python Program..!")
print("-"*70)
print()
```

OUTPUT:



```
PS V:\Python Web Development> python -u "v:\Python Web Development\shopping_list_manager .py"

**********************************************************************
                        Shopping List Manager
**********************************************************************


************* User choice Menu  *************
1. Add Item
2. Remove Item
3. View List
4. Exit

Enter Your Choice:1

Enter Item name to add in List: pallavi
Item added in list sussfully..!

************* User choice Menu  *************
1. Add Item
2. Remove Item
3. View List
4. Exit

Enter Your Choice:1

Enter Item name to add in List: 90
Item added in list sussfully..!

************* User choice Menu  *************
1. Add Item
2. Remove Item
3. View List
4. Exit

Enter Your Choice:3

List items are:  ['pallavi', '90']
```



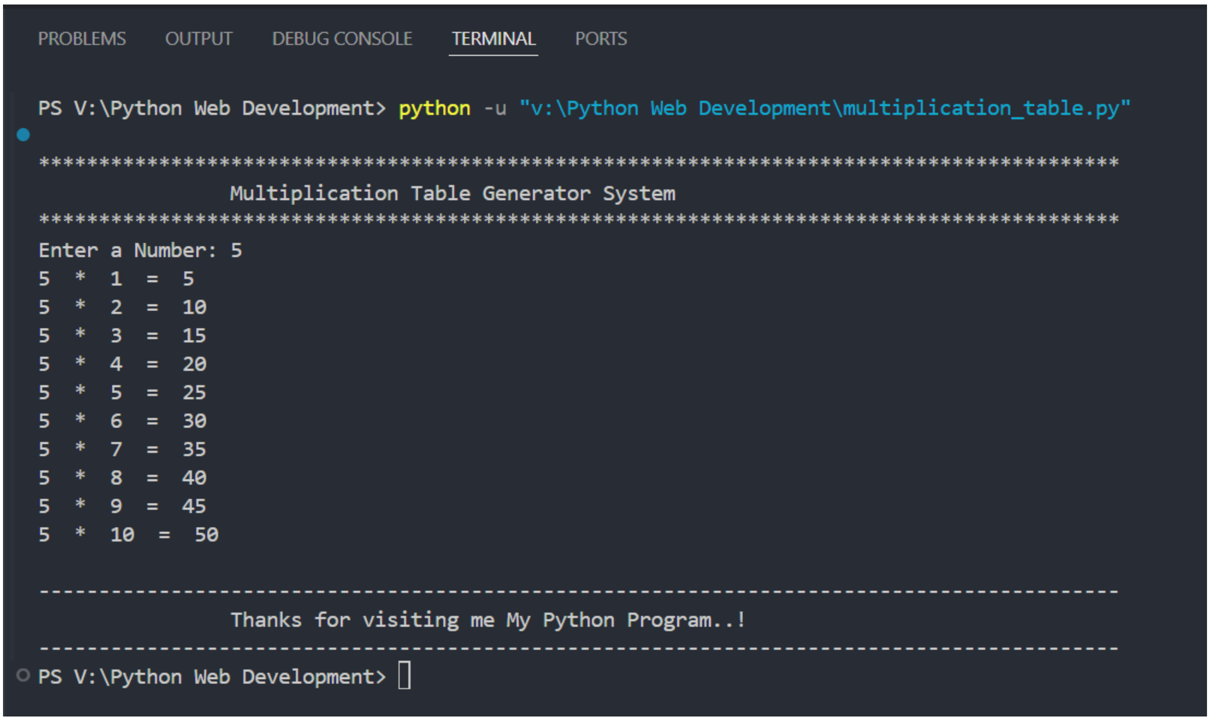
```
Enter Your Choice:3

List items are:  ['pallavi', '90']

************* User choice Menu  *************
1. Add Item
2. Remove Item
3. View List
4. Exit

Enter Your Choice:2

Item deleted in list sussfully..!

************* User choice Menu  *************
1. Add Item
2. Remove Item
3. View List
4. Exit

Enter Your Choice:6

wrong choice..! please try again.

************* User choice Menu  *************
1. Add Item
2. Remove Item
3. View List
4. Exit

Enter Your Choice:4


----------------------------------------------------------------------
                Thanks for visiting me My Python Program..!
----------------------------------------------------------------------
```

4. Create a multiplication table generator

CODE:

```
# Q.4 Create a multiplication table generator
# here i use for loop to print n number multiplication table.
# and also use range function which represent start value from 1 to print 10.
#welcome message
print()
print("*"*90)
print("\t\tMultiplication Table Generator System")
print("*"*90)
number=int(input("Enter a Number: "))
for i in range(1,11):
    print(number, " * ",i, " = ",number*i)
#bye message
print()
print("-"*90)
print("\t\tThanks for visiting me My Python Program..!")
print("-"*90)
```

OUTPUT:



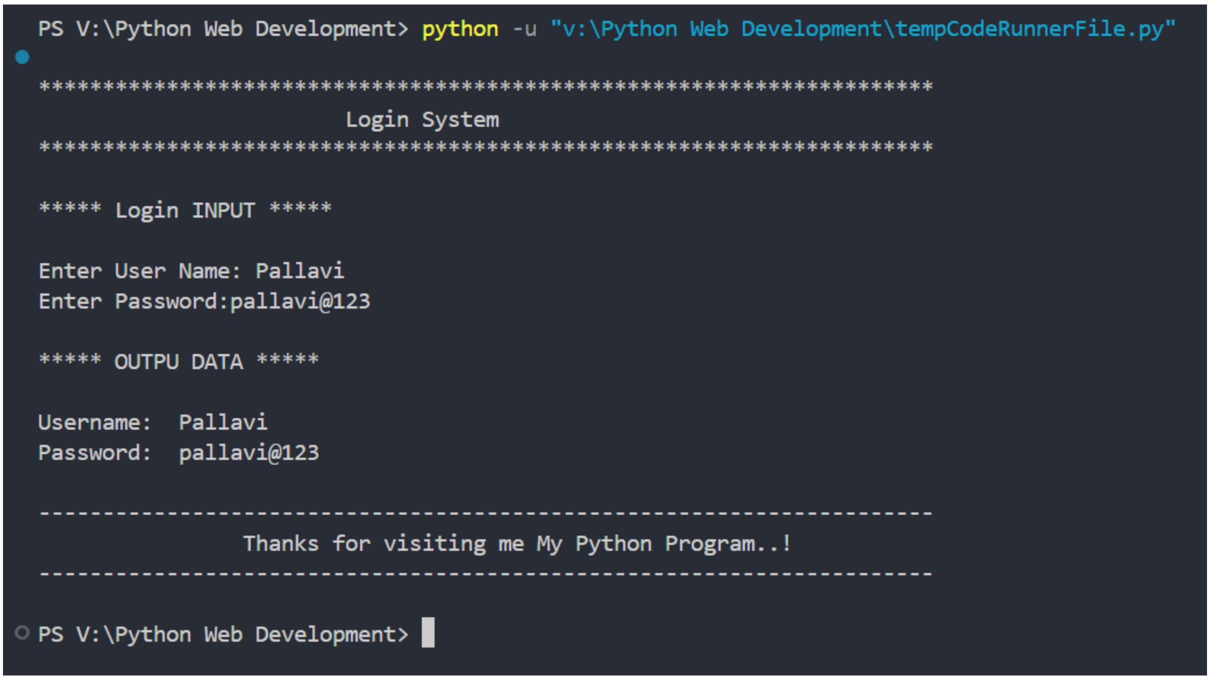
```
PS V:\Python Web Development> python -u "v:\Python Web Development\multiplication_table.py"

******************************************************************************************
                Multiplication Table Generator System
******************************************************************************************
Enter a Number: 5
5  *  1  =  5
5  *  2  =  10
5  *  3  =  15
5  *  4  =  20
5  *  5  =  25
5  *  6  =  30
5  *  7  =  35
5  *  8  =  40
5  *  9  =  45
5  *  10  =  50

------------------------------------------------------------------------------------------
                Thanks for visiting me My Python Program..!
------------------------------------------------------------------------------------------
PS V:\Python Web Development> 
```

5. Build a simple login system with username/password.

CODE:

```
# Q. 5 Build a simple login system with username/password.
print()
print("*"*70)
print("\t\t\tLogin System")
print("*"*70)
print()
print("***** Login INPUT *****\n")
username=input("Enter User Name: ")
password=input("Enter Password:")
print("\n***** OUTPU DATA *****\n")
print("Username: ",username)
print("Password: ",password)
print()
print("-"*70)
print("\t\tThanks for visiting me My Python Program..!")
print("-"*70)
print()
```

OUTPUT:

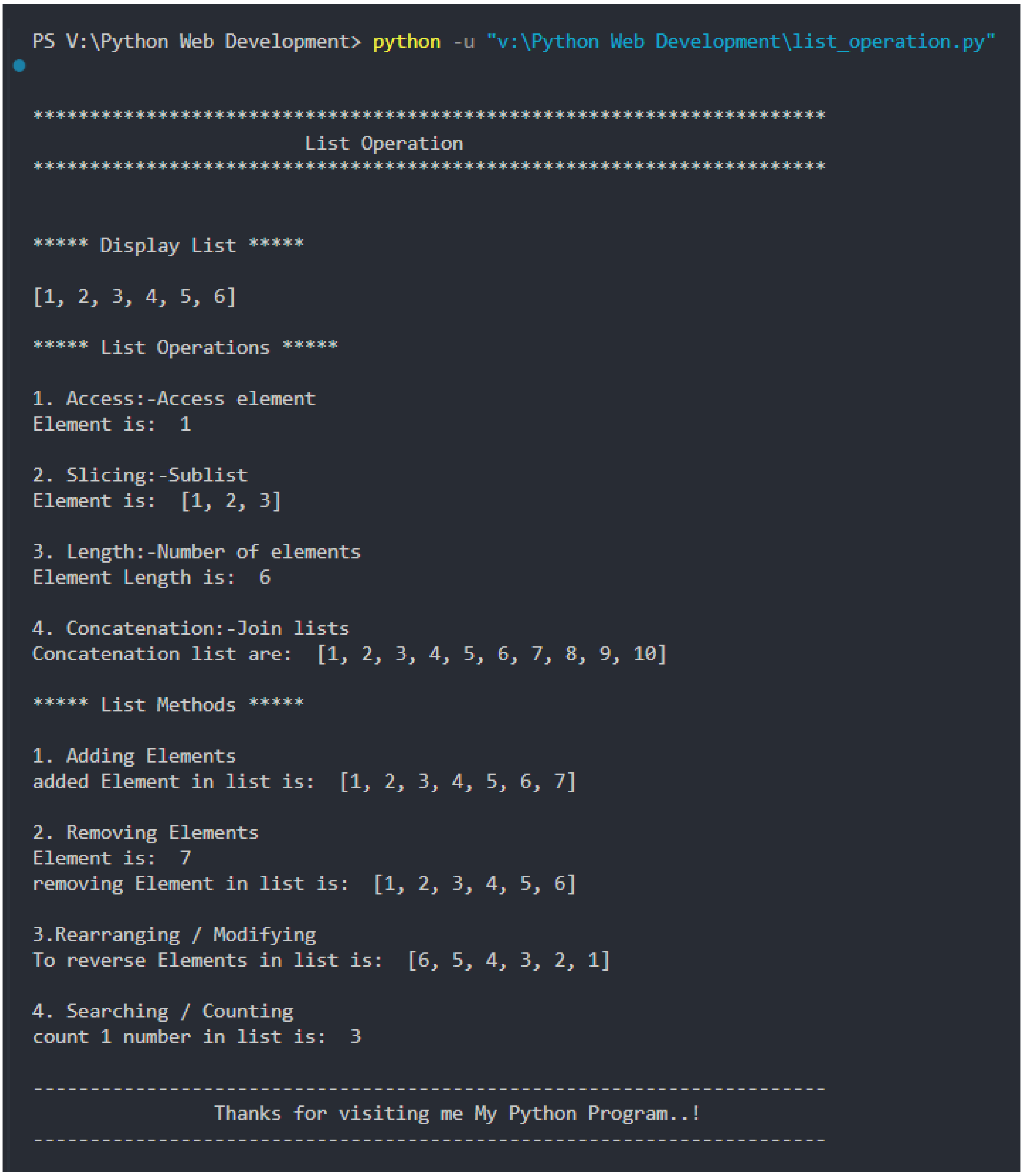


```
PS V:\Python Web Development> python -u "v:\Python Web Development\tempCodeRunnerFile.py"

**********************************************************************
                        Login System
**********************************************************************

***** Login INPUT *****

Enter User Name: Pallavi
Enter Password:pallavi@123

***** OUTPU DATA *****

Username:  Pallavi
Password:  pallavi@123

----------------------------------------------------------------------
                Thanks for visiting me My Python Program..!
----------------------------------------------------------------------

PS V:\Python Web Development>
```

6. Practice different list operations and methods
   CODE:

```
# Q 6.Practice different list operations and methods
# To create and display list in python.
print("\n")
print("*"*70)
print("\t\t\tList Operation")
print("*"*70)
print("\n")
print("***** Display List *****\n")
list=[1,2,3,4,5,6]
print(list)
print("")
# list operations
print("***** List Operations *****\n")
print("1. Access:-Access element")
print("Element is: ",list[0])
print("\n2. Slicing:-Sublist")
print("Element is: ",list[0:3])
print("\n3. Length:-Number of elements")
print("Element Length is: ",len(list))
list1=[1,2,3,4,5,6]
list2=[7,8,9,10]
print("\n4. Concatenation:-Join lists")
print("Concatenation list are: ",list1+list2)
# List Methods (Built-in)
print("\n***** List Methods *****\n")
print("1. Adding Elements")
list.append(7)
print("added Element in list is: ",list)
print("\n2. Removing Elements")
print("Element is: ",list.pop())
print("removing Element in list is: ",list)
print("\n3.Rearranging / Modifying")
list.reverse()
print("To reverse Elements in list is: ",list)
print("\n4. Searching / Counting")
list3=[1,2,3,4,5,6,1,1]
print("count 1 number in list is: ",list3.count(1))
print()
print("-"*70)
print("\t\tThanks for visiting me My Python Program..!")
print("-"*70)
print()
```

OUTPUT:



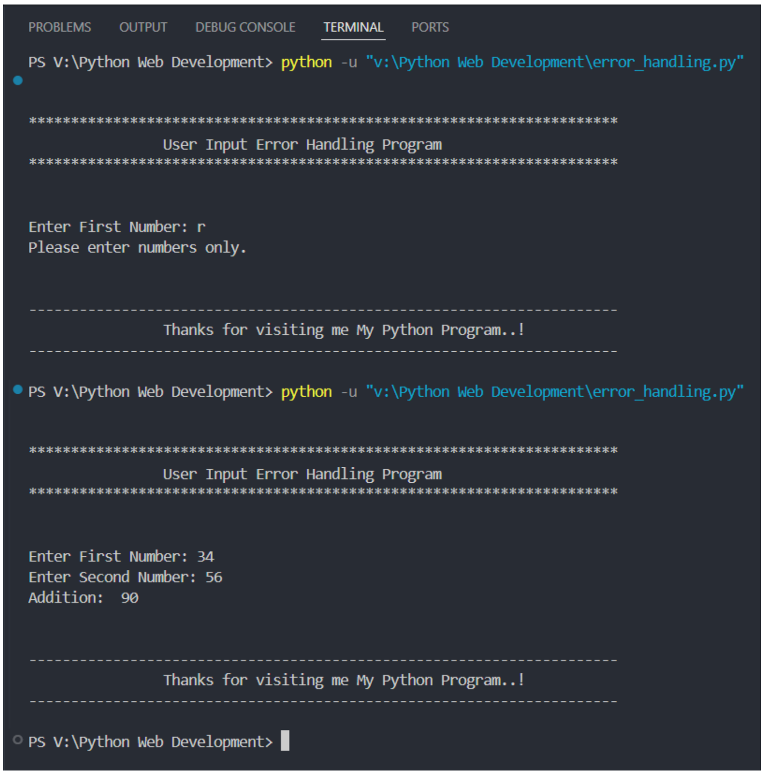
```
PS V:\Python Web Development> python -u "v:\Python Web Development\list_operation.py"

**********************************************************************
                        List Operation
**********************************************************************


***** Display List *****

[1, 2, 3, 4, 5, 6]

***** List Operations *****

1. Access:-Access element
Element is:  1

2. Slicing:-Sublist
Element is:  [1, 2, 3]

3. Length:-Number of elements
Element Length is:  6

4. Concatenation:-Join lists
Concatenation list are:  [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

***** List Methods *****

1. Adding Elements
added Element in list is:  [1, 2, 3, 4, 5, 6, 7]

2. Removing Elements
Element is:  7
removing Element in list is:  [1, 2, 3, 4, 5, 6]

3.Rearranging / Modifying
To reverse Elements in list is:  [6, 5, 4, 3, 2, 1]

4. Searching / Counting
count 1 number in list is:  3

----------------------------------------------------------------------
                Thanks for visiting me My Python Program..!
----------------------------------------------------------------------
```

7. Implement error handling for user inputs

CODE:

```
# Q 7.Implement error handling for user inputs
# to handle errors in when user only enter number ont any other character for calculating addtions of two numbers.
print("\n")
print("*"*70)
print("\t\tUser Input Error Handling Program")
print("*"*70)
print("\n")
try:
number1=int(input("Enter First Number: "))
number2=int(input("Enter Second Number: "))
add=number1+number2
print("Addition: ",add ,"\n")
except ValueError:
print("Please enter numbers only.\n")
print()
print("-"*70)
print("\t\tThanks for visiting me My Python Program..!")
print("-"*70)
print()
```

OUTPUT:



```
PS V:\Python Web Development> python -u "v:\Python Web Development\error_handling.py"


**********************************************************************
                User Input Error Handling Program
**********************************************************************


Enter First Number: r
Please enter numbers only.


----------------------------------------------------------------------
                Thanks for visiting me My Python Program..!
----------------------------------------------------------------------

PS V:\Python Web Development> python -u "v:\Python Web Development\error_handling.py"


**********************************************************************
                User Input Error Handling Program
**********************************************************************


Enter First Number: 34
Enter Second Number: 56
Addition:  90


----------------------------------------------------------------------
                Thanks for visiting me My Python Program..!
----------------------------------------------------------------------

PS V:\Python Web Development>
```