LOOPING (REPEAT) STATEMENTS

while():-

syntax

while (condition)

{ // TRUE

statements;

INCREMENT AND DECREMENT OPERATOR

++ --

i = i + 1-----i++

i = i - 1 -----i

AIRTHMATIC ASSIGNMENT OPERATOR

$$i = i + 2 - - - i + = 2;$$

1. WAP FOR PRINT WELCOME 10 TIMES

```
#include<stdio.h>
 int
     main()
 {
          int i = 1;
          while( i <= 10 )
               printf(" WELCOME \n ");
               i++;
 }
trace:-
                  condi. print
          i = 1 1 <= 10 welcome
          i = 2  2 \le 10
          i = 10 10 \le 10 welcome
          i = 11  11 \le 10 X
```

```
2. FIND OUTPUT
```

program terminate:-

- 1. ctrl + break
- 2. alt + ctrl + del
- 3. WINDOW KEY

```
2
// WAP FOR PRINT 1 TO 10 NOS
#include<stdio.h>
 int main()
         int i = 1;
         while (i \le 10)
              printf(" %d\n",i);
              i++;
         }
    trace:-
                          print
                   condi.
             i = 1  1 <= 10 1
             i = 2  2 \le 10  2
```

```
i = 10  10 \le 10  10
i = 11  11 \le 10 X
```

// 3. WAP FOR PRINT ODD NOS

```
#include<stdio.h>
int main()
{
    int i = 1;
    printf(" ODD NOS \n ");
    while( i <= 10 )
    {
        printf("%d\n",i);
        i+=2;
    }
}</pre>
```

CONDI. PRINT

$$i = 1$$
 $1 \le 10$ 1

$$i = 3$$
 $3 \le 10$ 3

i = 11 11 <= 10 X

1. printf(" i\n "); X

i

i

•

.

I

2. printf(" 1 to 10 \n "); X

1 to 10

1 to 10

•

•

10 times

4. WAP FOR PRINT 1 EVEN NOS

```
#include<stdio.h>
 int
     main()
  {
          int i = 2;
          while (i \le 10)
          {
                   printf("%d\t",i);
                   i+=2;
           }
                    CONDI. PRINT
           i = 1 1 <= 10 1
           i = 2  2 \le 10 2
           i = 10 \quad 10 \le 10 \quad 10
           i = 11  11 \le 10 X
```

5. WAP FOR PRINT 10 TO 1.

```
#include<stdio.h>
 int main()
  {
          int i = 10;
          while (i \ge 1)
                  printf(" %d\n",i);
                   i--;
                   CONDI. PRINT
           i = 10 \quad 10 >= 1
           i = 9  9 >= 1 \checkmark 9
           i = 0 0 >= 1 X
```

```
WAP FOR PRINT NOS B/W i TO n.
#include<stdio.h>
      main()
 int
  {
          int i, n;
          printf("ENTER i and n.\n");
          scanf("%d%d",&i,&n);
          while (i \le n)
          {
              printf(" %d\t",i);
              i++;
 }
```

7. WAP FOR PRINT NOS B/W n TO i.

```
#include<stdio.h>
      main()
 int
  {
           int i,n;
           printf("ENTER N AND I\n");
           scanf("%d%d",&n,&i);
           while (n \ge i)
           {
               printf("%d\t",n);
               n--;
           }
 }
```

<u>do - while()</u> :syntax do statements; } while (condition); **while** do-while 1. CHECK CONDITION 1. ONE TIME EXECUTE 2. CHECK CONDITION 2. EXECUTION 3. ENTRY CONTROL LOOP 3. EXIT CONTROL LOOP

```
// PRINT 1 TO 10 NOS USING DO-WHILE LOOP
#include<stdio.h>
int main()
{
    int i = 1;
    do
    {
        printf(" %d\n",i);
        i++;
    } while(i <= 10);
}</pre>
```

i = 10 $10 \le 10$ 10 i = 11 $11 \le 10$ X