Q1. WAP to create a dictionary of numbers mapped to their negative value for numbers from 1-5. The dictionary should contain something like this:Do with both with and without range based for loop. {1:-1,2:-2,3:-3...}

In [1]:
```
d={}
for i in range(1,6):
    d[i]=i*-1
print(d)
```

```
{1: -1, 2: -2, 3: -3, 4: -4, 5: -5}
```

Q2. Check which of the following declarations will work

In [2]:
```
d = {1=2, 2=3}
```

```
  File "<ipython-input-2-dba965ec7a9c>", line 1
    d = {1=2, 2=3}
           ^
SyntaxError: invalid syntax
```

In [27]:
```
d = {1:2,2:3}
print(d)
```

```
{1: 2, 2: 3}
```

In [28]:
```
d={1,2;2,3}
```

```
  File "<ipython-input-28-6b768d513104>", line 1
    d={1,2;2,3}
         ^
SyntaxError: invalid syntax
```

In [29]:
```
d={'a':'A','b':1,c:[1234]}
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-29-ba05f5c3031f> in <module>
----> 1 d={'a':'A','b':1,c:[1234]}

TypeError: unhashable type: 'list'
```

In [30]:
```
d={'a':'A','b':1,'c':[1234]}
print(d)
```

```
{'a': 'A', 'b': 1, 'c': [1234]}
```

In [31]:
```
d=dict([(1,2),(2,3)])
```

```
print(d)
```

```
{1: 2, 2: 3}
```

In [32]:
```
d=dict(((1,2),(2,3)))
print(d)
```

```
{1: 2, 2: 3}
```

In [33]:
```
d=dict((1,2),(2,3)])
print(d)
```

```
  File "<ipython-input-33-9b61c0c16dd5>", line 1
    d=dict((1,2),(2,3)])
                        ^
SyntaxError: closing parenthesis ']' does not match opening parenthesis '('
```

In [34]:
```
d=dict(x=2,y=3)
print(d)
```

```
{'x': 2, 'y': 3}
```

In [35]:
```
l1=dict('x'=2,'y'=3)
print(d)
```

```
  File "<ipython-input-35-34903fd9eb87>", line 1
    l1=dict('x'=2,'y'=3)
            ^
SyntaxError: expression cannot contain assignment, perhaps you meant "=="?
```

In [36]:
```
l2=dict(1=2,2=3)
print(l2)
```

```
  File "<ipython-input-36-1078b6154822>", line 1
    l2=dict(1=2,2=3)
            ^
SyntaxError: expression cannot contain assignment, perhaps you meant "=="?
```

Q3.Read help for zip and write a program that has two lists

11= [1,2,3,4]

12= [10,20,30,40]

And converts them to a dictionary d containing (1:10,2:20.....}

In [37]:
```
l1= [1,2,3,4]
l2= [10,20,30,40]
data=dict(zip(l1,l2))
print(data)
```

```
{1: 10, 2: 20, 3: 30, 4: 40}
```

Q 4. Use range based for loop to store all upper case alphabets and their corresponding ASCII values in the dictionary d The result should be d= ('A': 65, 'B':66)

In [1]:

```
d ={chr(i):i for i in range(65,91)}
print(d)
```

```
{'A': 65, 'B': 66, 'C': 67, 'D': 68, 'E': 69, 'F': 70, 'G': 71, 'H': 72, 'I': 73,
'J': 74, 'K': 75, 'L': 76, 'M': 77, 'N': 78, 'O': 79, 'P': 80, 'Q': 81, 'R': 82,
'S': 83, 'T': 84, 'U': 85, 'V': 86, 'W': 87, 'X': 88, 'Y': 89, 'Z': 90}
```

Q5.Create a mapping of number to word from 0-9.(0:"zero.....)

• Ask user for a single digit number and print the corresponding word format. • Print all keys of above dictionary • Print all Values of a dictionary • Print all Key and Value pairs of above dictionary

In [50]:

```
d={0:"Zero",1:"One",2:"Two",
   3:"Three",4:"Four",
   5:"Five",6:"Six",
   7:"seven",8:"eight",9:"Nine"}
#Ask user for a single digit number and print the corresponding word format.

u=int(input("Enter Single Digit "))
if u in d:
    print(":",d[u],'\n')
else:
    print("Please enter valid digit 0 to 9")

print("all keys of above dictionary")
for k,v in d.items():
    print(k)
print('\n')

print("all Values of a dictionary")
for k,v in d.items():
    print(v)
print('\n')

print("all Key and Value pairs of above dictionary")
for k,v in d.items():
    print("{",k,":",v,"}")
```

```
Enter Single Digit 6
: Six

all keys of above dictionary
0
1
2
3
```

```
4
5
6
7
8
9


all Values of a dictionary
Zero
One
Two
Three
Four
Five
Six
seven
eight
Nine


all Key and Value pairs of above dictionary
{ 0 : Zero }
{ 1 : One }
{ 2 : Two }
{ 3 : Three }
{ 4 : Four }
{ 5 : Five }
{ 6 : Six }
{ 7 : seven }
{ 8 : eight }
{ 9 : Nine }
```

Q6 predict output

In [51]:

```
l1 = ['A', 'B', 'C', 'D']
l2 = ["Apple", 'Ball', "Cat", 'Dog']
d1 = dict(zip(l1, l2))
print(d1)
d2 = dict(list(d1.items()) [::2])
print(d2)
```

```
{'A': 'Apple', 'B': 'Ball', 'C': 'Cat', 'D': 'Dog'}
{'A': 'Apple', 'C': 'Cat'}
```

Q 7.WAP to input a string and count occurrence of each vowel in a string.

In [1]:

```
s = input("enter a string:")
d = {}
for i in s:
    if i in 'aeiouAEIOU':
        d[i] = d.get(i, 0) + 1
    else:
        pass
for k,v in d.items():
    print(k , ":", v)
```

```
enter a string:Beautiful Day
e : 1
a : 2
```

```
u : 2
i : 1
```

Q 8.Update above program to print frequency of each alphabet present in string.

In [4]:

```
s = input("enter a string:")
d = {}
for i in s:
    if i==' ':
        pass
    else:
        d[i] = d.get(i, 0) + 1
for k,v in d.items():
    print(k , ":", v)
```

```
enter a string:Beautiful Day
B : 1
e : 1
a : 2
u : 2
t : 1
i : 1
f : 1
l : 1
D : 1
y : 1
```

Q 9. WAP that takes a string as input and prints frequwncy of each word

In [26]:

```
s = input("enter a string:").split()
d={}
for i in s:
    d[i]=d.get(i,0)+1
for key in d:
    print(key,":",d[key])
```

```
enter a string:count the words in the sentence in
count : 1
the : 2
words : 1
in : 2
sentence : 1
```