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# Java Programming Laboratory

## LAB - IV

Date:- 30/01/2024

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- A. A plastic manufacturer sells plastic in different shapes like 2D sheet and 3D box. The cost of a sheet is Rs 40/- per square ft. and the cost of a box is Rs 60/- per cubic ft. Implement it in Java to calculate the cost of plastic as per the dimensions given by the user where 3D inherits from 2D.

**Input:** Enter dimensions

**Output:** Display the cost of plastic

- B. Write a program to Illustrate the execution of constructors in multilevel inheritance with three Java classes – **plate** (length, width), **box** (length, width, height), **woodbox** (length, width, height, thick) where box inherits from plate and woodbox inherits from box class. Each class has a constructor where dimensions are taken from the user.

**Input:** Enter the dimensions

**Output:** Display the dimensions accordingly

- C. Write a program in Java having three classes Apple, Banana and Cherry. Class Banana and Cherry are inherited from class Apple and each class has their own member function show() . Using the Dynamic Method Dispatch concept displays all the show() method of each class.

**Input:** Mention show function of each class.

**Output:** Display show function of each class accordingly.

- D. Write a class Account containing acc\_no, balance as data members and two methods as input() for taking input from user and disp() method to display the details. Create a subclass Person which has name and aadhar\_no as extra data members and override disp() function. Write the complete program to take and print details of three persons.

**Input:** Enter details of three persons.

**Output:** Display details of three persons.