

Assignment 3

Q1. Write a menu driven program to calculate volume of the box($\text{length} * \text{width} * \text{height}$). Provide parameterless, parameterized(with 3 parameters) and single parameterized constructor. Create the local objects in respective case and call the function to calculate area.

Menu options ->

1. Calculate Volume with default values
2. Calculate Volume with length, breadth and height with same value
3. Calculate Volume with different length, breadth and height values.

Q2. Imagine a tollbooth at a bridge. Cars passing by the booth are expected to pay a fifty-cent toll. Mostly they do, but sometimes a car goes by without paying. The tollbooth keeps track of the number of cars that have gone by and of the total amount of money collected. Model this tollbooth with a class called tollbooth.

The two data items are a type unsigned int to hold the total number of cars, and a type double to hold the total amount of money collected.

A constructor initializes all data members to 0. A member function called payingCar() increments the car total and adds 0.50 to the cash total. An other function, called nopayCar() increments the car total but adds nothing to the cash total. Finally, a member function called printOnConsole() displays the two totals and number of paying as well as non paying cars total.

Q3. Write a class Address with data members (string building, string street, string city ,int pin)

Implement constructors, getters, setters, accept(), and display() methods.

Test the class functionalities by creating the object of class and calling all the functions.