

Iteration

Chapter 6

1



For Next Time

- Read Chapter 6

2

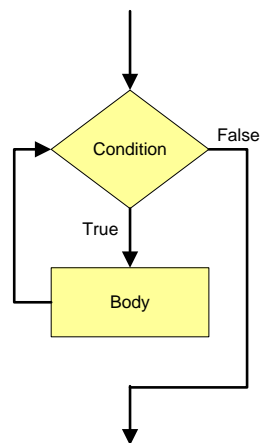
while Statement

- Conditionally execute a section of code based on the value of a Boolean condition
- While the condition remains true continue to execute the section of code

```
while ( condition )  
    body
```

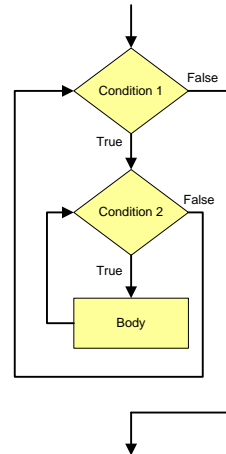
while Flowchart

```
while ( condition )  
    body
```



Nested while

```
while ( condition )
  while ( condition )
    body
```



Flow of while

```
#include <iostream>
using namespace std;
int main()
{
    int count = 1;
    while ( count <= 5 )
    {
        cout << count << endl;
        count++;
    }
}
```

Abnormal Loop Termination

- **break**
 - Exits the loop regardless of the condition
 - Contents of the body after the **break** is skipped
- **continue**
 - Similar to break, but simply skips the rest of the body and immediately checks the condition
- **goto**
 - Jumps to an arbitrary statement within the function
 - Should be used **only** to exit a nested loop

Infinite Loops

```
while ( i >= 1 || i <= 10 )  
{  
    /* Body omitted */  
}
```

 Next . . .

Other conditional and iterative statements