



Lab4: *Loops*

UNT CSCE1030, Spring 2021

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Options

The lab is due Friday by 11.59pm

1. WORK BY YOURSELF: This lab instructions are available on Canvas. If you feel comfortable with this assignment, you can do it by yourself. Ask me to check it in the very end before you submit it.
2. WORK WITH ME: Follow the steps I describe on the slides.

What Do We Need to Submit?

Four files for two tasks:

- Lab6A.cpp
- Lab6B.cpp
- Lab6C.cpp

Step1: Prepare the working space

1. Pull up the **.pdf file for Lab6** from your canvas account;
2. Start **Putty**
(cse01.cse.unt.edu)
3. If needed, open lecture slides.

Concept of looping

If we need to repeat steps multiple time as long as some something is true – we use loop structure.

There are few kind of loops that slightly differ in how they control the flow.

We will review while-loop, do-while-loop, and for-loop.

While Loop

- is a control flow statement that executes body of the loop as long as Boolean expression is true.
- "repeated if-statement"

C++ syntax for while-loop:

```
while (Boolean expression)
```

```
{
```

```
  Your_Statement;
```

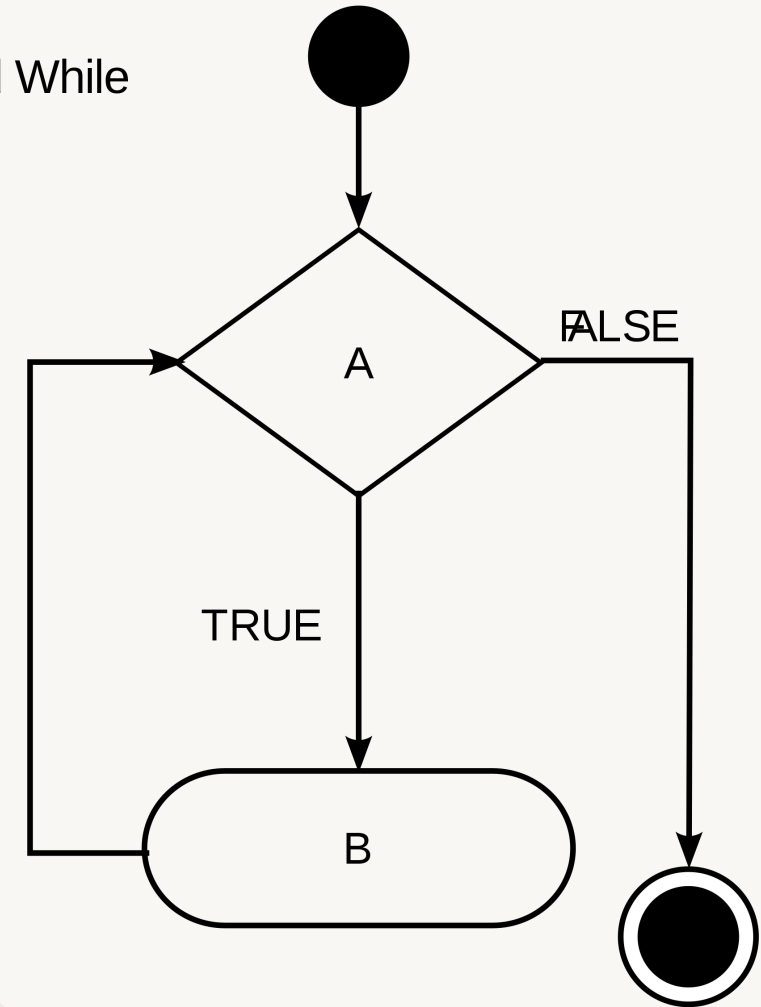
```
  Update the controlling variable;
```

```
}
```

While (A = TRUE) Do

B

End While

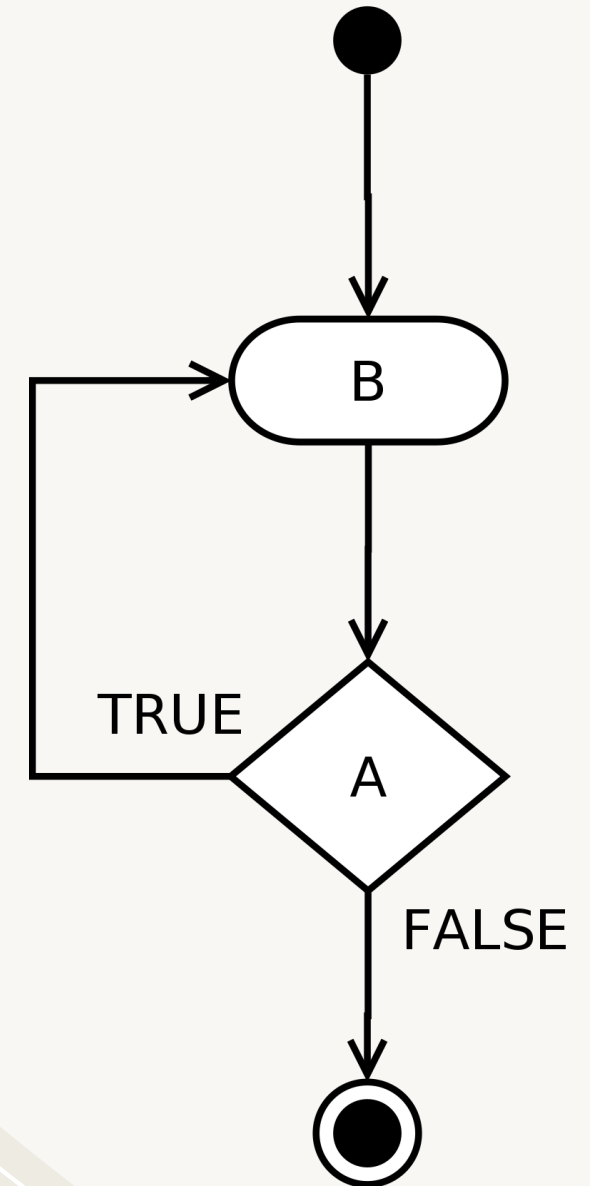


do-while Loop

- control flow statement that executes a block of code **at least once**, and then either repeatedly executes the block, or stops executing it, depending on a given boolean condition at the end of the block.
- C++ syntax for do-while loop:

```
do
{
Statement;
Update the control variable;
}
while (boolean);
```

DO B
WHILE (A)
END WHILE



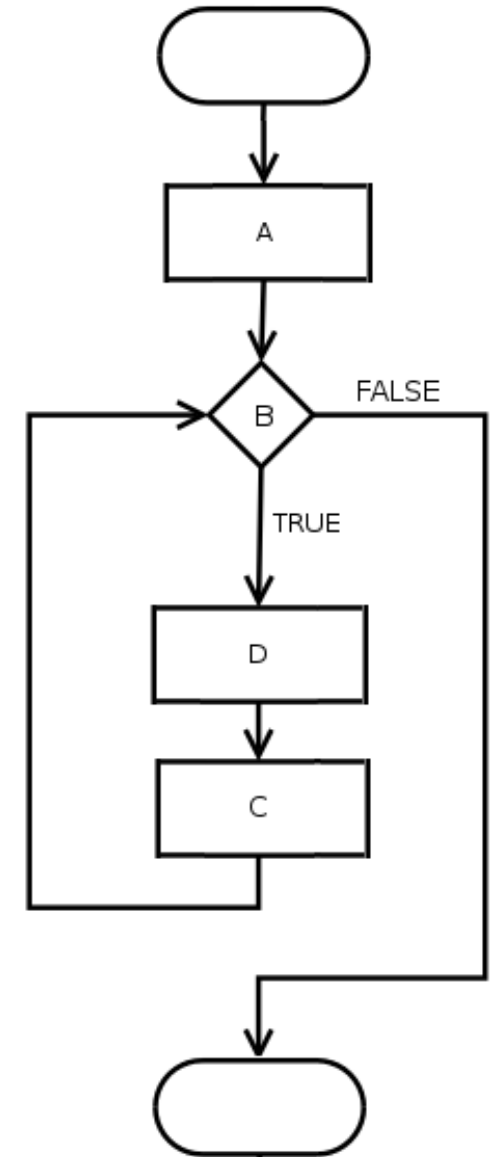
for Loop

- control flow statement for **specifying iteration**, which allows code to be executed repeatedly;
- C++ syntax for for-loop:

```
for (int i=0; i<a; ++i)
{
statement;

}
```

for(A;B;C)
D;



Submission

1. Go to WinSCP and copy your files from the CSE machine on your computer.
2. If you want, show me execution of your programs (to be sure that there is no problems).
3. Submit Lab6A.cpp, Lab6B.cpp, Lab6C.cpp on Canvas.