

# Flow Control Statements in DMS & LPS

## What is flow control statement in programming?

Flow control statement is a statement which are used to control the flow of execution of program.

These flow control statements give you a lot of flexibility and control over the flow of execution in your programs.

## List all the flow control statements in python

- **if** - this statement execute the code if the conditions/decision making statements are true.
- **else** - this statement execute the code if the conditions/decision making statements inside the 'if' statement are false.
- **elif** - it allows to add additional conditions/decision making statements
- **for** - it is used to iterate a block of code for fixed number of times or until a certain conditions meet. It can iterates over a list, tuple, set, dict.
- **while** - it is used to looping a certain block of code until the conditions meet. it can loop infinite times.
- **break** - it is used to exit a loop (like **for loop** or **while loop**).
- **continue** - it is used to skip the current iteration and start the next iteration.
- **pass** - it is a placeholder used to do nothing, just for temporarily filling the empty code space.

## what is decision making statements?

Decision making statements are used to execute different blocks of code depending on whether a condition is true or false.

List of commonly used decision making statements.

- **if**
- **else**
- **elif**

```
# let see if else elif examples
x = 10
if x == 10:
    print("x is equal to 10")

x is equal to 10
# now with 'else'
if x > 10:
    print("x is greater than 10")
```

```

    print("x is greater than 10")
else:
    print("x is not greater than 10")

x is not greater than 10

# now with 'elif'

if x > 20:
    print("x is greater than 20")
elif x > 8:
    print("x is greater than 8")
else:
    print("x is not greater than 20 and also not greater than 8")

x is greater than 8

```

### For loop example 1

```

# for loop examples

listt = ["ford", "hundai", "bmw", "audi", "benz"]

for i in range(len(listt)):
    print("car name", i)

car name 0
car name 1
car name 2
car name 3
car name 4
for i in range(len(listt)):
    print("car name", listt[i])

car name ford
car name hundai
car name bmw
car name audi
car name benz

```

### for loop example 2

```

mul = 5

for i in range(1, 11):
    print(mul, "- multiply with ->", i, " = " , mul * i)

5 - multiply with -> 1 = 5
5 - multiply with -> 2 = 10
5 - multiply with -> 3 = 15
5 - multiply with -> 4 = 20
5 - multiply with -> 5 = 25
5 - multiply with -> 6 = 30
5 - multiply with -> 7 = 35
5 - multiply with -> 8 = 40
5 - multiply with -> 9 = 45
5 - multiply with -> 10 = 50
|

```

## While loop examples

```

# while loop examples

num = 0
while num <= 10:
    print("the number is", num)
    num += 1

the number is 0
the number is 1
the number is 2
the number is 3
the number is 4
the number is 5
the number is 6
the number is 7
the number is 8
the number is 9
the number is 10

name = "Softlogic"

timesOfPrint = 5

count = 0

while count < timesOfPrint:
    print("institute name", name)
    count += 1

institute name Softlogic
institute name Softlogic
institute name Softlogic
institute name Softlogic
institute name Softlogic

```

```
institute name Softlogic
```

## Break Statement Examples

```
# Break statement examples

numbers = [3, 5, 8, 4, 9, 6]

for num in numbers:
    if num % 2 == 0:
        print("first even number", num)
        break

first even number 8

# another

num = 0
while True:
    print(num)
    if num == 10:
        print("number reached 10, now breaking the loop...")
        break
    num += 1

0
1
2
3
4
5
6
7
8
9
10
number reached 10, now breaking the loop...
|
```

## Continue statement examples

```
# continue statement examples

for num in range(1,11):
    if num % 2 != 0:
        continue
    print("even number is -->", num)

even number is --> 2
even number is --> 4
even number is --> 6
even number is --> 8
```

```
even number is --> 10
```

```
# another continue example

num = 0
count = 0

while count < 5:
    num += 1
    if num == 7:
        continue
    print(num)
    count += 1

1
2
3
4
5
```

### Example of pass statement

```
# example of pass statement

def sampleFunc():
    pass

sampleFunc()
```