Name : Asmit Sahu Roll : 23052231 python practice Q11-Q20

In [1]:
```python
#Write a program to input 10 numbers in a list and sort them in ascending order wit
nums = []
for i in range(10):
    nums.append(int(input(f"Enter number {i+1}: ")))

n = len(nums)
for i in range(n):
    for j in range(0, n - i - 1):
        if nums[j] > nums[j + 1]:
            nums[j], nums[j + 1] = nums[j + 1], nums[j]

print("Sorted List:", nums)
```

```
Sorted List: [1, 1, 2, 2, 3, 3, 4, 6, 6, 7]
```

In [2]:
```python
#Input a string and count vowels, consonants, digits, and special characters

s = input("Enter a string: ")

vowels = consonants = digits = special = 0

for ch in s:
    if ch.lower() in 'aeiou':
        vowels += 1
    elif ch.isalpha():
        consonants += 1
    elif ch.isdigit():
        digits += 1
    else:
        special += 1

print("Vowels:", vowels)
print("Consonants:", consonants)
print("Digits:", digits)
print("Special Characters:", special)
```

```
Vowels: 0
Consonants: 1
Digits: 0
Special Characters: 0
```

In [7]:
```python
#Take two lists from user and print elements common to both

list1 = input("Enter first list elements: ").split()
list2 = input("Enter second list elements: ").split()

common = set()
for item in list1:
    if (item in list2):
        common.add(item)

print("common:", common)
```

```
common: {'hello'}
```

In [10]:
```python
#Remove all empty strings from the given list

list = ["Asmit", "", "ram", "", "kumar"]

result = []
for item in list:
    if item != "":
        result.append(item)

print("final list", result)
```

```
final list ['Asmit', 'ram', 'kumar']
```

In [11]:
```python
#Input 10 numbers and display the second largest number without using built-in func

nums = []
for i in range(10):
    nums.append(int(input(f"Enter number {i+1}: ")))

largest = second_largest = -10000000

for ele in nums:
    if ele > largest:
        second_largest = largest
        largest = ele
    elif ele > second_largest and ele != largest:
        second_largest = ele

print("Second Largest Number:", second_largest)
```

```
Second Largest Number: 75
```

In [13]:
```python
#Ask user for 5 names, store them into a text file, then read and display them

with open("names.txt", "w") as file:
    for i in range(5):
        name = input(f"Enter name {i+1}: ")
        file.write(name + "\n")

print("\nNames from file:")
with open("names.txt", "r") as file:
    for name in file:
        print(name)
```

```
Names from file:
asmit

omm

hamza

neeraj

raj
```

In [14]:
```
#Create a dictionary where keys are numbers from 1 to N and values are their square

n = int(input("Enter n: "))
squares = {}

for i in range(1,n+1):
    squares[i] = i * i

print(squares)
```

```
{1: 1, 2: 4, 3: 9, 4: 16, 5: 25}
```

In [16]:
```
#Write a function to check whether two strings are anagrams

def is_anagram(s1, s2):
    return sorted(s1.lower()) == sorted(s2.lower())

str1 = input("Enter first string: ")
str2 = input("Enter second string: ")

if is_anagram(str1, str2):
    print(f"{str1} and {str2} are anagrams")
else:
    print(f"{str1} and {str2} are not anagrams")
```

```
saw and was are anagrams
```

In [17]:
```
#Create a class Employee with name and salary, display details and calculate annual

class Employee:
    def __init__(self, name, salary):
        self.name = name
        self.salary = salary

    def display(self):
        print("Name:", self.name)
        print("salary:", self.salary)

    def annual_salary(self):
        return self.salary * 12

emp = Employee("Asmit", 50000)
emp.display()
print("annual salary", emp.annual_salary())
```

```
Name: Asmit
salary: 50000
annual salary 600000
```

In [21]:
```
#Write a program to print the following pattern for N rows:

n=int(input("Enter number of rows: "))

for i in range(1, n+1):

    for j in range(n-i):
        print(" ", end="")
```

```
    for k in range(2*i-1):
        print("*", end="")

    print()
```

```
  *
 ***
*****
*******
```

In [ ]: