Control flow statements

1- Conditional statements(if/else/elif)
2- Iterative/loop statement (for, while)
3- Transfer statement(break,continue, pass)

1- Conditional statements(if/else/elif)

In [ ]:
```
# Syntax
if <Condition>:
    <body>
```

In [2]:
```
grade = 70

if grade > 60:
    print("Grade A")
```

In [4]:
```
grade > 60
```

Out[4]: True

In [7]:
```
#  if and else
input_value = int(input(" Please input the value  : "))
if grade > input_value:
    print("Grade A")
else:
    print("Grade B")
```

```
Grade B
```

In [11]:
```
# if ,elif and else
input_value = int(input(" Please input the value  : "))
if grade > input_value:
    print("Grade A")
elif grade <= input_value:
    print("Grade C")
else:
    print("Grade B")
```

```
Grade C
```

In [15]:
```
##
score  = 90


if score >=90:
    print("Grade A++")
elif score >=80:
    print("Grade A")
elif score>=70:
    print("Grade B")
elif score >=60:
```

```
    print("Grade C")
else:
    print("Grade D")
```

```
Grade A++
```

In [17]:
```
score  = int(input(" Please pass the Input Value : "))

if score >=90:
    print("Grade A++")
elif score >=80:
    print("Grade A")
elif score>=70:
    print("Grade B")
elif score >=60:
    print("Grade C")
else:
    print("Grade D")
```

```
Grade A
```

In [18]:
```
username = "admin"
password = "12345"

if username == "admin" :
    print("Username is correct")

if password == "12345":
    print("Password is correct")
```

```
Username is correct
Password is correct
```

In [20]:
```
# multiple condition

if username == "admin" or password == "12345":
    print("Username and password are correct")
elif username == "admin1" or password == "123456":
    print("Username and password are incorrect")
else:
    if username == "admin2":
        print(username)
```

```
Username and password are correct
```

In [21]:
```
# nested condition

temp =  25
is_rain = False
wind= True

if temp > 20 :
    if is_rain == False:
        print("Rain started")
    else:
        print("not started")
else:
    print("no rain")
```

```
Rain started
```

Iterative/loop statement (for, while)

In [ ]:
```
Loops -- Iterate over sequences (string, list, tuple, sets, dictionaries)

Synatx :
for <variable> in iterable:
    <code block to execute>
```

In [22]:
```
words = "Hello Python"

for word in words:
    print(word)
```

```
H
e
l
l
o

P
y
t
h
o
n
```

In [23]:
```
numbers = [1,2,3,4,5,6,7,8]

for num in numbers:
    print(num)
```

```
1
2
3
4
5
6
7
8
```

In [ ]:
```
# for( i= 0; i <10; i++){
# }
```

In [26]:
```
for i in range(1,11):
    print(i)
```

```
1
2
3
4
5
6
7
8
9
10
```

In [39]:
```
for j in range(5):
    print(j)
    print("=" * 5)
    for m in range(j+1):
        print(m)
```

```
0
=====
0
1
=====
0
1
2
=====
0
1
2
3
=====
0
1
2
3
4
=====
0
1
2
3
4
```

In [ ]:
```
# while

1- initilization is must

2- Add incremental varible

# Synatx:
    while <condition> :
        <code block for execute>
```

In [40]:
```
count = 0 # initilization

while count < 10:
    count = count + 1 # incrementable variable
    print(count)
```

```
1
2
3
4
5
6
7
8
9
10
```

In [41]:
```
a =  10
while a > 1:
    a =  a -1
    print(a)
```

```
9
8
7
6
5
4
3
2
1
```

In [ ]:
```

```