

CS 161, Lecture 6: Loops – 24 January 2018

```
#include <iostream>
using namespace std;
int main( )
{
    int count;

    for (count = 0; count < 500; count++)
        cout << "I will not throw paper airplanes in class." << endl;
    return 0;
}
```

HWEND 10-3



Recall Conditionals

```
if (user_input == "I'm Blue") {  
    cout << "Da ba dee da ba daa" << endl;  
}
```

- Only executes once
- What if the user makes a mistake? Did we only get one shot?

Loops

- Allow us to repeat over and over again until we have met some condition
 - May be relational condition
 - May be incremental or fixed number of time
- Examples of real life loops:

While Loop

- Like an if statement but do it until the condition is met, don't just move on if it doesn't evaluate on the first go
- Use a while loop when you don't know how many times the code will have to execute
- Real life examples:

While Loop Example

Do While

- While loops only start if the condition is initially true
- Maybe we can't determine if it needs to run until we execute that code once
- Do while loops run the code once and then check to see if it should keep running

Do While Example

For Loops

- No condition to check
- Executes for a set number of times
- Examples of for loops in the real world:

For Loop Example