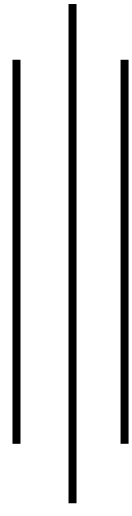
(Sample Cover page, please use your own university/college name& department for your lab report submission)

Use the Cover page of your College

LAB Sheet #1



Lab Report Submitted By:

Name: _____

RollNo: _____

Submitted To:

Department Name

Lecturer Name

Lab Date:

Submission Date:

Lecturer Signature

Objective(s):

- To be familiar with syntax and structure of C-programming.
- To learn problem solving techniques using C

Title:

Write a Program to calculate and display the volume of a CUBE having its height (h=10cm), width (w=12cm) and depth (8cm).

Theory:

The problem is to calculate the volume of a CUBE having its inputs parameters identified as:Height (integer type), width (integer type) and depth (integer type). The output of the program is to display the volume; hence the output parameter is identified as vol (integer type). During the processing or calculation phase, we don't need any extra parameters (variables) for this problem.

The volume of the cube is the multiplication of its height, width and depth, hence the mathematical formula to calculate volume is:

`vol = height* width* depth. (vol = h*w*d)`

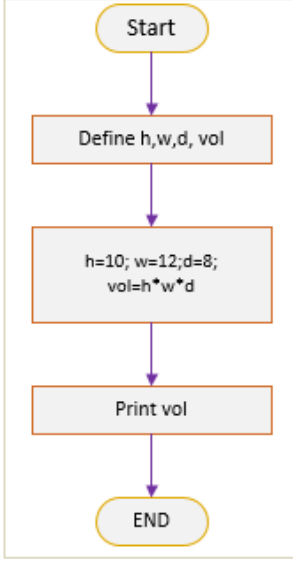
Input variables	Processing variables/calculations	Output variables	Necessary header files/functions/macros

`h(int)`
`w(int)`
`d(int)`
	`vol = h*w*d`	`vol`
		`(int)`
			`stdio.h`

Algorithm:

1. Start
2. Define variables: h(int), w(int), d(int), vol(int)
3. Assign value to variables: h = 10, w=12, d=8
4. Calculate the volume as: vol = h*w*d
5. Display the volume (vol)
6. Stop

Flowchart:



Code:

```
//Following code is written and compiled
in Code::Blocks  IDE
#include<stdio.h>
int main(void)
{
//start the program
inth,w,d,vol;
//variables declaration
h=10;w=12;d=8;
//assign value to variables
vol=h*w*d;
//calculation using mathematical formula
printf("The Volume of the cube is:
%d",vol);
//display the volume
return 0;
//end the main program
}
```

Output (Compilation, Debugging & Testing)

The Volume of the cube is: 960

Discussion and Conclusion

This is the first code written in C program. The program is focused on the calculation of volume of a cube for the given height, width and depth. From this lab, I understood the basic structure of C programming including the meaning of header files & steps of problem solving. Hence, volume of a cube is calculated and displayed.