Unit-2. Conditional Execution and Iterators.

1. Simple if.

```
1. if condition:
2.         Statement
3. or
4. if condition:
5.         Statement 1
6.         Statement 2
```

In [10]:
```
name=input("Enter Name.")
if name=="Arman":
    print("Hello Arman,Good Morning!")
print("How are you?")
```

```
Enter Name.Arman
Hello Arman,Good Morning!
How are you?
```

2. if-else.

```
1. if condition:
2.       Action 1
3.else:
4.       Action 2
```

In [13]:
```
name=input("Enter Name.")
if name=="Arman":
    print("Hello Arman,Good Morning!")
else:
    print("Hello Guest")
print("How are you?")
```

```
Enter Name.Jenil
Hello Guest
How are you?
```

3. if-elif-else.

```
1. if condition:
2.     Statement
3. elif:
4.     Statement
5.else:
6.     Statement
```

In [14]:
```
a=int(input("Enter number 1: "))
b=int(input("Enter number 2: "))
c=int(input("Enter number 3: "))

if a>b and a>c:
    print(a," is the greatest.")
elif b>a and b>c:
    print(b," is the greatest")
else:
    print(c," is the greatest")
```

```
Enter number 1: 1
Enter number 2: 25
Enter number 3: 3
25  is the greatest
```

4. Nested if.

In [15]:
```
x=41
if x>10:
    print("Above 10")
    if x>20:
        print("alse above 20")
```

```
    else:
        print("but not above 20")
```

```
Above 10
alse above 20
```

5. Itetative Statements.

1. for loop
2. while loop

5.1 For Loop.

```
1. for x in sequence:
2.      body
```

5.2 While loop.

```
1. while condition
2.       body.
```

In [16]:
```
s="Arman"
for i in s:
    print(i)
```

```
A
r
m
a
n
```

In [17]:
```
s="Arman"
for i in s:
    print(i,end="")
```

```
Arman
```

In [24]:
```
s=[1,2,3,4,5,6,74]
for i in range(7):
    print(s[i],end=" ")
```

```
1 2 3 4 5 6 74
```

In [23]:
```
for i in range(10,0,-1):
    print(i,end=" ")
```

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

In [27]:
```
x=1
while x<=5:
    print(x,end=" ")
    x+=1
```

```
1 2 3 4 5
```

5.3 Nested Loops.

In [31]:
```
for i in range(2):
    for j in range(2):
        print("i= ",i,"j= ",j)
```

```
i=  0 j=  0
i=  0 j=  1
i=  1 j=  0
i=  1 j=  1
```

6. Break Statements.

In [35]:
```
for i in range(10):
    if i==7:
        print("stop here!")
        break
    print(i,end=" ")
```

```
0 1 2 3 4 5 6 stop here!
```

7. Continue Statement.

In [34]:
```
for i in range(10):
    if i==7:
        print("skip here!")
        continue
    print(i,end=" ")
```

```
0 1 2 3 4 5 6 skip here!
8 9
```

8. Pass Statement.

In [38]:
```
for i in range(10):
    if i==7:
        pass
    print(i)
```

```
0
1
2
3
4
5
6
7
8
9
```

In [40]:
```
# WAP to find sum of n numbers
n=int(input("Enter num.: "))
sum=0
for i in range(1,n+1):
    sum+=i
print(sum)
```

```
Enter num.: 26
351
```

In [42]:
```
#WAP to check wether the given yera is leap year or not
n=int(input("Enter year.: "))
if (n % 400==0) and (n % 100== 0):
    print("Leap year")
elif (n % 4==0) and (n % 100!=0):
    print("leap year")
else:
    print("Not a leap Year.")
```

```
Enter year.: 2005
Not a leap Year.
```

In [47]:
```
#WAP to perform arithmetic operation.
a=int(input("Enter num 1.: "))
b=int(input("Enter num 2.: "))
c=input("Enter Symbol")

if c=="+":
    print("a + b is :",a+b)
elif c=="-":
     print("a - b is :",a-b)
```

```
elif c=="*":
     print("a * b is :",a*b)
elif c=="/":
     print("a / b is :",a/b)
elif c=="**":
     print("a ** b is :",a**b)
elif c=="//":
     print("a // b is :",a//b)
elif c=="%":
     print("a % b is :",a%b)
else:
    print("Plese enter a valid symbol")
```

```
Enter num 1.: 652
Enter num 2.: 556
Enter Symbol++
Plese enter a valid symbol
```

In [ ]:

```
#WAP to entre attendence in pr and print bonus marks 15% if the attendence is grater than 70%
tl=int(input("Enter total lecture.: "))
al=int(input("Enter attensenrt lecture"))
per=al/tl*100
marks=0
if per > 70:
    marks= marks + (per*15/100)
    print("bonud marks are. ",marks)
else:
    print("You are not aligiblr for bonud marks.")
```