**Assignment 1**

1- Create a simple **Student** class to store and manage the details of multiple students using an array of objects. **Class Student**:

* + Data Members:
    - name (string)
    - rollNumber (int)
    - marks (float)
  + Member Functions:
    - setDetails(): Function to input the student details
  + Use an array of Student objects to store the details of multiple students.
  + Allow the user to enter the details of n students and display their details.

2- Create a simple program to calculate the area of different shapes using **inheritance**. You will create a base class for a general shape, and derive classes for specific shapes like **Circle** and **Rectangle**.

**Requirements:**

1. **Base Class Shape**:
   * Member Function:
     + getArea(): Pure virtual function to calculate the area of a shape.
2. **Derived Class Circle** (inherits from Shape):
   * Data Member:
     + radius (float)
   * Override getArea() to calculate the area of a circle.
3. **Derived Class Rectangle** (inherits from Shape):
   * Data Members:
     + length (float)
     + width (float)
   * Override getArea() to calculate the area of a rectangle.
4. **Main Task**:
   * Use an array of pointers to the base class to store different shapes.
   * Calculate and display the area of each shape.