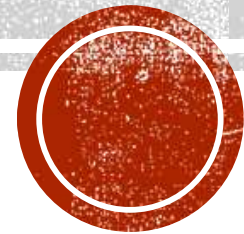


REPETITION OR LOOP CONTROL STRUCTURE



FLOW OF CONTROL

- Till now ,we have written all the programs in which the flow of control is sequential i.e one after the other or selective i.e depending upon the result of the condition , a block of statements get executed .
- But there is a limitation that we can, t repeat a group of Statements a fixed number of times or a variable number of times.
- but in most of the situations , we are to repeat a statments or a group of statements many times . In these situations , perhaps rhe most useful construct is the loop.



COUNTERS

- One method of controlling a loop is to create a special variable to keep track of the number of times the loop has to be executed .
- this special variable is known as a counter .
- The counter is increased by a fixed amount each time the loop is executed .
- If it is known in advance , how many times the Loop has to be repeated the counter has to be tested by if else statement after each loop execution to repeat it proper number of times .
- The counter is known as a loop control variable .



LOOPS IN C

- There are three types of loops in c .there are :
 1. While loop
 2. For loop
 3. Do while loop



THE WHILE LOOP

- *It is the fundamental repetitive control structure used in C.*
- *while loop is suited for the problems where it is not known in advance that how many times a statement or a set of statements i.e. statement block will be executed.*
- *The general form of this construct is given below.*

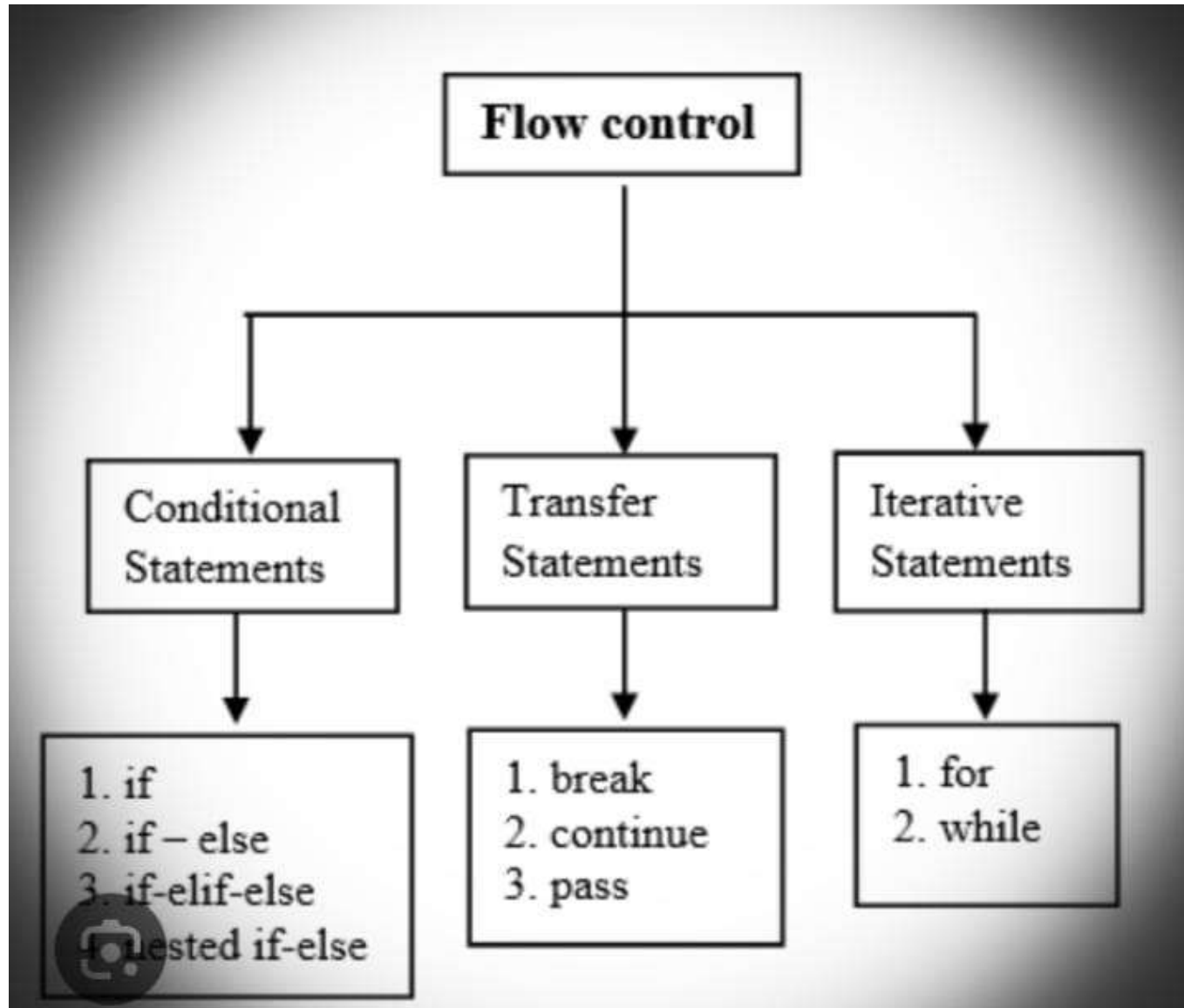
While (condition)

statement - block



- The sequence of operations in a while loop is as follows :
 1. Test the condition .
 2. If the condition is true then execute the statement block and repeat step 1
 3. If the condition is false , leave the loop and go on with the rest of the program.





DEMONSTRATE IF WHILE LOOP . PROGRAM TO DISPLAY THE CONSECUTIVE DIGITS FROM 0 TO N.

```
/* to display digits from 0 to n */  
  
#include <stdio.h>  
  
#include <conio.h>  
  
Void main ()  
  
[  
  
    Int n, digit =0;  
  
    Clrscr ();  
  
    Printf ( "\n enter last digit ");  
  
    scanf ("%d", &n);  
  
    While (digit <=n)  
  
    [  
  
        Printf ("%d/", digit);  
  
        Digit ++;  
  
    ]  
  
    Getch ();  
  
]
```



