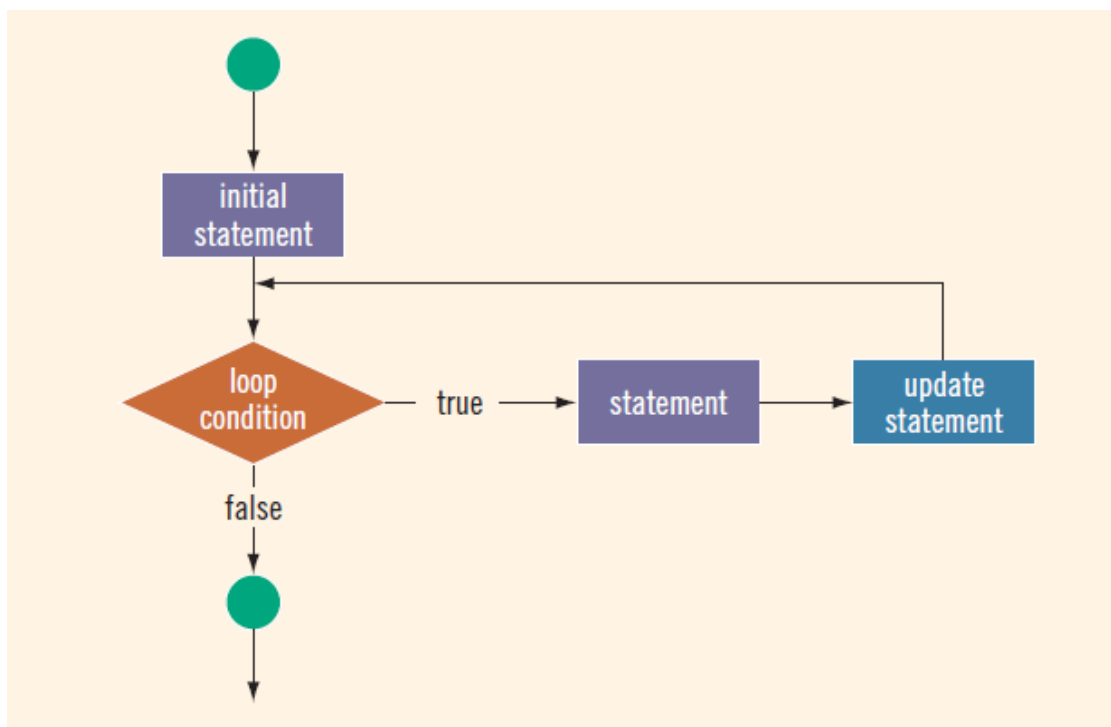


For loop (Repetition) Structure

The general form of the `for` statement is:

```
for (initial statement; loop condition; update statement)
{
    Statement;
}
```

The initial statement, loop condition, and update statement (called `for` loop control statements) enclosed within the parentheses control the body (statement) of the `for` statement.



For Example

```
for (int i = 0; i < 10; i++)
{
    cout << i << " ";
}
```

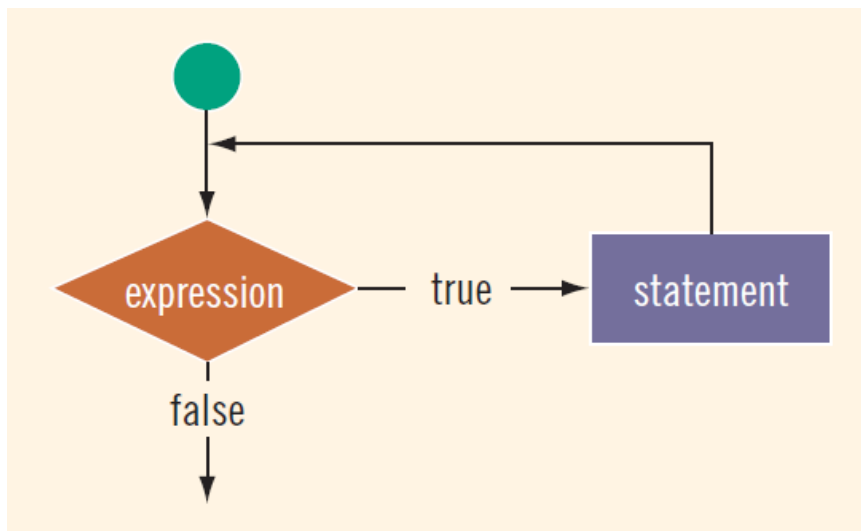
Sample Run:

0 1 2 3 4 5 6 7 8 9

While Loop (Repetition) Structure

The general form of the `while` statement is:

```
while (expression)
{
    Statement;
}
```



Consider the following C++ program segment: (Assume that `i` is an `int` variable.)

For Example

`i = 0; //Line 1`

`while (i <= 20) //Line 2`

`{`

`cout << i << " "; //Line 3`

`i = i + 5; //Line 4`

`}`

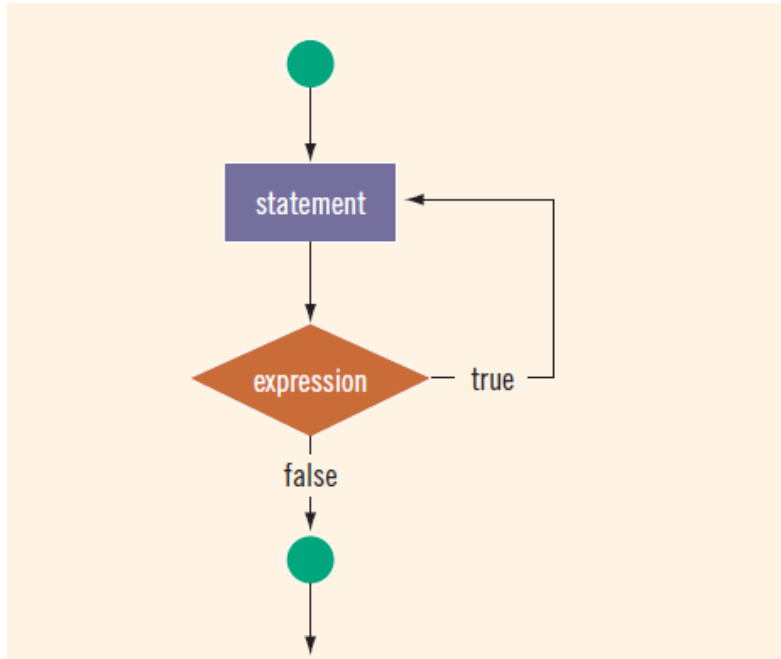
Sample Run:

0 5 10 15 20

Do-While Loop (Repetition) Structure

The general form of a `do. . .while` statement is as follows:

```
do  
{  
Statement;  
}while (expression);
```



For Example

```
int i = 25; //Line 1  
do //Line 2  
{  
cout << i << " "; //Line 3  
i = i + 5; //Line 4  
}  
while (i <= 20) ; //Line 4
```

Sample Run:

25