

CS2000 Lab Statement 11

1. Extend the Shape class hierarchy developed as part of earlier problem statement; Your package should support an Abstract class called Shape from which create possible derivations of Point, Circle and Cylinder. Support behaviors of printshape details, printshapename, area and volume. Use virtual functions to support the above behaviors in a polymorphic fashion by accessing behaviors of derived class objects via base class pointers.
2. Extend the above Shape class with a next level split of 2D and 3D shapes and create 3 new derivations under each category (other than the ones developed in (1) and support the respective behaviors such as area, volume, lateral surface area etc. in a polymorphic fashion.
3. Use multiple inheritance to create a new shape type that inherits features from more than one base class and support polymorphic behaviors with respect to the corresponding shape type.