

Simple while loop

Lab Work: Q 1A.

Version 1:

/* In this program a user is asked to enter an integer that is a multiple of 5. If the user enters an invalid number, the program repeatedly prompts the user enter a number until it is multiple of 5. We use a simple while loop to accomplish this task.

This while loop compares a variable expression to a number, and repeats the loop as long as the Comparison is true. */

```
#include <iostream>
using namespace std;

int main() {
    int x;
    cout << "Enter an integer that is a multiple of 5: ";
    cin >> x;

    while ((x % 5) != 0) // Notice that you do not need a semicolon after the Boolean expression.
    {
        cout << "The number you entered is not a multiple of 5. Try again: ";
        cin >> x;
    }

    cout << "Finally, the number, " << x << ", that you entered is a multiple of 5.\n";

    return 0;
}
```

Version 2:

```
#include <iostream>
using namespace std;

int main() {
    int x=1; // x is initialized to 1 so that the Boolean expression is true. (x=0 makes it false)

    while ((x % 5) != 0) // Notice that you do not need a semicolon after the Boolean expression.
    {
        cout << "Enter a number that is a multiple of 5: ";
        cin >> x;
    }

    cout << "The number, " << x << ", that you entered is a multiple of 5.\n";

    return 0;
}
```