

C Language

Chapter # 12

Loop Constructs

Lecture: 41

Today's Lecture

- ▶ for Loop and its working with example.

for loop:

- ▶ This loop executes one or more statements for a specified number of times.
- ▶ This loop is also called counter controlled loop.
- ▶ It is the most flexible loop. That is why the most programmers used this loop.

Working of for loop

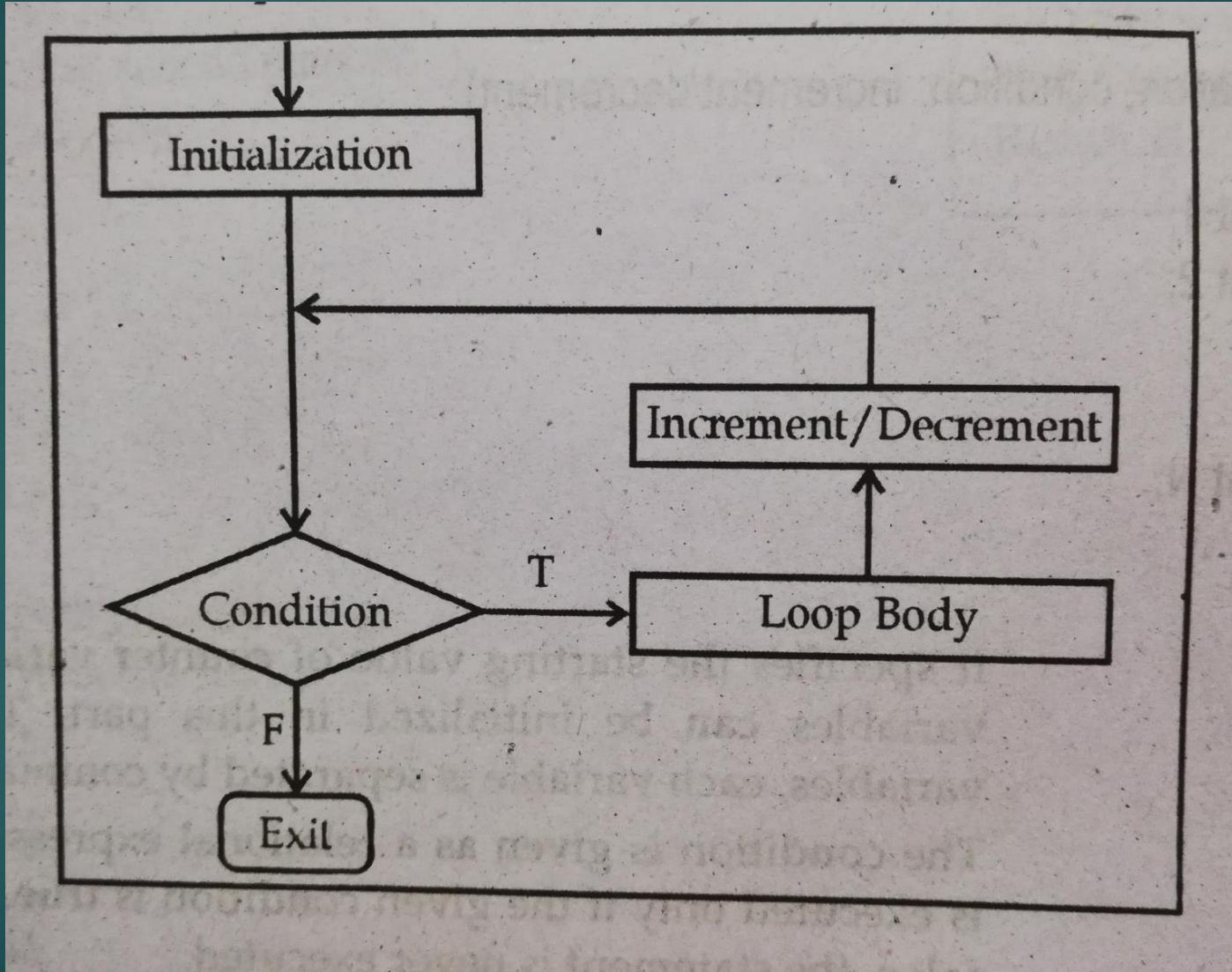
- ▶ The number of iterations depends on the initialization, condition and increment/decrement part.
- ▶ The initialization part is executed only once when the control enters the loop.
- ▶ After initialization, condition is evaluated.
- ▶ If the condition is true, the control enters in the body of the loop and executes all statements in it.
- ▶ Then the increment/decrement part is executed that changes the value of counter variable.
- ▶ The control again moves to condition part.
- ▶ This process continues while the condition remains true.
- ▶ The loop is terminated when the condition becomes false.

for loop

Syntax:

```
for(initialization; condition; Increment/Decrement)
{
    Statement 1;
    Statement 2;
    Statement 3;
}
```

Flowchart (for loop)



Example

Write a program that displays Pakistan five times using for loop.

```
#include <stdio.h>
#include<conio.h>
main()
{
    int n;
    for(n = 1; n<=5; n++)
    {
        printf("Pakistan\n");
    }
}
```



The End

Read this topic from your books and ask question if any confusion.

JAZAKALLAH