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

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

SUM TECHNIQUE

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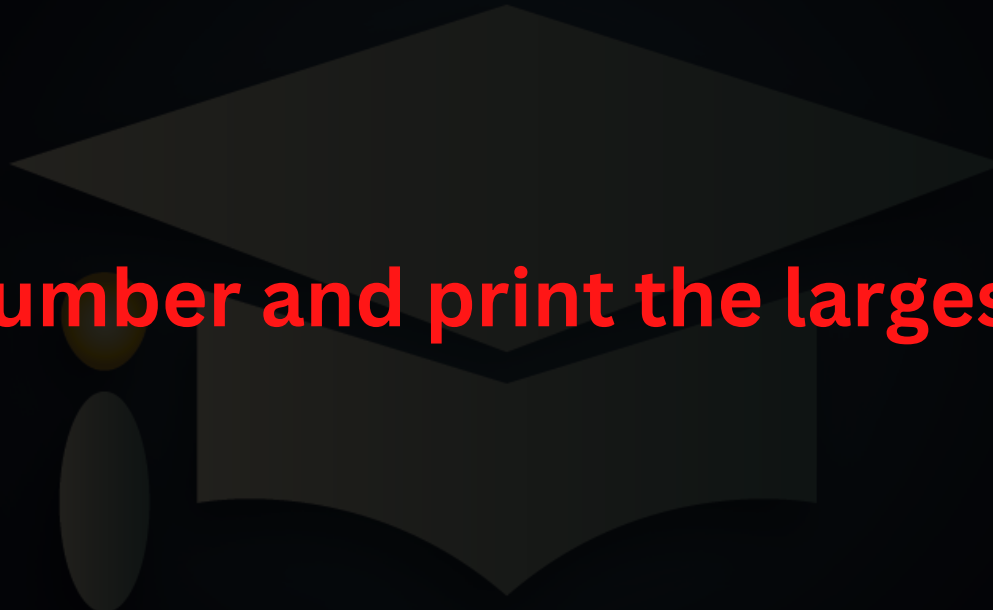
```python
sum = 0
for x in range(5):
    number = float(input("Enter the number: "))
    sum = sum + number
print(sum)
```

LARGEST NUMBER TECHNIQUE

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

PRACITCE QUESTION

Input 5 number and print the largest number

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

COUNTING TECHNIQUE

```python
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

```python
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

```python
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

```python
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

```python
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

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