C_37 → While loops in c (Part 1)

* while loop and for loop is same; but syntax is different.

* Both while and for are entry controlled loop.

while loop syntax :-

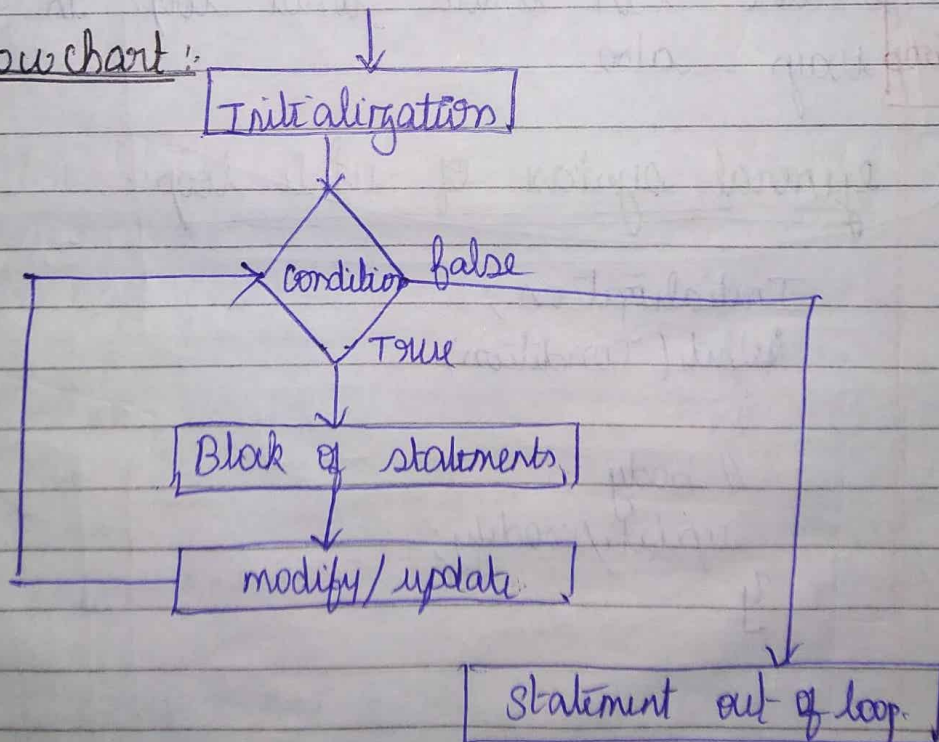|	

Initialization;
 while (condition)
 ₹
    // Body of loop
 ₹
	Initialization:
	 while (condition)
	 ₹
	    statement 1;
	    ; statement n;
	 ₹ modify / update;

* Here also it requires Initialization, conditio and update expression.

Flow chart :

Initialization

condition — false

True

Block of statements

modify / update

Statement out of loop.

Program 1

* Print natural numbers from 1 to 10.

```
void main()
{
    int i=1;
    while (i <= 20)
    {
        printf (" %d\n", i);
        i++;
    }
    getch();
}
```

printf ("Natural nos from 1-20:");

Output:-

Natural nos from 1-20:
1
2
3
4
5
:
:
20

CODE 1:

```
1    #include <stdio.h>
2    #include <stdlib.h>
3    /* 1 - while loop - To print natural numbers */
4    int main()
5    {
6        int i=1;
7        printf("Natural numbers from 1-20:\n");
8        while(i<=20)
9        {
10         printf("%d\n",i);
11         i++;
12        }
13    getch();
14    }
15
```

```
Natural numbers from 1-20:
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
```