

Hello CPPBuddy !!

DAY-09

C++ COMPLETE BOOTCAMP



WELCOME MEMBERS

C++
**Complete
Bootcamp**

YOUR GUIDE TO PROGRAMMING

In association with

Inspire Club, MANIT BHOPAL



Hello CPPBuddies

Day 09

Welcome
To
C++ COMPLETE BOOTCAMP

Your Guide To A Solid Foundataion in C++

Let us begin

RECAP

for loops

for is a keyword; so do not use this name as identifier

Program No. 1

Take integer **n** as input from user.
Then find whether **n** is prime or not.

Program No. 2

Take integer **n** as input from user.
Then find all factors of n.

While loops

while is a keyword; so do not use this name as identifier

for loop we have seen that the number of iterations is known **beforehand**, i.e. the number of times the loop body is needed to be executed is known to us.

while loops are used in situations where we do not know the exact number of iterations of loop beforehand.

The loop execution is **terminated** on the basis of **test condition**.

Syntax:

We have already stated that a loop is mainly consisted of three statements –
initialization expression, test expression, update expression.

The syntax of the three loops –

for, while and do while

mainly differs on the placement of these three statements.

initialization expression;

while (test_expression)

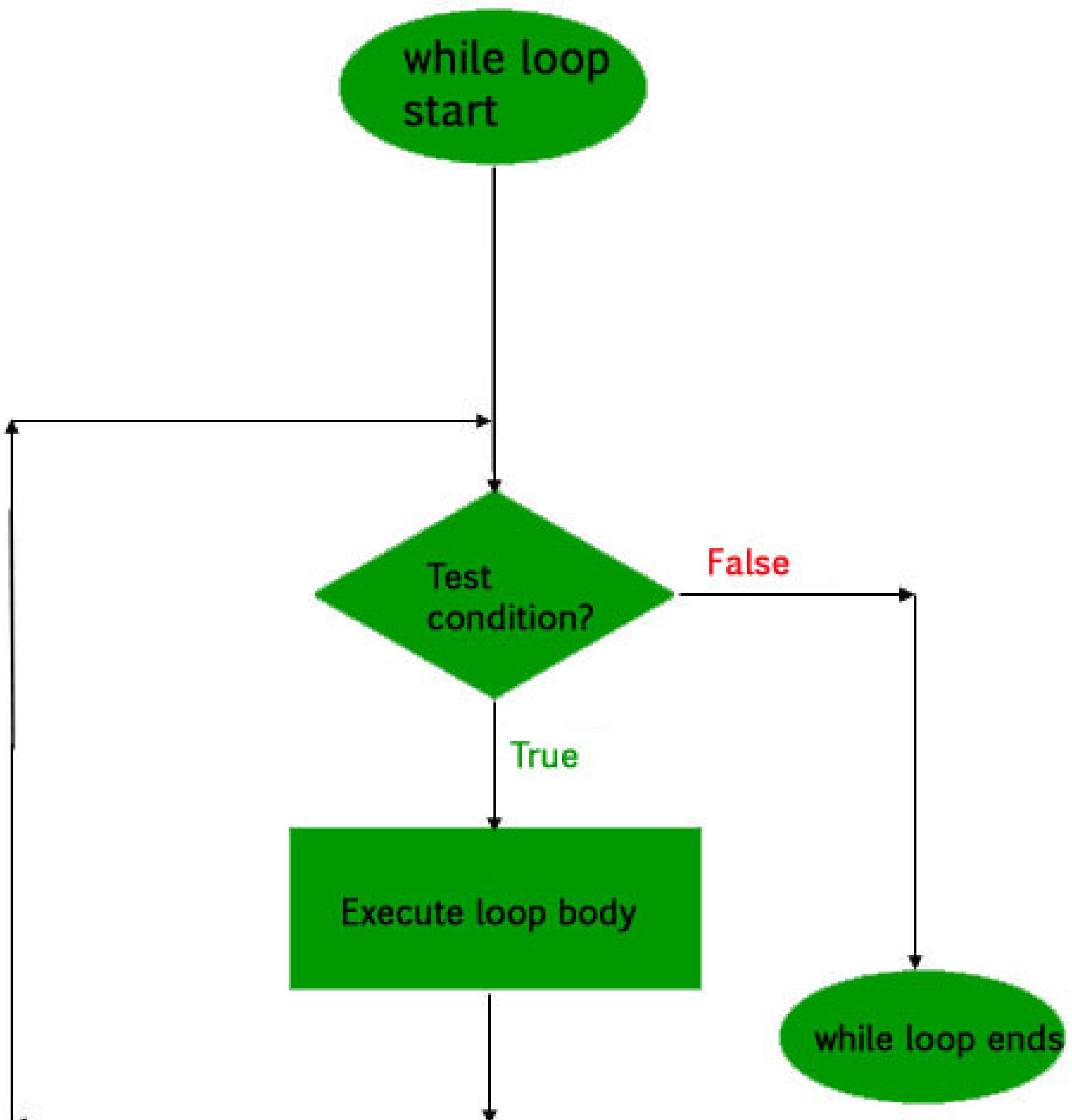
{

// statements

update_expression;

}

Flowchart



QUESTIONS

Do we really need while loops ?

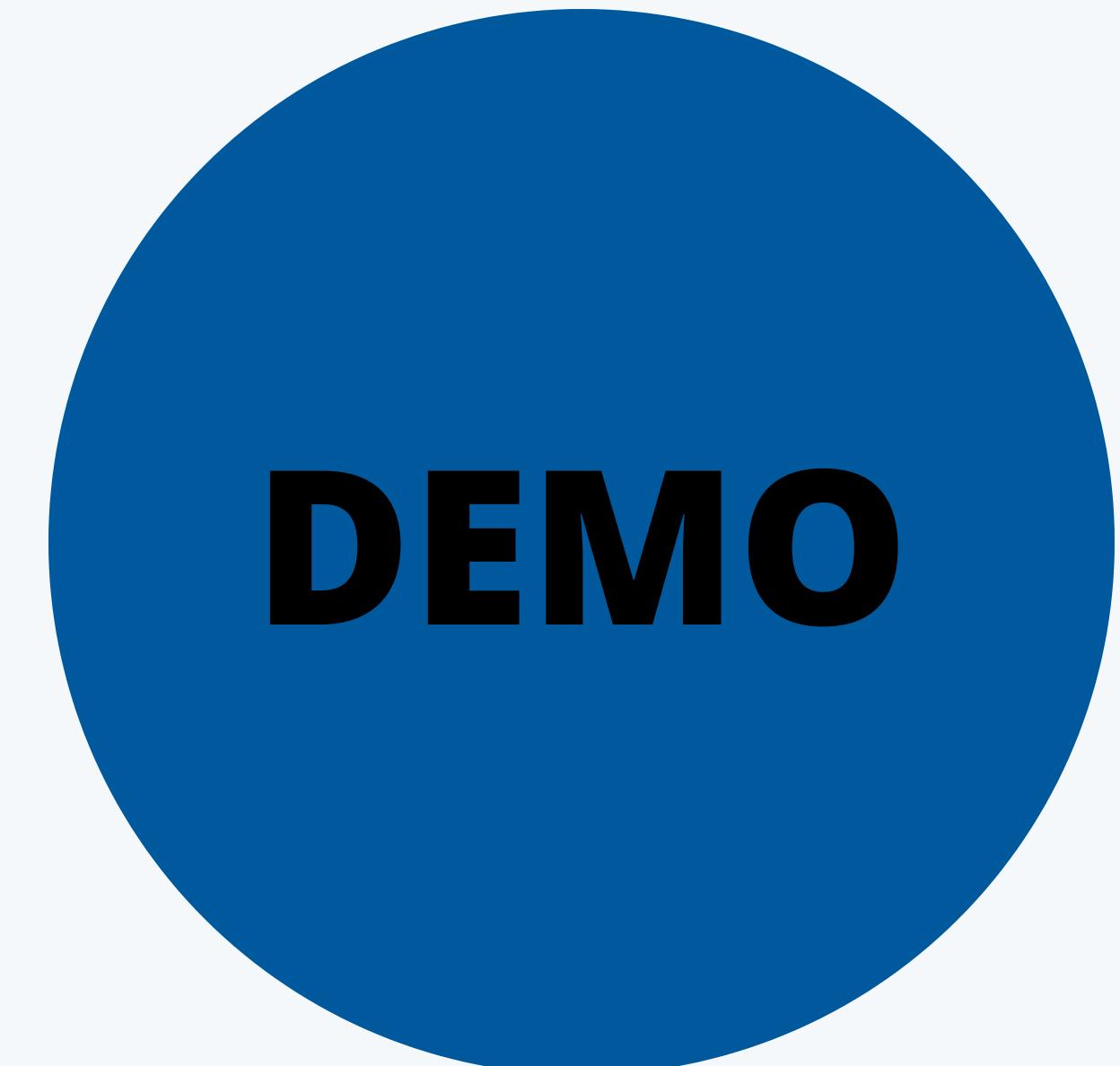
Are **for loops** not sufficient ?

Is **while loop** more powerful than **for loop**.

How to know which one to use when ?

Example program for **while** loop in C++

**Q1- Write a
program to show
the mechanism
of a **while** loop.**



DEMO

Program No. 4

Take integer **n** as input from user.
Then find whether **n** is prime or not.

Program No. 5

Take integer **n** and **k** as input from user.
Then print table of **n** till **k**

do while

do and **while** both are keywords; so do not use this name as identifier

oops

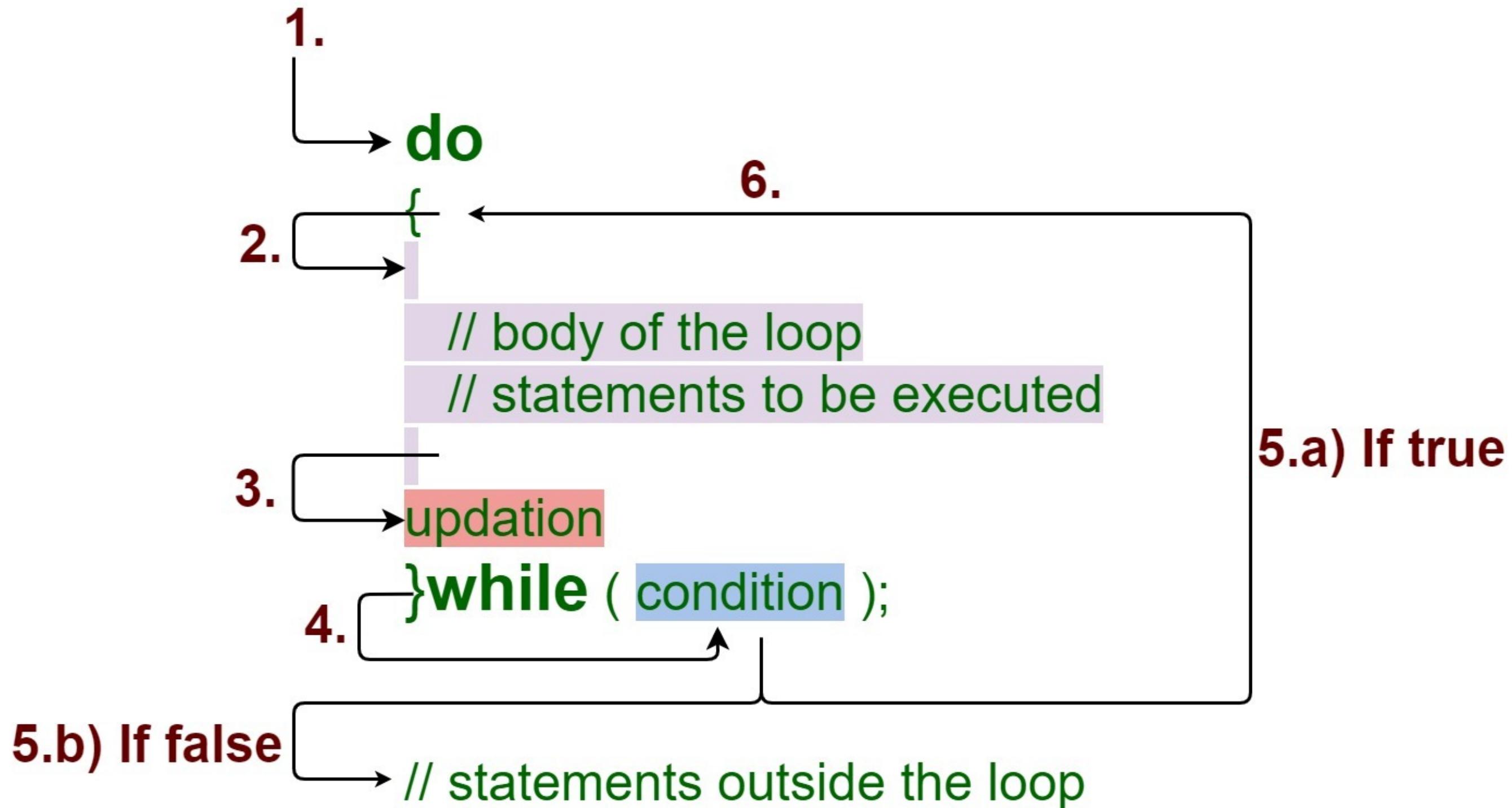
C++ Do-While Loop

The **C++ do-while loop** is used to iterate a part of the program several times.

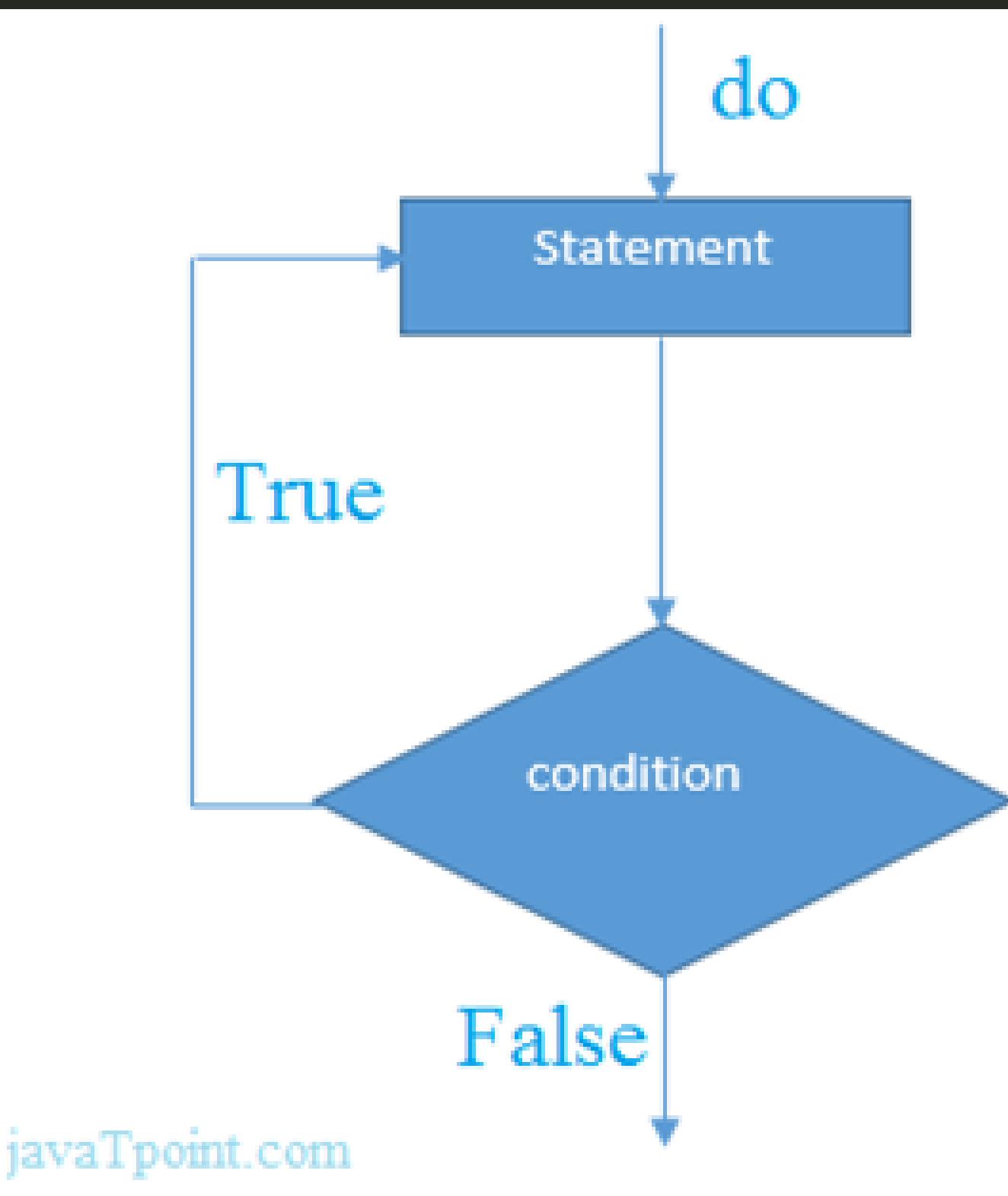
If the number of iteration is **not fixed** and you must have to **execute the loop at least once**, it is recommended to use **do-while loop**.

The **C++ do-while loop is executed at least once** because condition is checked after loop body.

Do - While Loop

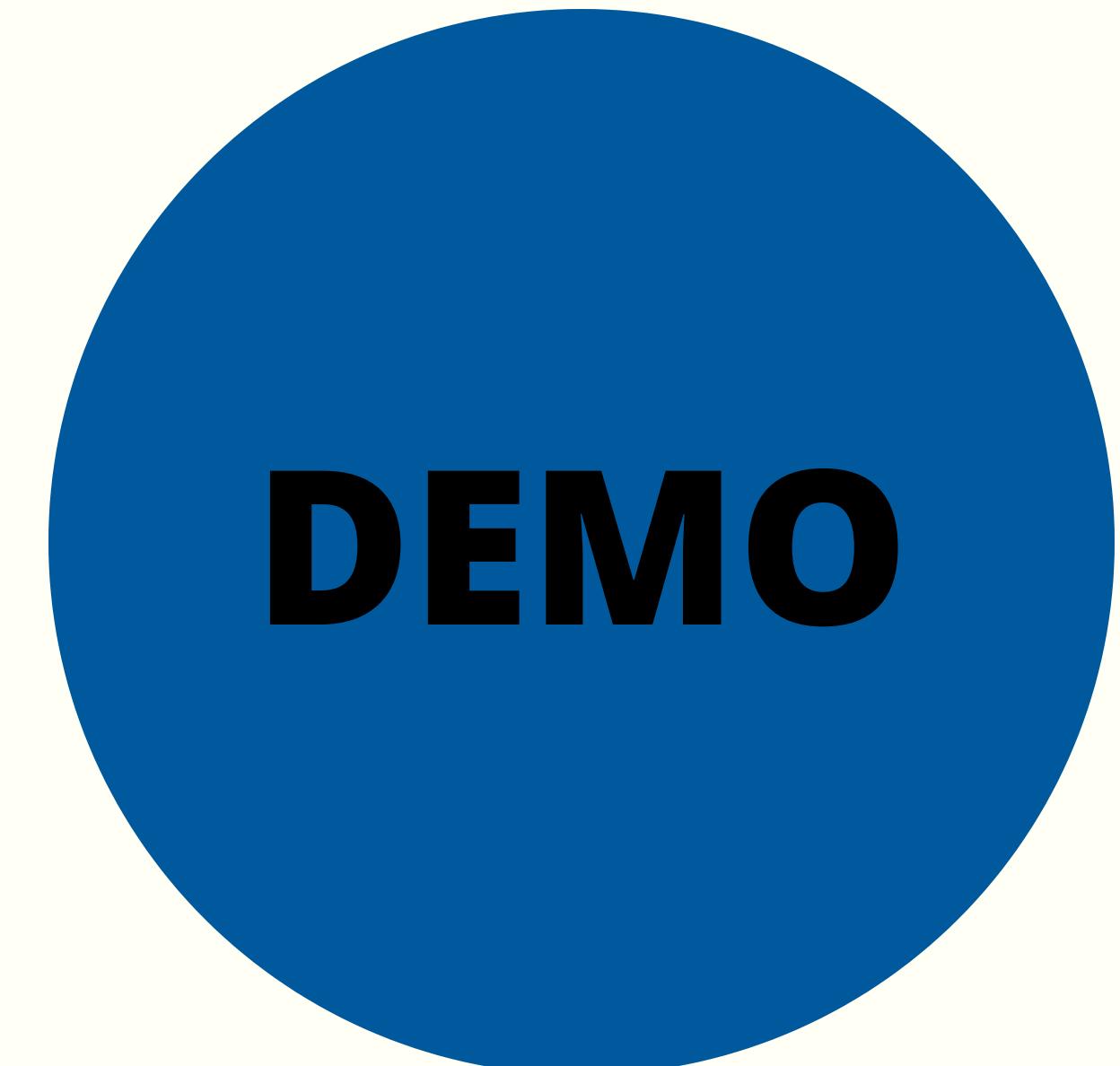


```
1. #include <iostream>
2. using namespace std;
3. int main() {
4.     int i = 1;
5.     do{
6.         cout<<i<<"\n";
7.         i++;
8.     } while (i <= 10);
9. return 0;
10.}
```



Example program for **do-while loop** in
C++

**Q1- Write a
program to show
the mechanism of
a **do-while loop.****



DEMO

Program No. 1

Take integer **n** as input from user.
Then find whether **n** is prime or not.

Program No. 2

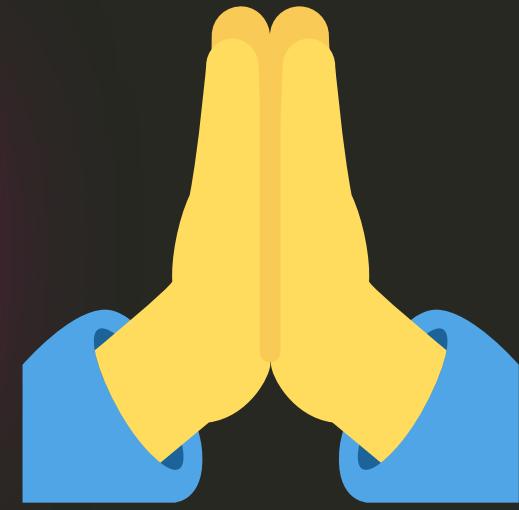
Take integer **n** and **k** as input from user.
Then print table of **n** till **k**

Program No. 3

Take integer **n** as input from user.
Then print n fibonnaci numbers.



THANK YOU



keep calm,
wear mask,
and
study hard



whoami
AKASH MAJI
Your Mentor