

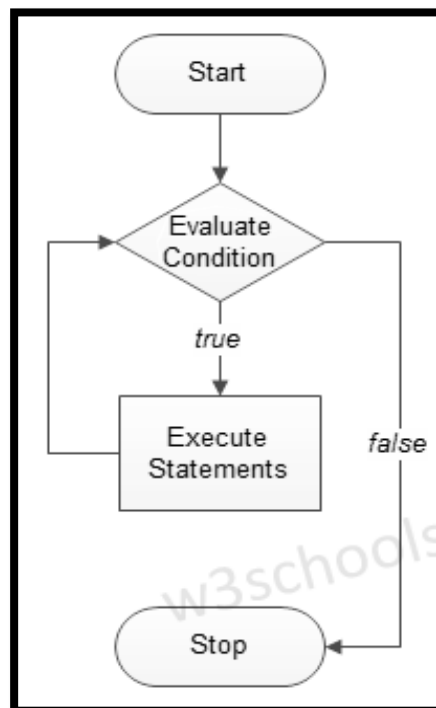
# C++ Notes – BCA – 3<sup>rd</sup> Semester – 09112020

- **Loop** - In computer science, a loop is a programming structure that repeats a sequence of instructions until a specific condition is met.
- **While Loop** -
  - C++ while loops statement allows to repeatedly run the same block of code until a condition is met.
  - while loop is a most basic loop in C++. while loop has one control condition, and executes as long the condition is true.
  - The condition of the loop is tested before the body of the loop is executed; hence it is called an entry-controlled loop.

- **Syntax –**

```
while (condition)  
{  
    statement(s);  
    Incrementation;  
}
```

- **Flowchart –**



- Example –

**/\* WAP to print the series upto 10 terms \*/**

```
#include<iostream.h>
#include<conio.h>
void main()
{
    int i=1;
    while(i<=10)
    {
        cout << "\t"<<i;
        i++;
    }
}
```

**/\* WAP to print the sum of series upto 10 \*/**

```
#include<iostream.h>
#include<conio.h>

void main()
{
    int i=0,sum=0;

    while(i<=10)
    {
        sum = sum + i;
        i++;
    }
    cout<<"\nSum is: "<<sum;
}
```

```
/* WAP to find the factors of a number */
```

```
#include<iostream.h>
```

```
#include<conio.h>
```

```
void main()
```

```
{
```

```
    int i,n;
```

```
    cout<<"Enter the number: ";
```

```
    cin>>n;
```

```
    i = 1;
```

```
    while(i <= n)
```

```
    {
```

```
        if(n % i == 0)
```

```
        {
```

```
            cout<<i<<" ";
```

```
        }
```

```
        i++;
```

```
    }
```

```
}
```

```
/* WAP to count the factors of a number */
```

```
#include<iostream.h>
```

```
#include<conio.h>
```

```
void main()
```

```
{
```

```
    int i,n,c;
```

```
    cout<<"Enter the number: ";
```

```
    cin>>n;
```

```
    i = 1;
```

```
c = 0;

while(i <= n)
{
    if(n % i == 0)
    {
        c++;
    }
    i++;
}
cout<<"Count of the factors are: "<<c;
}
```

**/\* WAP to check a number is Prime or not \*/**

```
#include<iostream.h>
```

```
#include<conio.h>
```

```
void main()
```

```
{
```

```
    int i,n,c;
```

```
    cout<<"Enter the number: ";
```

```
    cin>>n;
```

```
    i = 1;
```

```
    c = 0;
```

```
    while(i <= n)
```

```
    {
```

```
        if(n % i == 0)
```

```
        {
```

```
            c++;
```

```
        }
```

```
        i++;
```

```
    }  
  
    if(c == 2)  
    {  
        cout<<"Prime Number";  
    }  
    else  
    {  
        cout<<"Composite Number";  
    }  
}
```