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Prepared By:

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Lab Task:

Task 1: Generate the Fibonacci sequence using nested loops.

INPUT:

```
#include <iostream>

using namespace std;


int main() {

   int num;

   cout << "Enter the number up to which you want to generate the Fibonacci sequence: ";

   cin >> num;


   int a = 0, b = 1;

   cout << "Fibonacci Sequence up to " << num << ": " << a << ", " << b << ", ";


   while (a + b <= num) {
```

```
    int next = a + b;

    cout << next << ", ";

    a = b;

    b = next;

  }


  return 0;

}
```

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

int main() {
    int num;
    cout << "Enter the number up to which you want to generate the Fibonacci sequence: ";
    cin >> num;

    int a = 0, b = 1;
    cout << "Fibonacci Sequence up to " << num << ": " << a << ", " << b << ", ";

    while (a + b <= num) {
        int next = a + b;
        cout << next << ", ";
        a = b;
        b = next;
    }

    return 0;
}
```

```
input
Enter the number up to which you want to generate the Fibonacci sequence: 8
Fibonacci Sequence up to 8: 0, 1, 1, 2, 3, 5, 8,

...Program finished with exit code 0
Press ENTER to exit console.
```

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Task 2: Create Pascal's triangle with nested loops.

Inputs:

```
#include <iostream>

using namespace std;


int main() {

    int rows;



    cout << "Enter the number of rows for Floyd's Triangle: ";

    cin >> rows;


    int number = 1;



    for (int i = 1; i <= rows; i++) {

        for (int j = 1; j <= i; j++) {

            cout << number << " ";

            number++;

        }

        cout << endl;

    }
```

```
    return 0;
}
```

Output: