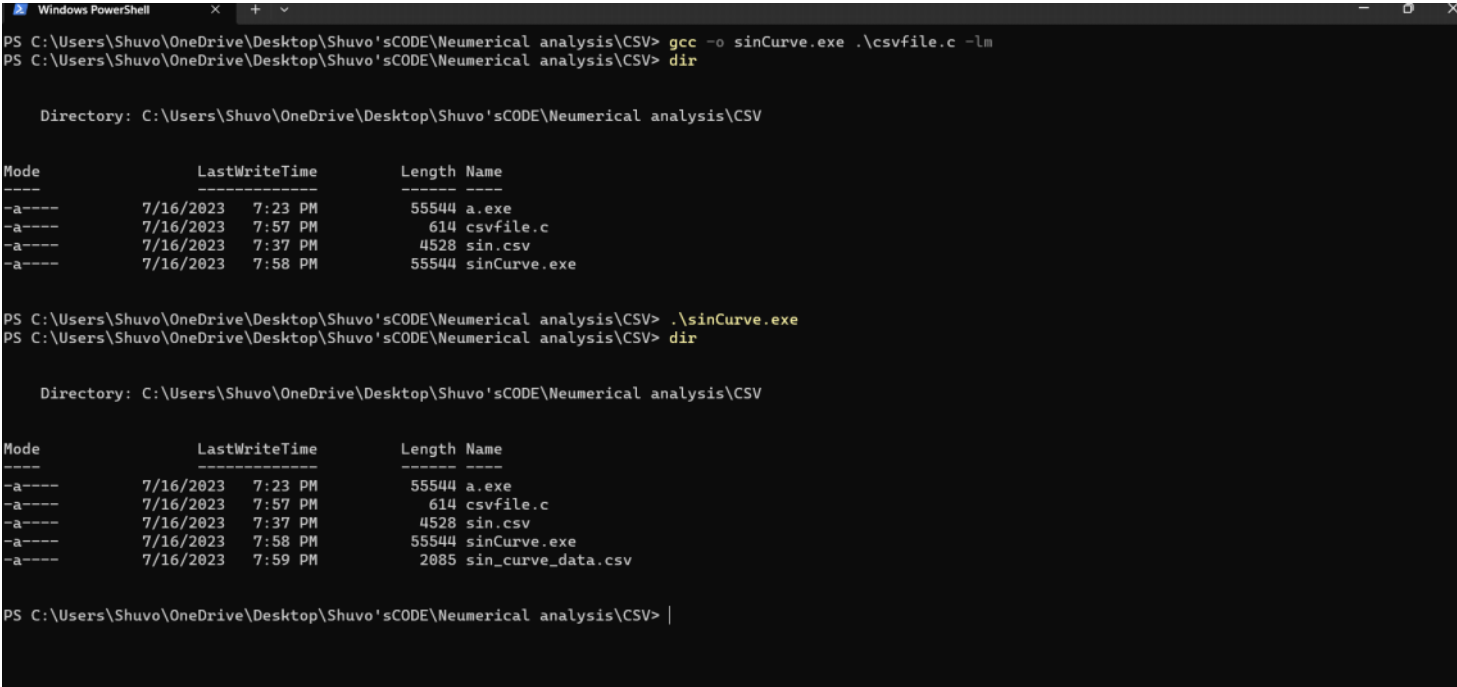


CSV..

```
#include <stdio.h>
#include <math.h>
int main() {
    double a = 0;
    double b = 2 * 3.1416;
    double m = 100;
    double h = (b - a) / m;
    FILE* fp = fopen("sin_curve_data.csv", "w"); // Open the file in write mode
    if (fp == NULL) {
        printf("Error opening the file.");
        return 1;
    }
    fprintf(fp, "\"x\"", "sin(x)\\n"); // Print the header to the file
    double x = a;
    for (int i = 0; i <= m; i++) {
        x += h;
        fprintf(fp, "%lf, %lf\\n", x, sin(x)); // Print data to the file
    }
    fclose(fp); // Close the file
    return 0;
}
```



The screenshot shows a Windows PowerShell terminal window with the following commands and output:

```
PS C:\Users\Shuvo\OneDrive\Desktop\Shuvo'sCODE\Neumerical analysis\CSV> gcc -o sinCurve.exe .\csvfile.c -lm
PS C:\Users\Shuvo\OneDrive\Desktop\Shuvo'sCODE\Neumerical analysis\CSV> dir

Directory: C:\Users\Shuvo\OneDrive\Desktop\Shuvo'sCODE\Neumerical analysis\CSV

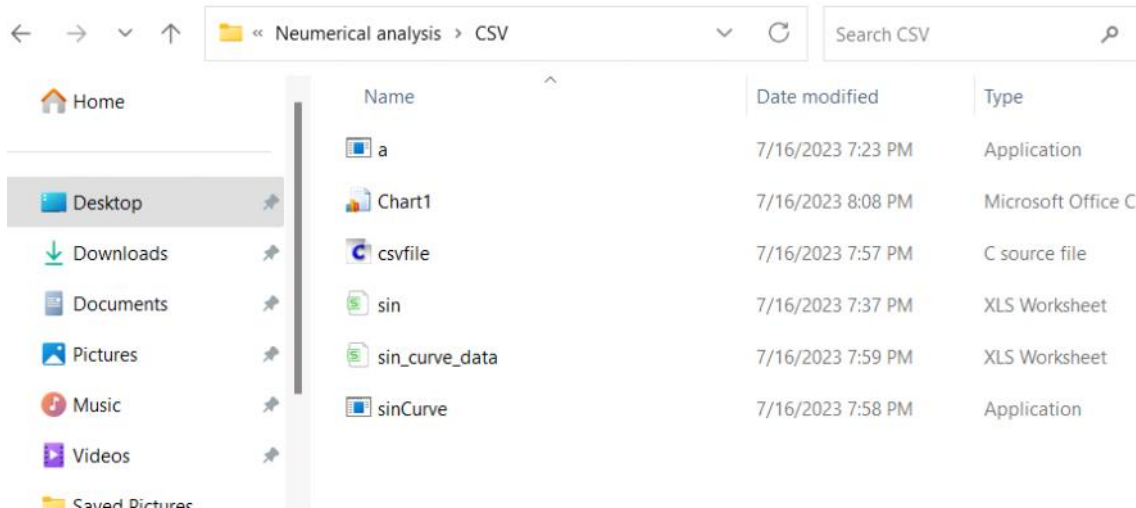
Mode                LastWriteTime         Length Name
----                -
-a-----         7/16/2023   7:23 PM           55544 a.exe
-a-----         7/16/2023   7:57 PM            614 csvfile.c
-a-----         7/16/2023   7:37 PM            4528 sin.csv
-a-----         7/16/2023   7:58 PM           55544 sinCurve.exe

PS C:\Users\Shuvo\OneDrive\Desktop\Shuvo'sCODE\Neumerical analysis\CSV> .\sinCurve.exe
PS C:\Users\Shuvo\OneDrive\Desktop\Shuvo'sCODE\Neumerical analysis\CSV> dir

Directory: C:\Users\Shuvo\OneDrive\Desktop\Shuvo'sCODE\Neumerical analysis\CSV

Mode                LastWriteTime         Length Name
----                -
-a-----         7/16/2023   7:23 PM           55544 a.exe
-a-----         7/16/2023   7:57 PM            614 csvfile.c
-a-----         7/16/2023   7:37 PM            4528 sin.csv
-a-----         7/16/2023   7:58 PM           55544 sinCurve.exe
-a-----         7/16/2023   7:59 PM            2085 sin_curve_data.csv

PS C:\Users\Shuvo\OneDrive\Desktop\Shuvo'sCODE\Neumerical analysis\CSV> |
```



1. Open Excel.
2. Go to the "Data" tab.
3. Click on "From Text/CSV" in the "Get & Transform Data" group. Select the `sin_curve_data.csv` file you generated using the C code and click "Import."
4. In the "Import Data" dialog box, make sure "Delimited" is selected and click "Next."
5. Choose "Comma" as the delimiter and click "Finish."
6. Now, you should see the data loaded into Excel. You'll have two columns, one for "x" and the other for "sin(x)."
7. Select the two columns of data (excluding the header).
8. Click on the "Insert" tab.
9. In the "Charts" group, click on the "Line" chart button and select the first option "Line" chart.
10. Excel should now plot the sin curve using the data from the CSV file.
11. You can customize the chart appearance and add labels, titles, etc., as needed.

