05/07/2020

Ex1) Print 1 to 5

```
#include<stdio.h>
void main(){
    for(int i=1; i<=5; i++){
        printf("%d\n", i);
    }
}
```

Dry Run:

variables	conditions	o/p	incre/decre
i	i<=5	i	i++
1	1<=5	1	1+1=2
2	2<=5	2	2+1=3
3	3<=5	3	3+1=4
4	4<=5	4	4+1=5
5	5<=5	5	5+1=6
6	6<=5 X		

Ex:2) print 5 to 1

```
#include<stdio.h>
void main () {

        for (int i=5 ; i>=1 ; i--) {
            printf("%d\n", i);
        }
}
```

Dry Run:

Variables	conditions	output	decrement
i	i>=1	i	i--
5	5>=1	5	5-1=4
4	4>=1	4	4-1=3
3	3>=1	3	3-1=2
2	2>=1	2	2-1=1
1	1>=1	1	1-1=0
0	0>=1 X		

Ex3) Print 1 to 10 odd or even Nos.

```
#include<stdio.h>
void main () {
        for (int i=1 ; i<=10 ; i++) {
            if (i%.2 ==0) {
                printf(" %d is even", i);
            } else {
                printf (" %d is odd", i);
            }
        }
}
```

Dry Run :

Variables	Conditions		O/P	Increment
i	i<=10	i%.2==0	i	i++
1	1<=10	1%.2 != 0	1 is odd	1+1=2
2	2<=10	2%.2==0	2 is even	2+1=3
3	3<=10	3%.2 != 0	3 is odd	3+1=4
4	4<=10	4%.2==0	4 is even	4+1=5
5	5<=10	5%.2 != 0	5 is odd	5+1=6
6	6<=10	6%.2==0	6 is even	6+1=7
7	7<=10	7%.2 != 0	7 is odd	7+1=8
8	8<=10	8%.2==0	8 is even	8+1=9
9	9<=10	9%.2 != 0	9 is odd	9+1=10
10	10<=10	10%.2==0	10 is even	10+1=11
11	11<=11	X		

Ex 4) print 2's table

```
#include<stdio.h>
void main(){
    for(int j = 1 ; j<=10 ; j++){
        printf("%d\n", 2*j);
    }
}
```

variables	condition	O/P	Increment
j	j<=10	2*j.	j++
1	1<=10	2*1 = 2	1+1=2
2	2<=10	2*2 = 4	2+1=3
3	3<=10	2*3 = 6	3+1=4
4	4<=10	2*4 = 8	4+1=5
5	5<=10	2*5 = 10	5+1=6
6	6<=10	2*6 = 12	6+1=7
7	7<=10	2*7 = 14	7+1=8
8	8<=10	2*8 = 16	8+1=9
9	9<=10	2*9 = 18	9+1=10
10	10<=10	2*10 = 20	10+1=11
11	11<=10 X		

Ex5) sum of 1st 10 Nos.

```
#include<stdio.h>
void main(){
        int sum=0;
        for(int i=1; i<=10; i++){
            sum=sum+i;
        } printf("sum=%d\n", sum);
}
```

variables		condition	statements	o/p	increment
i	sum	i<=10	sum=sum+i	sum	i++
1	0	1<=10	0 = 0+1=1		1+1
2	1	2<=10	1 = 1+2=3		2+1
3	3	3<=10	2 = 3+3=6		3+1
4	6	4<=10	6 = 6+4=10		4+1
5	10	5<=10	10 = 10+5=15		5+1
6	15	6<=10	15 = 15+6=21		6+1
7	21	7<=10	21 = 21+7=28		7+1=8
8	28	8<=10	28 = 28+8=36		8+1=9
9	36	9<=10	36 = 36+9=45		9+1=10
10	45	10<=10	45 = 45+10=55		10+1=11
11	55	11<=10 X			

sum = 55

Ex6) print Nos 1 to N

```
#include <stdio.h>
void main ( ) {
        int n;
        printf (" Enter a ~~no~~ ending No:\n");
        scanf ("%d", &n);

        for( int i=1 ; i<=n ; i++ ){
                print ("%d\n", i);
        }
    }
```

- Enter ending No
- 20

variable i	condition i<=n	o/p i	increment i++
1	1<=20	1	1+1 =2
2	2<=20	2	2+1 =3
3	3<=20	3	3+1 =4
4	4<=20	4	4+1 =5
5	5<=20	5	5+1 =6
6	6<=20	6	6+1 =7
7	7<=20	7	7+1 =8
8	8<=20	8	8+1 =9
9	9<=20	9	9+1 =10
10	10<=20	10	10+1 =11
11	11<=20	11	11+1 =12
12	12<=20	12	12+1 =13
:	:	:	
20	20<=20	20	20+1 =21
21	21<=20 X		