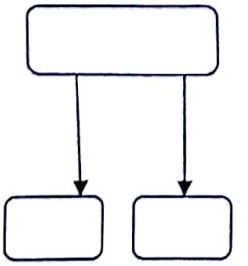

1. Write a program contains the following:

i. Class **Depart** that has:
   - **a.** Data members: Dname, Pname[2] as string.
   - **b.** A function to input data members.

ii. Class **Part1** which is a subclass from class **Dpart** that has:
   - **a.** Data member: **P1Score[7] as float.**
   - **b.** A function to input data members.
   - **c.** Function **MSum()** that returns the sum of all scores.
   - **d.** A function to display all data members.

iii. Class **Part2** which is a subclass from class **Dpart** that has:
   - **a.** Data member: **P2Score[10] as floot .**
   - **b.** A function to input data members.
   - **e.** Function **Fsum()** that returns the sum of all scores.
   - **f.** A function to display all data members.

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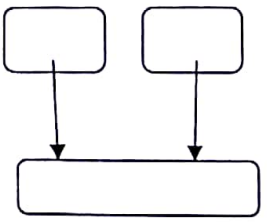
2. Write a program contains the following:

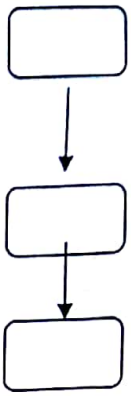


i. Class **X _axis** that has:
   - **a.** Data member: **x as float.**
   - **b.** A **constructor** function.

ii. Class **Y _axis** that has:
   - **a.** Data member: **y as float.**
   - **b.** A **constructor** function.

iii. Class **Point_3d** which is a subclass from **X -axis** class and **Y _axis** class that has:
   - **a.** Data member: **z as float.**
   - **b.** A **constructor** function.
   - **c.** A function to input all data members (x, y, z)
   - **d.** Function **norm ()** that returns the distance between the point and (0, 0, 0).
   - **e.** Friend function **distance ()** that computes the distance between two points.

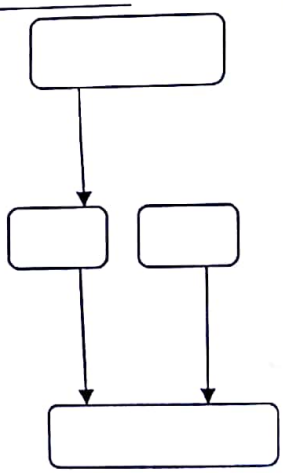
3. Write a program contains the following:



i. Class **Shape** that has:
   - **a.** Data member: **Length as double.**
   - **b.** A **constructor** function.

ii. Class **Rectangle** which is a subclass from class **Shape** that has:
   - **a.** Data member: **Width as double.**
   - **b.** A **constructor** function.
   - **c.** Function **area ()** that returns the area of rectangle.

iii. Class **Parallelogram** which is a subclass from class **Rectangle** that has:
   - **a.** Data member: **Height as double.**
   - **b.** A **constructor** function.
   - **c.** Function **volume ()** that returns the volume of parallelogram.



4. Write a program contains the following:

i. Class **Student** that has:
   - **a.** Data members: name, age, ID.
   - **b.** A function to input data members.

ii. Class **Subjects** which is a subclass from class **student** that has:
   - **a.** Data member: Sdegree[10] **as float.**
   - **b.** A function to input data members.
   - **c.** Afunction to display data members.
   - **d.** A function to return the sum of Sdegrees.

iii. Class **Sport** that has:
   - a. Data member: Sd as float.
   - b. A function to input data member.

iv. Class **Total** is a subclass of **Subjects** and **Sport:**
   - a. Data member: average as float.
   - b. A function to compute the average of all degrees (Sdegree, Sd) .
   - c. A function to display all data.