

LAB:2

MODIFICATIONS

1.Modify the above program to write all the function definitions outside the class.

PROGRAM:

```
#include<iostream>
using namespace std;

class cube{
private:
float h;
float b;
float l;

public:
void set_data(float,float,float);
void get_data();
void volume();
void show_data();
};

void cube::show_data(){
cout<<"height="<<h<<"\nwidth="<<b<<"\nlength="<<l<<endl;

}

void cube::volume(){
cout<<h*l*b<<endl;
}

void cube::get_data(){
cout<<"please enter height,width,length\n"<<endl;
cin>>h>>b>>l;
}

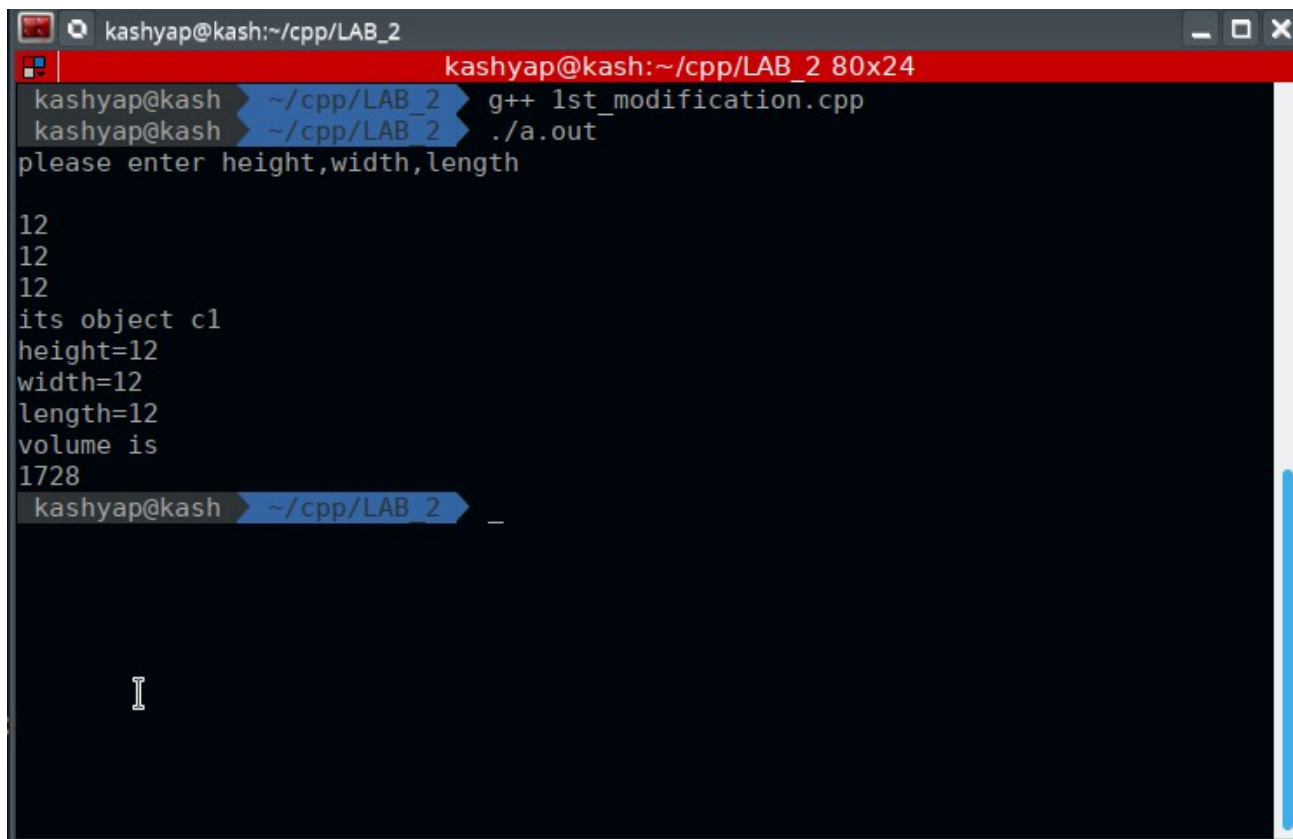
void cube::set_data(float he,float be,float le){
h=he;
b=be;
l=le;
}

int main(){
cube c1;
```

```
// c1.set_data(12,2,3);
c1.get_data();
// cout<<c1.h;
cout<<"its object c1"<<endl;
c1.show_data();
cout<<"volume is"<<endl;
c1.volume();
return 0;

}
```

OUTPUT:



```
kashyap@kash:~/cpp/LAB_2
kashyap@kash:~/cpp/LAB_2 g++ 1st_modification.cpp
kashyap@kash:~/cpp/LAB_2 ./a.out
please enter height,width,length
12
12
12
its object c1
height=12
width=12
length=12
volume is
1728
kashyap@kash:~/cpp/LAB_2
```

2. Add a function, which displays a menu having the options to find the surface area and the volume of the cube. Write another function to calculate the surface area of the cube from the input dimensions. The menu itself should call the appropriate function to calculate volume or surface area.

PROGRAM:

```
#include<iostream>
using namespace std;

class cube{
private:
float h,b,l;
int selector;
public:
void set_data(){
cout<<"please enter the height width and length"<<endl;
cin>>h>>b>>l;
}
void display_data(){
cout<<"enter 1 for surface area\nenter 2 for volume\n"<<endl;
cin>>selector;
switch (selector){
case 1:
cout<<"surface area is:"<<6*l*b<<endl;
break;
case 2:
cout<<"volume is:"<<l*b*h<<endl;
break;
default:
cout<<"invalid number"<<endl;
}
}

};

int main(){
cube c1;
c1.set_data();
c1.display_data();
return 0;
}
```

OUTPUT:

```
kashyap@kash:~/cpp/LAB_2
kashyap@kash:~/cpp/LAB_2 g++ 2nd_modification.cpp
kashyap@kash:~/cpp/LAB_2 ./a.out
please enter the height width and length
12
12
12
enter 1 for surface area
enter 2 for volume

1
surface area is:864
kashyap@kash:~/cpp/LAB_2 ./a.out
please enter the height width and length
12
12
12
enter 1 for surface area
enter 2 for volume

2
volume is:1728
kashyap@kash:~/cpp/LAB_2 _
```