In [1]:
```python
#1. Given a list of numbers, write a python program that returns a new list which Has all
#duplicate elements removed. And is sorted in an increasing order.
#Ex:
#Input:
#[2,1,3,4,2,3,3,2,7,9,8,7]
#Output:
#[1,2,3,4,7,8,9]
```

In [6]:
```python
list1=[2,1,3,4,2,3,3,2,7,9,8,7]
x=set(list1)
list(x)
```

Out[6]: [1, 2, 3, 4, 7, 8, 9]

In [7]:
```python
#2. Write a Python program where you will iterate over both keys and values in dictionaries.
```

In [14]:
```python
dictionary={"Tea":10,"Coffee":15,"Boost":20,"Ginger_Tea":15}
for keys,values in dictionary.items():
    print(keys,values)
```

```
Tea 10
Coffee 15
Boost 20
Ginger_Tea 15
```

In [ ]:
```python
#3. Write a Python program that takes a dictionary of student names and returns a list of student names in alphabetical order
#Ex:
#Input:
#{"Student 1": "Tarun", "Student 2": "Manoj", "Student 3": "Gephi"}
#Output:
# ["Gephi","
#Manoj"," Tarun"]
```

In [27]:
```python
x={"Student1": "Tarun", "Student2": "Manoj", "Student3": "Gephi"}
y=[]
for keys,values in x.items():
    y.append(values)
    y.sort()
print(y)
```

```
['Gephi', 'Manoj', 'Tarun']
```

In [40]:
```python
#4. Write a Python which returns a new list of Booleans, from a given number. Iterating
#through the number one digit at a time, append True if the digit is 1 and False if it is 0.
#Ex:
#Input: "01001"
#Output: ["False", "True", "False"," False"," True"]
```

In [52]:
```python
var1="01001"
var2=[]
for y in var1:
    if y=="1":
        var2.append("True")
    elif y=="0":
        var2.append("False")
print(var2)
```

['False', 'True', 'False', 'False', 'True']

In [ ]:
```python
#5.Write a Python program where you will return a dictionary where the keys will be the character and the values will
#be the occurrence of the character in the string, and it should for any string inputs (dynamic)
#Ex: Input: "my name is ame"
#Output: {"m":3," y":1," n":1," a":2," e":2," i":1," s":1}
```

In [4]:
```python
user_input = input("Type Your String : ")
char_occurence = {}
for i in user_input:
    char_occurence.update({i:user_input.count(i)})
print(char_occurence)
```

Type Your String : dineshreddy
{'d': 3, 'i': 1, 'n': 1, 'e': 2, 's': 1, 'h': 1, 'r': 1, 'y': 1}

In [3]:
```python
x=input("Enter the string : ")
b=set(x)
c=list(b)
dict1=dict()
for i in c:
    dict1.update({i:x.count(i)})
print(dict1)
```

Enter the string : dineshreddy
{'d': 3, 'i': 1, 'r': 1, 's': 1, 'n': 1, 'h': 1, 'y': 1, 'e': 2}

In [ ]:
```python
#6. Given a dictionary containing the names and ages of a group of people, return the name of the oldest person.
#Ex:
#Input: {"Tmma": 41, "Ackes": 45, "myna": 15, "Benthon": 29}
#Output: "Ackes"
```

In [10]:
```python
dictionary={"vicky":34,"samun":21,"varun":54,"pawan":23}
var=max(dictionary.values())
for y in dictionary:
    if var==dictionary[y]:
        print("oldest person: {}".format(y))
```

oldest person: varun

In [ ]:
```python
#7. Write a Python program to create a Rock, Paper, Scissor game, use two inputs for two players:
#Conditions: -Rock beats Scissors, Scissors beats Paper, Paper beats Rock
```

In [12]:
```python
player1=input("enter first choice:")
player2=input("enter second choice:")
if player1=="rock":
    if player2=="rock":
        print("game was tie")
    elif player2=="paper":
        print("paper is winner")
    elif player2=="scissors":
        print("rock is winner")
if player1=="scissors":
    if player2=="scissors":
        print("game was tie")
    elif player2=="rock":
        print("rock is winner")
    elif player2=="paper":
        print("scissors is winner")
if player1=="paper":
    if player2=="paper":
        print("game was tie")
    elif player2=="rock":
        print("paper is winner")
    elif player2=="scissors":
        print("scissors is winner")
else:
    print("check the game mistake")
```

enter first choice:paper
enter second choice:scissors
scissors is winner

In [8]:
```python
#8.Create a program that returns a list of items that you can afford in the store with the money you have in your wallet.
#Create a dictionary with items as key and price as values
#Ex:
#Input:
#{"water bottles": "20"," chips":10," Iphone";49000"," towel":90," pens":58," cake";400}
#Your wallet balance: -50
#Output: ["water bottles", "chips"]
```

In [21]:
```python
s={"water_bottle": 20,"chips":10,"Iphone":49000,"towel":49,"pens":58,"cake":400}
t=[]
for keys,values in s.items():
    if values<50:
        t.append(keys)
print(t)
```

```
['water_bottle', 'chips', 'towel']
```

In [ ]:
```python
#9. Write a Python program to create a union of sets.
```

In [25]:
```python
collection1={1,2,3,4,5,5,6}
collection2={2,3,4,5,6,7,8,9}
collection1.union(collection2)
```

Out[25]: {1, 2, 3, 4, 5, 6, 7, 8, 9}

In [26]:
```python
#10. Write a Python program to check if a given value is present in a set or not (Dynamic)
```

In [37]:
```python
val1=int(input("enter a value:"))
val2={1,4,5,6}
val3=[]
if val1 in val2:
    val3.append(val1)
    print(set(val3),"present in a set")
else:
    print("not present in a set")
```

```
enter a value:6
{6} present in a set
```

In [39]:
```python
val1=int(input("enter a value:"))
val2={1,4,5,6}
val3=[]
if val1 in val2:
    val3.append(val1)
    print(set(val3),"present in a set")
else:
    print("not present in a set")
```

```
enter a value:8
not present in a set
```

In [ ]:
```python
#11. Write a Python program to find the occurrences of 3 most common words in a given text. And make it as a dictionaries
#Ex:
#Input:
#"Cat dog dog cat horse dog dog mouse horse dog mouse tiger lion tiger"
#cat mouse snail"
# Output: ("dog":5,"cat":3," mouse";3)
```

In [8]:
```python
words="cat dog dog cat horse dog dog mouse horse dog mouse tiger lion tiger cat mouse snail"
new=words.split()
new
dic1={}
for i in new:
    if new.count(i)>=3:
        if i in dic1:
            dic1[i]=dic1[i]+1
        else:
            dic1[i]=1
print(dic1)
```

{'cat': 3, 'dog': 5, 'mouse': 3}

In [ ]:

In [22]:
```python
#12. Write a Python program that accepts name of given subject and mark, and
#make subjects as keys in dictionaries and marks as values and print the final
#dictionary with subjects and marks.
```

In [23]:
```python
d1=["maths","physicss","chemistry","computerscience"]
d2=[80,90,80,95]
dict1={}
for i in range(len(d1)):
    dict1.update({d1[i]:d2[i]})
print(dict1)
```

{'maths': 80, 'physicss': 90, 'chemistry': 80, 'computerscience': 95}

In [ ]: