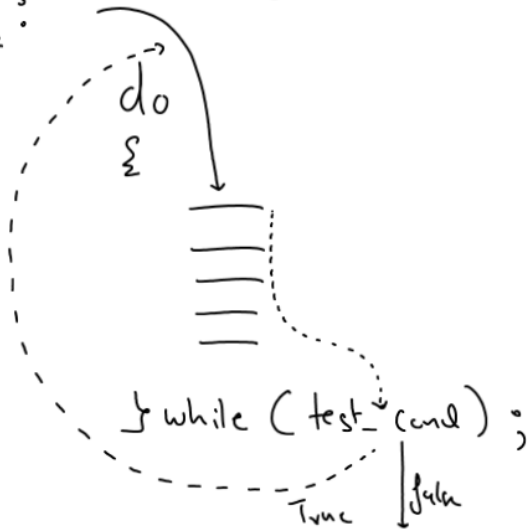


# Using The do-while loop

Syntax:



```

int main()
{
    int i;
    i = 1;
    while (i <= 10)
    {
        printf("%d\n", i);
        i++;
    }
    return 0;
}
    
```

O/p  
1  
2  
.  
.  
10

```

int main()
{
    int i;
    i = 1;
    do
    {
        printf("%d\n", i);
        i++;
    } while (i <= 10);
    return 0;
}
    
```

O/p  
1  
2  
.  
.  
10

```

int main()
{
    int i;
    i = 11;
    while (i <= 10)
    {
        printf("%d", i);
        i++;
    }
    return 0;
}

```

o/p  
No output

```

int main()
{
    int i;
    i = 11;
    do
    {
        printf("%d", i);
        i++;
    } while (i <= 10);
    return 0;
}

```

o/p  
11

```

while (test_cond)
{
    _
    _
    _
    _
}

```

Entry controlled loop

```

do
{
    _
    _
    _
    _
} while (test_cond);

```

Exit controlled loop!

WAP to ask the user to input 2 integers and display their sum. Now again ask the user if he wants to continue. If the answer is 'Y' then repeat the process otherwise terminate the program.

SAMPLE OUTPUT:

=====

Enter 2 integers:

10 20

Sum is 30

Do you want to continue (Y/N)?

Y

Enter 2 integers:

5 7

Sum is 12

Do you want to continue (Y/N)?

N

Thank you for using the app!

```
#include <stdio.h>
int main()
{
    int a,b;
    char choice;
    do
    {
        printf("Enter 2 integers:\n");
        scanf("%d %d",&a,&b);
        printf("Sum is %d",a+b);
        printf("\nDo you want to repeat(Y/N)?");
        fflush(stdin);
        scanf("%c",&choice);
    }while(choice=='Y');
    printf("Thank you for using the app!");
    return 0;
}
```

```

#include <stdio.h>
int main()
{
    int a,b;
    char choice;
    choice='Y';
    while(choice=='Y')
    {
        printf("Enter 2 integers:\n");
        scanf("%d %d",&a,&b);
        printf("Sum is %d",a+b);
        printf("\nDo you want to repeat(Y/N)?");
        fflush(stdin);
        scanf("%c",&choice);
    }
    printf("Thank you for using the app!");
    return 0;
}

```

WAP to accept an integer from the user and calc and print its FACTORIAL. Make sure that if the user inputs 0 , your code should display 1.

```

int main()
{
    int n,fact=1;
    printf("Enter an int:");
    scanf("%d",&n);
    while(n>1)
    {
        fact=fact * n;
        n--;
    }
    printf("Fact is %d",fact);
    return 0;
}

```

$$n = 5, \text{ fact} = 1$$

$$a. \text{ fact} = 1 \times 5 \Rightarrow 5$$

$$b. \text{ fact} = 5 \times 4 \Rightarrow 20$$

$$c. \text{ fact} = 20 \times 3 \Rightarrow 60$$

$$d. \text{ fact} = 60 \times 2 \Rightarrow 120$$

120

```

int main()
{
    int n, fact=1;
    printf("Enter an int:");
    scanf("%d", &n);
    if(n>0)
    {
        do
        {
            fact=fact * n;
            n--;
        }while(n>1);
    }
    printf("Fact is %d", fact);
    return 0;
}

```

$$n = 5, \text{ fact} = 1$$

$$a. \text{ fact} = 1 \times 5 \Rightarrow 5$$

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