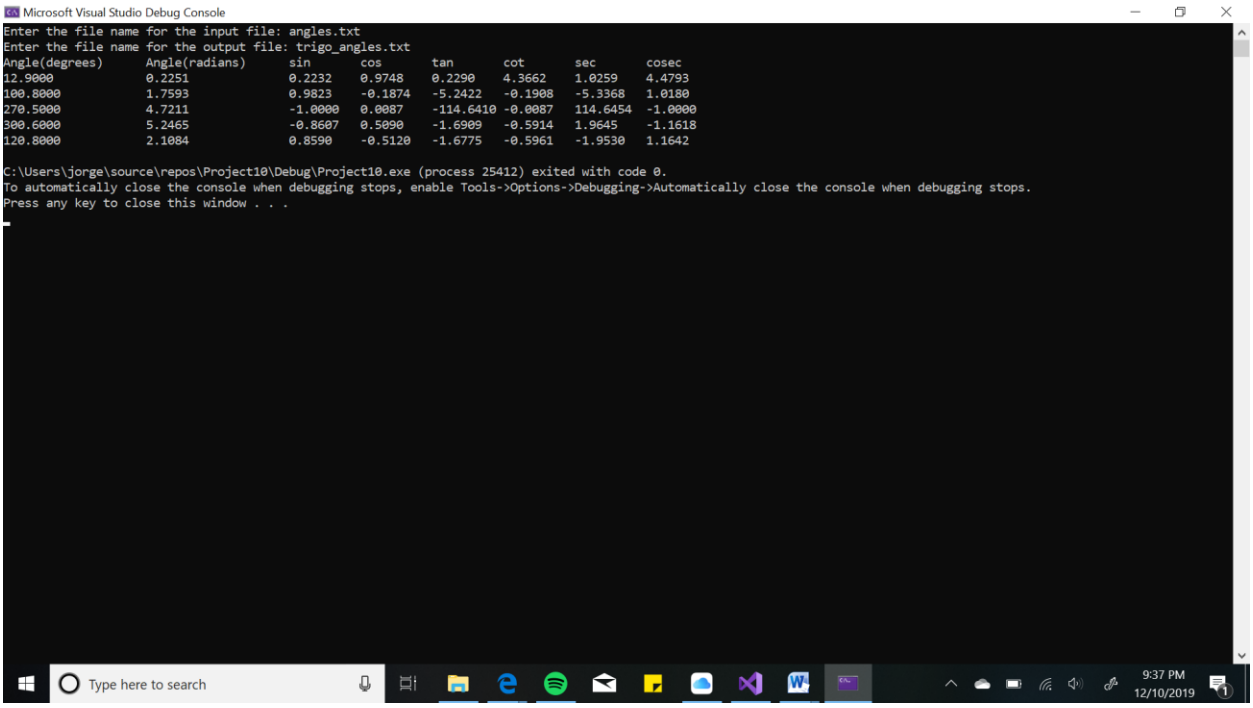
```cpp
//Jorge Rivas
#include <iostream>
#include <fstream>
#include <cmath>
#include <iomanip>
#define PI 3.14159
using namespace std;

int main()
{
	string inputfile, outputfile;
	cout << "Enter the file name for the input file: ";
	cin >> inputfile;
	cout << "Enter the file name for the output file: ";
	cin >> outputfile;
	ifstream fin(inputfile.c_str());
	if (fin.is_open())
	{
		ofstream fout(outputfile.c_str());
		double angle_degree, angle_radians;
		cout << left << setw(20) << "Angle(degrees)" << left << setw(20) <<
"Angle(radians)" << left << setw(10) << "sin" << left << setw(10) << "cos"
			<< left << setw(10) << "tan" << left << setw(10) << "cot" << left <<
setw(10) << "sec" << left << setw(10) << "cosec" << endl;
		fout << left << setw(20) << "Angle(degrees)" << left << setw(20) <<
"Angle(radians)" << left << setw(10) << "sin" << left << setw(10) << "cos"
			<< left << setw(10) << "tan" << left << setw(10) << "cot" << left <<
setw(10) << "sec" << left << setw(10) << "cosec" << endl;
		cout << fixed << setprecision(4);
		fout << fixed << setprecision(4);
		while (!fin.eof())
		{
			fin >> angle_degree;
			angle_radians = (PI * angle_degree) / 180;
			cout << left << setw(20) << angle_degree << left << setw(20) <<
angle_radians;
			fout << left << setw(20) << angle_degree << left << setw(20) <<
angle_radians;

			cout << left << setw(10) << sin(angle_radians) << left << setw(10)
<< cos(angle_radians) << left << setw(10) << tan(angle_radians)
				<< left << setw(10) << (1 / tan(angle_radians)) << left <<
setw(10) << (1 / cos(angle_radians)) << left << setw(10) << (1 / sin(angle_radians)) <<
endl;
			fout << left << setw(10) << sin(angle_radians) << left << setw(10)
<< cos(angle_radians) << left << setw(10) << tan(angle_radians)
				<< left << setw(10) << (1 / tan(angle_radians)) << left <<
setw(10) << (1 / cos(angle_radians)) << left << setw(10) << (1 / sin(angle_radians)) <<
endl;

		}
		fin.close();
		fout.close();
	}
	else
		cout << "Unable to open file : " << inputfile << endl;

	return 0;
```

}


Microsoft Visual Studio Debug Console
Enter the file name for the input file: angles.txt
Enter the file name for the output file: trigo_angles.txt
Angle(degrees) Angle(radians) sin cos tan cot sec cosec
12.9000 0.2251 0.2232 0.9748 0.2290 4.3662 1.0259 4.4793
100.8000 1.7593 0.9823 -0.1874 -5.2422 -0.1908 -5.3368 1.0180
270.5000 4.7211 -1.0000 0.0087 -114.6410 -0.0087 114.6454 -1.0000
300.6000 5.2465 -0.8607 0.5090 -1.6909 -0.5914 1.9645 -1.1618
120.8000 2.1084 0.8590 -0.5120 -1.6775 -0.5961 -1.9530 1.1642
C:\Users\jorge\source\repos\Project10\Debug\Project10.exe (process 25412) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
Press any key to close this window . . .
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