In [5]:

```
#ACTIVITY-3

#Consider the string “Welcome to Python world”.
#Perform the following operations:
#A. Count the number of alphabets in the given string.
#B. To extract characters in the given, range from the given string.
#C. Check if the string is alphanumeric or not.
```

In [6]:

```
#A. Count the number of alphabets in the given string.
```

In [8]:

```
# Method #1 : Using isalpha() + len()

test_str='geeksforgeeks!!$ is the best 4 all Geeks 10-0'
print("the original string is:"+ str(test_str))
res=len([ele for ele in test_str if ele.isalpha()])
print("count of alphabets:"+str(res))
```

```
the original string is:geeksforgeeks!!$ is the best 4 all Geeks 10-0
count of alphabets:30
```

In [9]:

```
# Method #2 : Using ascii_uppercase() + ascii_lowercase() + len()
```

In [11]:

```
import string
test_str='geeksforgeeks!!$ is best 4 all Geeks 10-0'
print("the original string is:"+str(test_str))
res=len([ele for ele in test_str if ele in string.ascii_uppercase or ele in string.ascii_lo
print("count of alphabets:"+str(res))
```

```
the original string is:geeksforgeeks!!$ is best 4 all Geeks 10-0
count of alphabets:27
```

In [12]:

```
# B. To extract characters in the given, range from the given string.
```

In [13]:

```
# Method : Using join() + list comprehension
```

In [17]:

```
test_list=["geeksforgeeks", "is", "best", "for", "geeks"]
print("the original list is :"+str(test_list))
strt,end=14,30
res ="" .join([sub for sub in test_list])[strt : end]
print("range charcaters:"+str(res))
```

```
the original list is :['geeksforgeeks', 'is', 'best', 'for', 'geeks']
range charcaters:sbestforgeeks
```

In [18]:

```
# C. Check if the string is alphanumeric or not.
```

In [20]:

```
# Example 1: More examples on Python String isalnum() Method

string="abc 123"
print(string,"is alphanumeric?", string.isalnum())

string="abc_123"
print(string,"is alphanumeric?", string.isalnum())

string="000"
print(string,"is alphanumeric?", string.isalnum())

string="aaaa"
print(string,"is alphanumeric?", string.isalnum())
```

```
abc 123 is alphanumeric? False
abc_123 is alphanumeric? False
000 is alphanumeric? True
aaaa is alphanumeric? True
```

In [21]:

```
# Example 2: isalnum() in if…else Statement

password="user123456"

if password.isalnum():
    print("password is alphanumeric")
else:
    print("password is not alphanumeric")
```

```
password is alphanumeric
```

In [ ]: