In [1]:
```
#1. Create a dictionary of 5 students with their marks. Print the dictionary.
student={
    "chaitali":87,
    "Ram":89,
    "Priti":67,
    "Rahul":76,
    "Ashu":96}
print(student)
```

```
{'chaitali': 87, 'Ram': 89, 'Priti': 67, 'Rahul': 76, 'Ashu': 96}
```

In [2]:
```
#2. Access the value of a specific key from a dictionary.
dict1={"Name":"Chaitali","City":"Beed","State":"Maharashtra","Contact":9325111865}
print(dict1)
print(dict1["City"])
```

```
{'Name': 'Chaitali', 'City': 'Beed', 'State': 'Maharashtra', 'Contact': 9325111865}
Beed
```

In [3]:
```
#3. Add a new key-value pair in the dictionary.
dict1={}
dict1.update({"A":21,"B":43,"C":56})
print(dict1)
```

```
{'A': 21, 'B': 43, 'C': 56}
```

In [2]:
```
#4. Update the value of an existing key in the dictionary.
d={"name":"John","age":30,"city":"Banglore"}
print("Original dectionary",d)
d["age"]=28
print("Updated dictionary",d)
```

```
Original dectionary {'name': 'John', 'age': 30, 'city': 'Banglore'}
Updated dictionary {'name': 'John', 'age': 28, 'city': 'Banglore'}
```

In [4]:
```
#5. Remove a key-value pair from the dictionary using pop().
my_dict={'A':21,'B':32,'C':54,'D':12}
print(my_dict)
my_dict.pop('B')
print(my_dict)
```

```
{'A': 21, 'B': 32, 'C': 54, 'D': 12}
{'A': 21, 'C': 54, 'D': 12}
```

In [6]:
```
#6. Get all keys of a dictionary using .keys() function.
dicti={'Name':'Chaitali','City':'Banglore','State':'Karnataka'}
keys=dicti.keys()
print(keys)
```

```
dict_keys(['Name', 'City', 'State'])
```

In [7]:
```
#7. Get all values of a dictionary using .values() function.
dicti={'Name':'Chaitali','City':'Banglore','State':'Karnataka'}
values=dicti.values()
print(values)
```

```
dict_values(['Chaitali', 'Banglore', 'Karnataka'])
```

In [8]:
```
#8. Get all key-value pairs from a dictionary using .items().
dicti={'Name':'Chaitali','City':'Banglore','State':'Karnataka'}
items=dicti.items()
print(items)
```

```
dict_items([('Name', 'Chaitali'), ('City', 'Banglore'), ('State', 'Karnataka')])
```

In [13]:
```
#9. Check if a given key exists in the dictionary.
dict1={'A':'Python','B':'Java','C':'HTML','D':'CSS'}
key="B"
if dict1.get(key) is not None:
    print(f"The key {key} is exist")
else:
    print(f"The key {key} is not exist")
```

```
The key B is exist
```

In [14]:
```
#10. Create a dictionary and print only keys using a loop.
dict1={'A':'Python','B':'Java','C':'HTML','D':'CSS'}
keys=dict1.keys()
print(keys)
for i in keys:
    print(i)
```

```
dict_keys(['A', 'B', 'C', 'D'])
A
B
C
D
```

In [15]:
```
#11. Create a dictionary and print only values using a loop.
dict2={'Name':'Chaitali','City':'Banglore','State':'Karnataka'}
values=dict2.values()
print(values)
for i in values:
    print(i)
```

```
dict_values(['Chaitali', 'Banglore', 'Karnataka'])
Chaitali
Banglore
Karnataka
```

In [16]:
```
#12. Merge two dictionaries.
dict1={'a':12,'b':43,'c':34}
dict2={'d':56,'e':67,'f':76}
dict1.update(dict2)
print(dict1)
```

```
{'a': 12, 'b': 43, 'c': 34, 'd': 56, 'e': 67, 'f': 76}
```

In [18]:
```
#13. Write a program to find the key with the maximum value in a dictionary.
dic={'a': 12, 'b': 43, 'c': 34, 'd': 56, 'e': 67, 'f': 76}
max_key=None
max_value=None
for keys,values in dic.items():
    if max_value is None or values > max_value:
        max_value=values
        max_key=keys
print("The maximum value is:",max_key)
```

```
The maximum value is: f
```

In [27]:
```
#14. Create a nested dictionary and access the inner dictionary value.
details={"emp1":{"Name":"Arjun",
                 "Age":25,
                 "Company":"TCS",
```

```
                "Location":"Banglore",
                "Salary":43623},
        "emp2":{"Name":"Riya",
                 "Age":23,
                 "Company":"Infosys",
                "Location":"Chennai",
                "Salary":56432},
        "emp3":{"Name":"Prachi",
                 "Age":26,
                 "Company":"Microsoft",
                "Location":"Mumbai",
                "Salary":234544},
        "emp4":{"Name":"Raghav",
                 "Age":27,
                 "Company":"capgimini",
                "Location":"Pune",
                "Salary":35634}}
details["emp3"]
```

Out[27]:
```
{'Name': 'Prachi',
 'Age': 26,
 'Company': 'Microsoft',
 'Location': 'Mumbai',
 'Salary': 234544}
```

In [21]:
```
#15. Create two lists: one with names and one with marks. Use zip() to combine them into a dictionary.
names={"Rahul","Shreya","Priti","Radha"}
marks={78,97,58,87}
dict1=dict(zip(names,marks))
print(dict1)
```

```
{'Radha': 97, 'Shreya': 58, 'Priti': 78, 'Rahul': 87}
```

In [24]:
```
#16. Create a dictionary using fromkeys() with a list of keys and the same default value.
key=['a','b','c','d']
value=dict.fromkeys(key)
print(value)
```

```
{'a': None, 'b': None, 'c': None, 'd': None}
```