In [1]:

```
#Q1.Create a dictionary 'student' with keys roll_no, name, age, contact,Assign value
student={'Roll_No':47, 'Name': 'Sumit', 'Age':22, 'Contact':8625866960}
print(student)
```

```
{'Roll_No': 47, 'Name': 'Sumit', 'Age': 22, 'Contact': 8625866960}
```

In [3]:

```
#Q2. Create a dictionary 'stud' with keys roll_no and name. Assign values of your keys.
stud={'Roll_No':47, 'Name': 'Sumit'}
print(stud)
```

```
{'Roll_No': 47, 'Name': 'Sumit'}
```

In [4]:

```
#Q3. Create an empty dictiopnary by the name sample.
sample={}
```

In [7]:

```
#Q4. Create a tuple and add it as a key to dictionary Sample. Assign values of your keys.
tuple={('Sample'): 'Sumit'}
print(tuple)
```

```
{'Sample': 'Sumit'}
```

In [8]:

```
#Q5. Retrieve the value of name from 'Student'.
x=student.get('Name')
print(x)
```

```
Sumit
```

In [11]:

```
#Q6. Update the value of age to 30 in 'Student'.
student.update({'Age': '20'})
print(student)
```

```
{'Roll_No': 47, 'Name': 'Sumit', 'Age': '20', 'Contact': 8625866960}
```

In [12]:

```
#Q7. Find how many elements are present in dictionary 'stud'.
print(len(stud))
```

```
2
```

In [13]:

```
#Q8.Produce a printable string representation of dictionary 'stud'.
print("String: %s"%str (stud))
```

```
String: {'Roll_No': 47, 'Name': 'Sumit'}
```

In [14]:

```
#Q9. Retrieve all the keys from 'Student'.
print(student.keys())
```

```
dict_keys(['Roll_No', 'Name', 'Age', 'Contact'])
```

In [17]:

```
#10. Retrieve all the values from 'Stu'.
print(stud.values())
```

```
dict_values([47, 'Sumit'])
```

In [18]:

```
#Q11.Add all elements of dictionary stud to Sample.
Sample= stud.copy()
print('Sample:', Sample)
print('stud:', stud)
```

```
Sample: {'Roll_No': 47, 'Name': 'Sumit'}
stud: {'Roll_No': 47, 'Name': 'Sumit'}
```

In [19]:

```
#Q12. Find the value of name from 'stud'.
print(stud['Name'])
```

```
Sumit
```

In [21]:

```
#Q13.Update contact-1234567890 in 'stud'.
stud.update({'Contact': '1234567890'})
print(stud)
```

```
{'Roll_No': 47, 'Name': 'Sumit', 'Contact': '1234567890'}
```

In [22]:

```
#Q14. Create a tuple. Add all the tuple items to a dictionary as keys and set the
tuple={('key1'):10,('key2'):10}
print(tuple)
```

```
{'key1': 10, 'key2': 10}
```

In [23]:

```
#Q15. Implement a python program to prove that mutable data types cannot be assign
dict={['key1']:10,['key2']:10}
print(dict)
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In [23], line 2
      1 #Q15. Implement a python program to prove that mutable data types ca
nnot be assign
----> 2 dict={['key1']:10,['key2']:10}
      3 print(dict)

TypeError: unhashable type: 'list'
```

In [24]:

```
#16. Implement a python program to create a dictionary List and tuple
#List and tuple in dictionary
List1=[("Sumit",47), ("Shubham",46), ("Pranav",42)]
dict1=dict()
for student,score in List1:
    dict1.setdefault(student,[] ).append(score)
print(dict1)
```

```
{'Sumit': [47], 'Shubham': [46], 'Pranav': [42]}
```

In [ ]: