Fibonacci Number Calculator using Iteration

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Function (C++):

double fibIteration(int N)

{

double x = 0;

double y = 1;

double z = 0;

int count = 0;

while (count < N)

{

x = y;

y = z;

z = x + y;

count++;

}

return z;

}

Driver Program (C++):

int main()

{

int input;

char cont;

while (1)

{

cout << "Enter value for N: ";

cin >> input;

cout << endl;

cout << "F(" << input << ") = " << fibIteration(input) << endl << endl;

cout << "Calculate another Fibonacci number? (y/n): ";

cin >> cont;

cout << endl;

if (cont == 'n')

{

break;

}

}

return 0;

}

Example Output:

