Script started on Fri 02 Mar 2018 10:35:10 AM PST

[leesam@sp1:21]> cat lab4.c

/\* Sam Lee \*/

/\* Lab 4 \*/

/\* Figure the area of the top of a cylinder \*/

/\* and the volume of a cylinder \*/

#include <stdio.h>

#include <stdlib.h>

#include <math.h>

#define FILE\_IN "lab4.dat"

//#define FILE\_IN "lab4sample.dat"

#define FILE\_OUT "lab4.out"

int main(void)

{

double radius, height, area, volume;

int count;

FILE \* In;

FILE \* Out;

In = fopen(FILE\_IN, "r");

if (In == NULL) {

printf("Error on opening the input file \n");

}

Out = fopen(FILE\_OUT, "w");

if (Out == NULL) {

printf("Error on opening the output file \n");

}

fprintf(Out, "Sam Lee. Lab4. \n");

while((fscanf(In, "%lf%lf", &radius, &height)) == 2) {

area = M\_PI \* radius \* radius;

volume = M\_PI \* radius \* radius \* height;

count++;

fprintf(Out, "\nCylinder %1d", count);

fprintf(Out, "\nThe radius is: %9.3f", radius);

fprintf(Out, "\nThe height is: %9.3f", height);

fprintf(Out, "\nThe top area is: %9.3f", area);

fprintf(Out, "\nThe volume is: %9.3f\n", volume);

}

fclose(In);

fclose(Out);

return EXIT\_SUCCESS;

}

[leesam@sp1:22]> gg [Kcc -lm lab4.c

[leesam@sp1:23]> a.out

[leesam@sp1:24]> cat lab.out [K [K [K [K4.out

Sam Lee. Lab4.

Cylinder 1

The radius is: 3.000

The height is: 4.000

The top area is: 28.274

The volume is: 113.097

Cylinder 2

The radius is: 5.000

The height is: 14.200

The top area is: 78.540

The volume is: 1115.265

Cylinder 3

The radius is: 50.000

The height is: 2.000

The top area is: 7853.982

The volume is: 15707.963

Cylinder 4

The radius is: 50.000

The height is: 10.000

The top area is: 7853.982

The volume is: 78539.816

[leesam@sp1:25]> exit

exit

Script done on Fri 02 Mar 2018 10:35:49 AM PST