1. Write a program to create a dictionary containing names of competition winner students as keys and number of their wins as values.

winner={"manas":100,"shubha":0}

print(winner)

**OUTPUT:**

**{'manas': 100, 'shubha': 0}**

1. Write a program to create a phone directory for all your friends and then print it.

phone={"Shubha":9864830583,"Rutesh":9875790675,"LIpsa":9875674893,"Rupesh":9874578587,"Bulu":8765845756}

print(phone)

**OUTPUT:**

{'Shubha': 9864830583, 'Rutesh': 9875790675, 'LIpsa': 9875674893, 'Rupesh': 9874578587, 'Bulu': 8765845756}

1. Marks of three students ‘Suniti’, ‘Ryna’, and ‘ziva’ in 3 subjects are available in dictionary.

D1 = {1:40, 2:70, 3:70}

D2 = {1:40, 2:50, 3:60}

D1 = {1:70, 2:80, 3:90}

output:

Key Value

Ryna {1:40, 2:50, 3:60}

Subject(Key) Marks(Value)

1. 40
2. 50
3. 60

Find the highest mark in the subject 3.

D1 = {1:40, 2:70, 3:70}

D2 = {1:40, 2:50, 3:60}

D3 = {1:70, 2:80, 3:90}

marks={'Suniti':D1,'Ryna':D2,'Ziva':D3}

i =int(input("Enter a nummber between 0 to 2"))

print("keys \t Value")

if(i==0):

print("Suniti",marks['Suniti'])

print("Subject(key)\tMarks(values)")

for key,value in marks['Suniti'].items():

print(key,"\t",value)

elif(i==1):

print("Ryna",marks['Suniti'])

print("Subject(key)\tMarks(values)")

for key,value in marks['Ryna'].items():

print(key,"\t",value)

else:

print("Ziva",marks['Ziva'])

print("Subject(key)\tMarks(values)")

for key,value in marks['Ziva'].items():

print(key,"\t",value)

#Highest mark

highest=0

for i in marks.values():

if(i[3]>highest):

highest=i[3]

print("The higest mark in subject 3 =",highest)

**OUTPUT:**

Enter a nummber between 0 to 23

keys Value

Ziva {1: 70, 2: 80, 3: 90}

Subject(key) Marks(values)

1 70

2 80

3 90

The higest mark in subject 3 = 90

4. Create a dictionary whose keys are month names and whose values are the number of days in the corresponding months.

a) Ask the user to enter a month name and use the dictionary to tell them how many days are in the month.

b) Print out all of the keys in alphabetical order.

c) Print out all of the month with 31 days.

d) Print out the (key value) pairs started by the number of days in each month.

months={'jan':31,"feb":28,'mar':31,'apr':30,'may':31,"jun":30,"july":31,"aug":31,"sep":30,"oct":31,"nov":30,"dec":31}

n=input("Enter a month name")

print("The number of days in the month = ",months[n])

l=list(months.keys())

l.sort()

sorted\_months={i:months[i] for i in l}

print(sorted\_months)

for key,value in months.items():

print(value,":",key)

**OUTPUT:**

Enter a month namejan

The number of days in the month = 31

{'apr': 30, 'aug': 31, 'dec': 31, 'feb': 28, 'jan': 31, 'july': 31, 'jun': 30, 'mar': 31, 'may': 31, 'nov': 30, 'oct': 31, 'sep': 30}

31 : jan

28 : feb

31 : mar

30 : apr

31 : may

30 : jun

31 : july

31 : aug

30 : sep

31 : oct

30 : nov

31 : dec

5. Repeatedly ask the user to enter a team name and how many games the team has won and how many they lost. Store this information in a dictionary whose the keys are the team names and the values are list of the form [wins, losses]

a) Using the dictionary created above, allow the user to enter a team names and print out the team’s winning percentage.

b) Using the dictionary, create a list whose entries are the member of wins of each team.

c) Using the dictionary, create a list of all those teams that have winning records

teams={}

for i in range(5):

name=input("Enter the name of team")

wins=int(input("Enter the wins"))

losses=int(input("Enter the losses"))

teams[name]=[wins,losses]

#a

print(teams)

name=input("Enter the team name to check the percentage of the winning:")

print((teams[name][0]//teams[name][0]+teams[name][1])\*100)

wins\_list=[i[0] for i in teams.values()]

print("The winning list")

print(wins\_list)

winning\_record=[]

for key,values in teams.items():

if values[0] > values[1]:

winning\_record.append(key)

print("Winning record:",winning\_record)

**OUTPUT:**

Enter the name of teamIndia

Enter the wins50

Enter the losses0

Enter the name of teamPakistan

Enter the wins5

Enter the losses20

Enter the name of teamSriLanka

Enter the wins20

Enter the losses30

Enter the name of teamEngland

Enter the wins30

Enter the losses20

Enter the name of teamNewzeland

Enter the wins10

Enter the losses5

{'India': [50, 0], 'Pakistan': [5, 20], 'SriLanka': [20, 30], 'England': [30, 20], 'Newzeland': [10, 5]}

Enter the team name to check the percentage of the winning:India

100

The winning list

[50, 5, 20, 30, 10]

Winning record: ['India', 'England', 'Newzeland']

**6.** Below are the two [lists](https://pynative.com/python-lists/). Write a Python program to convert them into a dictionary in a way that item from list1 is the key and item from list2 is the value

Keys=[‘Ten’,’Twenty’,’Thirty’]

Values=[10,20,30]

Output {‘ten:10’,’Twenty:20’,’Thirty:30}

**keys=['Ten','Twenty','Thirty']**

**values=[10,20,30]**

**dict={}**

**for i in range(len(keys)):**

**dict[keys[i]]=values[i]**

**print(dict)**

**OUTPUT:**

**{'Ten': 10, 'Twenty': 20, 'Thirty': 30}**

**7. Merge two Python dictionaries into one**

**dict1 = {'Ten': 10, 'Twenty': 20, 'Thirty': 30}**

**dict2 = {'Thirty': 30, 'Fourty': 40, 'Fifty': 50}**

**Expected output:**

{'Ten': 10, 'Twenty': 20, 'Thirty': 30, 'Fourty': 40, 'Fifty': 50}

dict1 = {'Ten': 10, 'Twenty': 20, 'Thirty': 30}

dict2 = {'Thirty': 30, 'Fourty': 40, 'Fifty': 50}

dict1.update(dict2)

print(dict1)

**OUTPUT:**

{'Ten': 10, 'Twenty': 20, 'Thirty': 30, 'Fourty': 40, 'Fifty': 50}

**8. Initialize dictionary with default values**

In Python, we can initialize the keys with the same values.

**Given**:

employees = ['Kelly', 'Emma']

defaults = {"designation": 'Developer', "salary": 8000}

**Expected output:**

{'Kelly': {'designation': 'Developer', 'salary': 8000}, 'Emma': {'designation': 'Developer', 'salary': 8000}}

employees = ['Kelly', 'Emma']

defaults = {"designation": 'Developer', "salary": 8000}

dict={}

for i in employees:

dict[i]=defaults

print(dict)

**OUTPUT:**

{'Kelly': {'designation': 'Developer', 'salary': 8000}, 'Emma': {'designation': 'Developer', 'salary': 8000}}

**9. Create a dictionary by extracting the keys from a given dictionary**

Write a Python program to create a new dictionary by extracting the mentioned keys from the below dictionary.

**Given dictionary**:

\_dict = {

"name": "Kelly",

"age": 25,

"salary": 8000,

"city": "New york"}

# Keys to extract

keys = ["name", "salary"]

**Expected output:**

{'name': 'Kelly', 'salary': 8000}

dict = {

"name": "Kelly",

"age": 25,

"salary": 8000,

"city": "New york"}

keys = ["name", "salary"]

d={}

for i in keys:

d[i]=dict[i]

print(d)

**OUTPUT:**

{'name': 'Kelly', 'salary': 8000}

**10 Delete a list of keys from a dictionary**

**Given**:

sample\_dict = {

"name": "Kelly",

"age": 25,

"salary": 8000,

"city": "New york"

}

# Keys to remove

keys = ["name", "salary"]

**Expected**

{‘age’:25,’city’:’New york}

sample\_dict = {

"name": "Kelly",

"age": 25,

"salary": 8000,

"city": "New york"

}

keys = ["name", "salary"]

for i in keys:

sample\_dict.pop(i)

print(sample\_dict)

**OUTPUT:**

{'age': 25, 'city': 'New york'}

**11. Check if a value exists in a dictionary**

We know how to check if the key exists in a dictionary. Sometimes it is required to check if the given value is present.

Write a Python program to check if value 200 exists in the following dictionary.

**Given**:

sample\_dict = {'a': 100, 'b': 200, 'c': 300}

**Expected output:**

200 present in a dict

**12. Rename key of a dictionary**

Write a program to rename a key city to a location in the following dictionary.

**Given**:

sample\_dict = { "name": "Kelly", "age":25, "salary": 8000, "city": "New york"}

**Expected output:**

{'name': 'Kelly', 'age': 25, 'salary': 8000, 'location': 'New york'}

**13: Get the key of a minimum value from the following dictionary**

sample\_dict = { 'Physics': 82, 'Math': 65, 'history': 75}

**Expected output:**

Math