1. Write a Python script to add key to a dictionary?
Sample Dictionary : {0: 10, 1: 20}
Expected Result : {0: 10, 1: 20, 2: 30}

```
d = {0:10, 1:20}
print(d)
d.update({2:30})
print(d)
```

2. Write a Python script to concatenate following dictionaries to create a new one?

Sample Dictionary :
dic1={1:10, 2:20}
dic2={3:30, 4:40}
dic3={5:50,6:60}
Expected Result : {1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}

```
dic1={1:10, 2:20}
dic2={3:30, 4:40}
dic3={5:50,6:60}
dic4 = {}
for d in (dic1, dic2, dic3):
        dic4.update(d)
print(dic4)
```

3. Write a Python script to check if a given key already exists in a dictionary?

```
d = {1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}
x=input("Enter a key")
if x in d:
    print('Key is present in the dictionary')
else:
    print('Key is not present in the dictionary')
```

4. Write a Python script to print a dictionary where the keys are numbers between 1 and 15 (both included) and the values are square of keys?
Sample Dictionary
{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81, 10: 100, 11: 121, 12: 144, 13: 169, 14: 196, 15: 225}

```
n=int(input("Enter a number: "))
d=dict()
for x in range(1,n+1):
   d[x]=x**2
print(d)
```

5. Python Program to Create a Dictionary with Key as First Character of the string and Value as Words Starting with that Character in that string

```
test_string=input("Enter string:")
l=test_string.split()
d={}
```

```
for word in l:
   if(word[0] not in d.keys()):
      d[word[0]]=[]
      d[word[0]].append(word)
   else:
      if(word not in d[word[0]]):
        d[word[0]].append(word)
for k,v in d.items():
      print(k,":",v)
```

6. Write a Python program to count number of items in a dictionary value that is a list.

```
dict =  {'Alex': ['subj1', 'subj2', 'subj3'], 'David': ['subj1', 'subj2']}
mylist=dict.values()
c=0
for i in dict.values():
        c=c+len(i)
print (c)
```

7. Write a Python program to count of the letters from the string and create a dictionary from a string.

```
str1 = 'aaaaabbbbbAAAAAbbbbb'

my_dict = {}

for l in str1:

        if(l in my_dict.keys()):

                continue

        c=str1.count(l)

        my_dict[l]=c

print (my_dict)
```

8. Create a dictionary to hold information about pets. Each key is an animal's name, and each value is the animal baby name.

- **For example, 'cat': 'kitten'**
- **Put at least 3 key-value pairs in your dictionary.**
- **Use a for loop to print out a series of statements such as "cat baby name is kitten"**
- **Modify one of the values in your dictionary.**
- **Add a new key-value pair to your dictionary.**
  - **Use a for loop to print out a series of statements .**
- **Remove one of the key-value pairs from your dictionary.**
  - **Use a for loop to print out a series of statements**

```
dict1 = {'cat':'kitten','dog':'puppy','horse':'foal'}

for l in dict1.keys():
```

```
    print ("{} baby name is {}".format(l,dict1[l]))
```

10.Create a dictionary of products purchased and their MRPs. Calculate the bill and display to the customer

```
Products = {'Pen Drive': 500, 'Mouse':400, 'Keyboard': 600}
sum = 0
for val in Products.values():
    sum += val
print(sum)
```

12.Write a program that has a dictionary of your friends name (as keys) and their birthdays. Print the items in the dictionary in a sorted order. Prompt the user to enter a name and check if it is present in the dictionary. If the name does not exist, then ask the user to enter DOB. Add the details in the dictionary.

```
Bdays = {'Arav' : '17/3', 'Manan' : '26/2', 'Pratham' : '5/6'}
print(sorted(Bdays.keys()))
name = input("Enter the name you are looking for : ")
if(name in Bdays):
    print(Bdays[name])
else:
    bday = input("Enter birth date : ")
    Bdays[name] = bday
    print(Bdays)
```

13.Write a program that prints the maximum and minimum value in a dictionary

```
Marks = {'CSA' : 90, 'DS' : 92, 'FOC' : 91, 'C++' : 94, 'C' : 88}
mylist=sorted(Marks.values())
print(mylist[0])
print(mylist[1])
#print(max(Marks.values()))
#print(min(Marks.values()))
```