

Papers Dock

**PYTHON**

**9618**

**LOOPS**

# What are Loops ?



# TYPES OF LOOPS

1. Count Controlled Loop
2. Conditional Loop

# COUNT CONTROLLED LOOP

For loop is a count controlled loop which means it will automatically increment a variable and will run for fix amount of times

# SYNTAX OF FOR LOOP

```
for x in range(10):  
    print (x)
```

This loop will run 10 times

Note: Indentation is very important, the instructions which are to be executed inside the loop should be incremented

# PRACTICE QUESTION

Input 10 names from the user and  
print "Good Morning" with each name

Expected Output

Good Morning Taha

Good Morning Ahmed

```
for x in range(10):  
    name = input("Enter name:")  
    print("Good Morning" + " " + name)
```

# SUM TECHNIQUE

```
sum = 0
for x in range(10):
    number = float(input("Enter Number"))
    sum = sum + number
print (sum)
```



# PRACTICE QUESTION

**ask 5 numbers from the user and  
print the sum of those numbers**

```
sum = 0
for x in range(5):
    number = float(input("Enter the number: "))
    sum = sum + number
print(sum)
```

# LARGEST NUMBER TECHNIQUE

```
large = 0
for x in range(10):
    number = float(input("Enter
Number:"))
    if number > large:
        large = number
print(large)
```

# PRACTICE QUESTION

Input 5 number and print the largest number

```
large = 0
for x in range(5):
    number = float(input("Enter the number: "))
    if number > large:
        large = number
print(large)
```

# COUNTING TECHNIQUE

```
count = 0  
for x in range(5):  
    count = count + 1  
print (count)
```

# PRACTICE QUESTION

**Input 5 numbers from the user and  
print how many are positive numbers  
and how many are negative numbers**

```
positive = 0
negative = 0
for x in range(5):
    number = float(input("Enter the Number :"))
    if number > 0:
        positive = positive + 1
    elif number < 0:
        negative = negative + 1
print("There are", positive, " positive numbers")
print("There are", negative, "negative numbers")
```



# SMALLEST TECHNIQUE

```
small = 9999
for x in range(10):
    number = float(input("Enter Number"))
    if number < small :
        small = number
print(small)
```

# PRACTICE QUESTION

**Input 5 numbers and print the smallest**

```
small = 9999
for x in range(5):
    number = float(input("Enter the number: "))
    if number < small:
        small = number
print(small)
```

# CONDITIONAL LOOPS

While... Do .. Endwhile

Repeat ... Until

Loop will run until the condition will remain True

# Syntax Of While Loop

```
while condition:  
    print("Hello")
```

# Print Hello 10 times using While loop

```
x = 0
while x < 10:
    print("Hello")
    x = x + 1
```

# Practice Question

**Input 5 number and print the sum of those numbers using While Loop**

```
x = 0
sum = 0
while x < 5:
    number = float(input("Enter the number: "))
    sum = sum + number
    x = x + 1
```