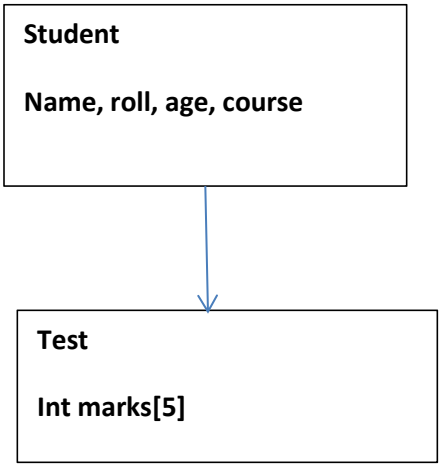
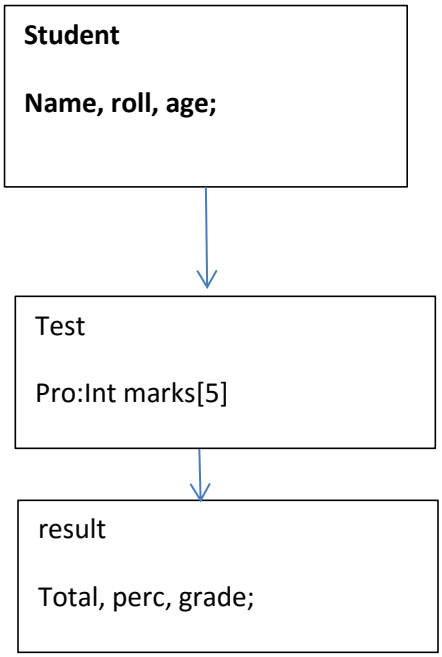
Lab-6

Topic: Inheritance

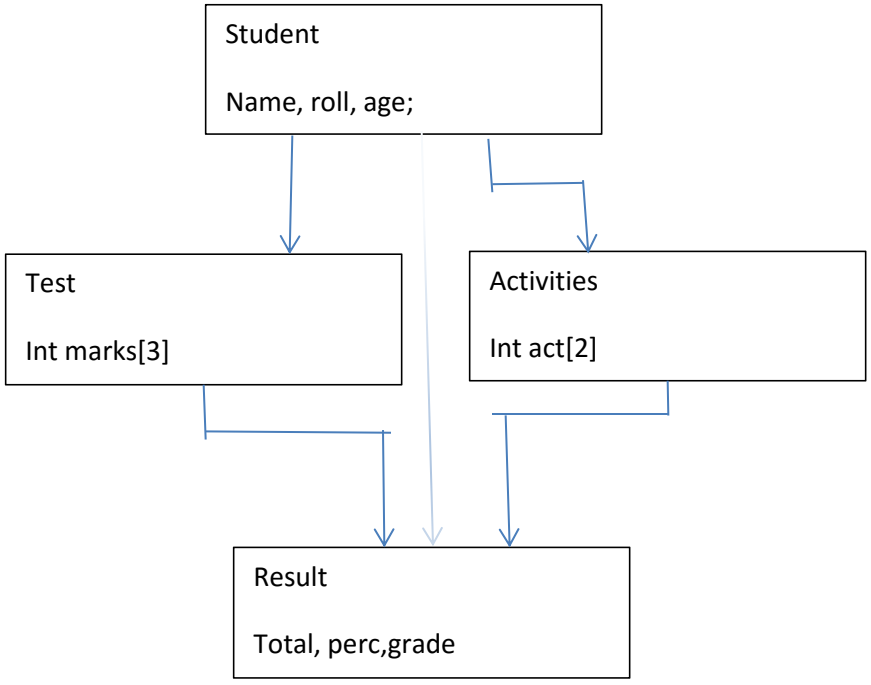
i. Create a class student which stores name, roll number and age of a student. Derive a class test from student class, which stores marks in 5 subjects. Input and display the details of a student.



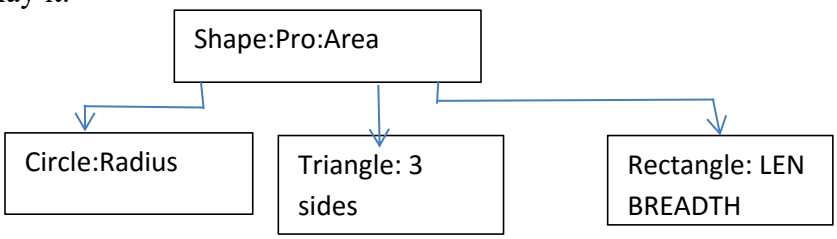
ii. Extend the program i. to derive a class from result from class 'test' which includes member function to calculate total marks and percentage of a student. Input the data for a student and display his/her grade.



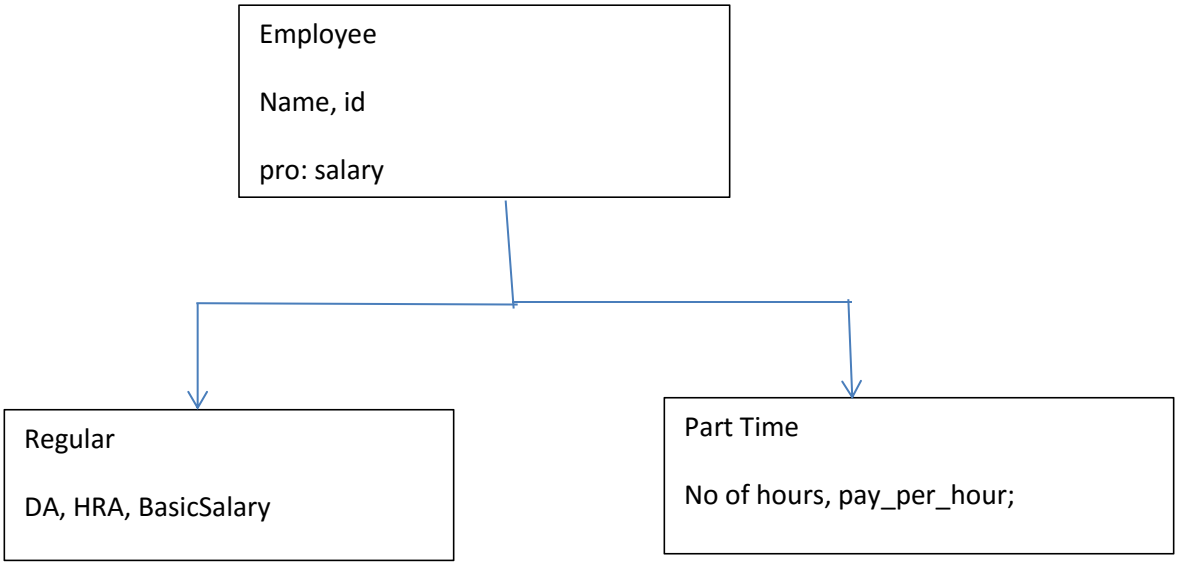
iii. Extend the program ii. to include a class sports, which stores the marks in sports activity. Derive the result class from the classes 'test' and 'Activities'. Calculate the total marks and percentage of a student.



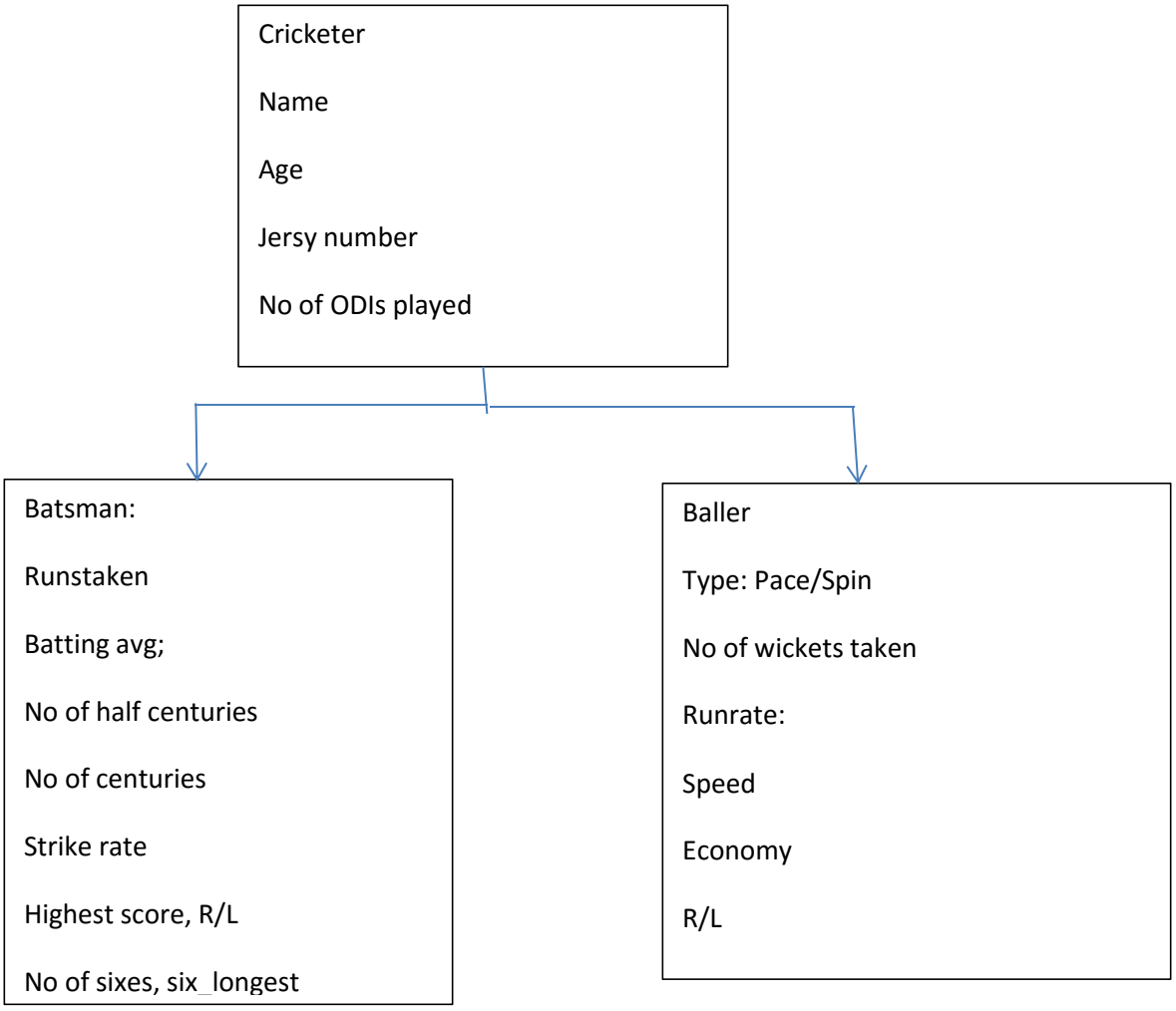
iv. Create a class 'shape'. Derive three classes from it: Circle, Triangle and Rectangle. Include the relevant data members and functions in all the classes. Find the area of each shape and display it.



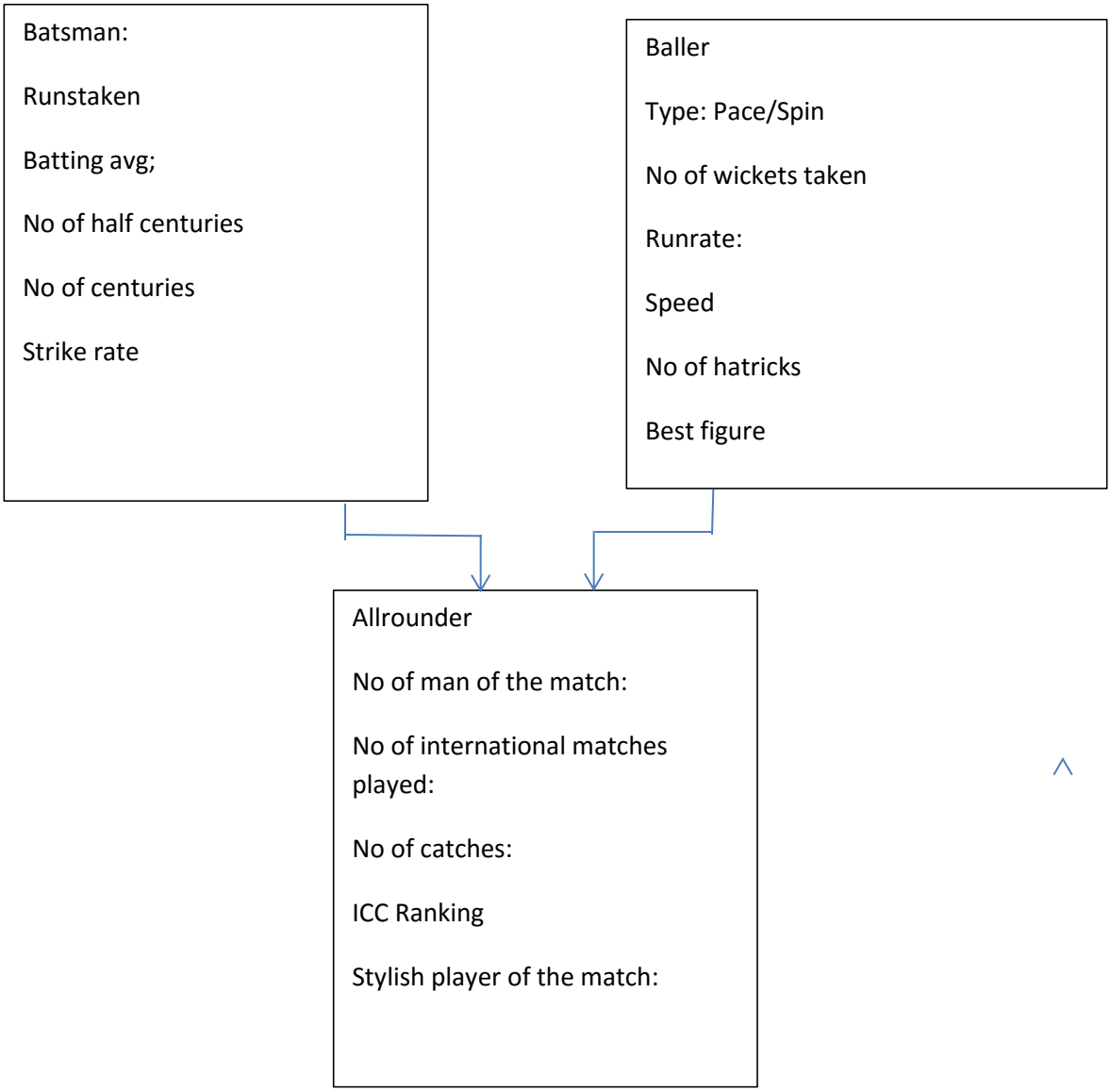
v. Create a class which stores employee name,id and salary Derive two classes from 'Employee' class: 'Regular' and 'Part-Time'. The 'Regular' class stores DA, HRA and basic salary. The 'Part-Time' class stores the number of hours and pay per hour. Calculate the salary of a regular employee and a par-time employee.


Employee
Name, id
pro: salary
Regular
DA, HRA, BasicSalary
Part Time
No of hours, pay_per_hour;

VI.


Cricketer
Name
Age
Jersy number
No of ODIs played
Batsman:
Runstaken
Batting avg;
No of half centuries
No of centuries
Strike rate
Highest score, R/L
No of sixes, six_longest
Baller
Type: Pace/Spin
No of wickets taken
Runrate:
Speed
Economy
R/L

VII


Batsman:
Runstaken
Batting avg;
No of half centuries
No of centuries
Strike rate
Baller
Type: Pace/Spin
No of wickets taken
Runrate:
Speed
No of hatricks
Best figure
Allrounder
No of man of the match:
No of international matches played:
No of catches:
ICC Ranking
Stylish player of the match: