# Lab 1

**Submission date:** Before17th September 2015 **Submit to:** LMS

**Note:** Submit your complete code in **.txt** format. Title of document and Email should be **YourName_RollNo_Assignment1_DE35_CE_Syndicate.** Late submissions will not be considered. You have to give your viva before 17th September i.e. before next lab.

**Do your own work. Any kind of plagiarism found will result in negative marks**

**Q1.** Create a struct Rectangle where a rectangle is defined by Length & Width. Each Rectangle has an area and perimeter. You can also compare two rectangles with respect to the area.

**Q2.** Create a struct Student where attributes associated with each student are his name, registration number, father name, degree and department. One can view the details of any student and can also overwrite the details.

**Q3.** Create a structcomplexNumber choose the attributes accordingly. Provide Following functions

- A function to take input for the attributes of complex number.
- A function isZero to check if the complex number is 0? Function should return 1 if the complex number if zero and return 0 otherwise.
- A function isGreaterThan (compare two complexNumber and return 1 if first complex number is greater than second)
- A function Add that adds two complex numbers and return their sum as another complex number.

**Q4.** Make a struct "Cylinder". Choose appropriate attributes. The struct should include input methods. Class should be able to calculate:

Surface Area of Cylinder (formulaA = 2πr2 + 2πrh = 2πr(r + h))

Volume of cylinder (formula V = πr2h )