Assignment 3

Q1. Design a function that calculates the area of a rectangle. You could define default values for the width and the height but still allow the caller to provide different values when needed.

Q2. Raising a number n to a power p is the same as multiplying n by itself p times. Write a function called power() that takes a double value for n and an int value for p, and returns the result as a double value. Use a default argument of 2 for p, so that if this argument is omitted, the number n will be squared. Write a main() function that gets values from the user to test this function.

Q3. Write a program to define function ***cube()*** as inline for calculating cube.

Q4. Write a program that will overload a function Volume() to compute following operations:

1. A cube (side)
2. A cuboid (length, breadth, height)
3. A sphere (radius)

Q4. **.** Create a class containing the details of Students as details below and a main function to test the class:

Data Members(properties):

1. Name
2. Roll No
3. Degree
4. Hostel
5. CurrentCGPA

Member Function(behavior):

1. addDetails();
2. updateDetails();
3. updateCGPA();
4. updateResidenceInfo();
5. displaydetails();

Q5. Create a code snippet that illustrates the following:

1. calling of private member functions inside public member function
2. Access private member functions inside public member function