

LOOPS and Iteration.

- They are used in any and every programming language.
- The main purpose of loops are that they help us avoid repetitions.
- I have a class

Ali	70	100
X	80	
Y	75	
Z	79	

Q. Write a program such that it takes input 4 students mark and finds their avg.

```
DECLARE classAvg: REAL
```

```
DECLARE st1: INTEGER
```

```
DECLARE st2: INTEGER
```

```
DECLARE st3: INTEGER
```

```
DECLARE sum: INTEGER
```

```
INPUT st1
```

```
    " st2
```

```
    " st3
```

```
    " st4
```

```
sum ← st1 + st2 + st3 + st4
```

```
Class_Avg ← sum / 4
```

```
OUTPUT classAvg.
```

- Here is where loops come in
- increment was ten

FOR (i) in range 1: 10,000

range

DECLARE st1

INPUT student

Q Print First 10 numbers.

OUTPUT 1

10,000

11

2

11

3

10,001

counter starting

FOR (i) in range (1: 10,000 X

OUTPUT i

ending point.

$i \leftarrow i + 1$

1 2 3 4 5 6

1

2

10,000

1. -- 10,000

3

10,001

4

5

Print first 6 number
Manual Loops

OUTPUT 1
OUTPUT 2
OUTPUT 3
OUTPUT 4
OUTPUT 5
OUTPUT 6

~~For i in range 1:6~~
~~OUTPUT i~~
~~i = i + 1~~
~~1 2 3 4 5 6~~
~~7~~

Q Print the table of 5 till 10 using
FOR Loop

→ 5 - 40
→ 10 - 45
→ 15 - 50
→ 20
→ 25
→ 30
→ 35

→ loops