1) Write a Python program to create a dictionary of keys x, y, and z where each key has as value a list from 11-20, 21-30, and 31-40 respectively. Access the fifth value of each key from the dictionary.

```
d = {'x': list(range(11,20)), 'y': list(range(21,30)), 'z': list(range(31,40))}
print(d['x'][4])
print(d['y'][4])
print(d['z'][4])
```

2) Write a Python script to add a key to a dictionary.

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

3) Write a Python script to check whether a given key already exists in a dictionary.

```
d = {0: 10, 1: 20}
k = int(input("Enter key: "))
print(k in d)
```

4) Write a Python program to count the values associated with key in a dictionary.

```
data = [
    {'id': 1, 'success': True, 'name': 'Lary'},
    {'id': 2, 'success': False, 'name': 'Rabi'},
    {'id': 3, 'success': True, 'name': 'Alex'}
]
count = sum(1 for i in data if i['success'])
print(count)
```

5) Write a Python program to create a dictionary from two lists without losing duplicate values.

```
l1 = ['Class-V', 'Class-VI', 'Class-VII', 'Class-VIII']
l2 = [1, 2, 2, 3]
d = {}
for i, j in zip(l1, l2):
    d[i] = {j}
print(d)
```

6) Write a Python program to check a dictionary is empty or not.

```
d = {}
print(len(d) == 0)
```

7) Write a Python program to combine two dictionary adding values for common keys.

```
from collections import Counter

d1 = {'a': 100, 'b': 200, 'c': 300}
d2 = {'a': 300, 'b': 200, 'd': 400}
c = Counter(d1) + Counter(d2)
print(c)
```

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

```
mydictionary1 = {
    'Names': ['Rohit', 'Ganesh', 'SRK', 'Akshay'],
    'age': 40,
    'addresses': ['Mumbai', 'Delhi', 'Kolkara', 'Banglore'],
    'emails': ['actor.gmail.com', 'movie.gmail.com']
}
total = sum(len(v) if isinstance(v, list) else 1 for v in
mydictionary1.values())
print(total)
```

9) Write a Python program to create a dictionary from a string.

```
s = 'w3resource'
d = {}
for ch in s:
    d[ch] = d.get(ch, 0) + 1
print(d)
```

10) Write a Python program to get the key, value and item in a dictionary.

```
mydictionary = {1: 'xyz', 3: 'abc', 5: 'pqr', 2: 'xzz'}
for k, v in mydictionary.items():
```

```
    print("Key:", k, " Value:", v)
print("Total items are", len(mydictionary))
```

11) Write a Python program to get the maximum and minimum value in a dictionary.

```
d = {'a': 100, 'b': 200, 'c': 50}
print("Max:", max(d.values()))
print("Min:", min(d.values()))
```

12) Write a Python program to map two lists into a dictionary.

```
prnnos = [1, 2, 3, 4, 5, 6]
names = ['abc', 'def', 'pqr', 'lmn', 'xyz', 'uvw']
d = dict(zip(prnnos, names))
print(d)
```

13) Write a Python program to match key values in two dictionaries.

```
d1 = {'key1': 1, 'key2': 3, 'key3': 2}
d2 = {'key1': 1, 'key2': 2}
for k in d1:
    if k in d2 and d1[k] == d2[k]:
        print(f"{k}: {d1[k]} is present in both x and y")
```

14) Write a Python program to print a dictionary line by line.

```
Players = {
    'Rohit': {'runs': 10000, 'centuries': 15},
    'Virat': {'runs': 12000, 'centuries': 18}
}
for player, stats in Players.items():
    print(player)
    for k, v in stats.items():
        print(f"{k} :\t {v}")
```

15) Write a Python program to remove a key from a dictionary.

```
d = {1: 10, 2: 20, 3: 30}
d.pop(2, None)
print(d)
```

16) Write a Python program to remove spaces from dictionary keys.

```
Students = {'d 01': 'Abc', 'd 0 2': 'Xyz', 'd0 3': 'Pqr'}
d = {k.replace(' ', ''): v for k, v in Students.items()}
print(d)
```

17) Write a Python program to sum all the items in a dictionary.

```
d = {'a': 100, 'b': 200, 'c': 300}
print(sum(d.values()))
```

18) Write a Python script to merge two Python dictionaries.

```
mydictionary1 = {1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36}
mydictionary2 = {7: 49, 8: 64, 9: 81, 10: 100, 11: 121, 12: 144}
mydictionary1.update(mydictionary2)
print(mydictionary1)
```

19) Write a Python script to concatenate following dictionaries to create a new one.

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