**Exercise 1 :***Create a class called Worker. Write classes DailyWorker and SalariedWorker that inherit from Worker. Every worker has a name and a salary rate. Write method Pay (int hours) to compute*

*the week pay of every worker. A Daily worker is paid on the basis of the number of days*

*she/he works.The salaried worker gets paid the wage for 40 hours a week no matter what the*

*actual hours are. Test this program to calculate the pay of workers.*

**Exercise 2 :***Create a class called Shape3D with the following method signatures alone, volume () and*

*surfaceArea (). Then create subclasses like Cylinder, Sphere, and Cube etc and implement*

*these methods.*

**Exercise 3 :***Create the classes required to store data regarding different types of courses that employees in a company can enroll for. All courses have name and course fee. Courses are also either*

*classroom delivered or delivered online. Courses could also be full time or part time. The*

*program must be menu based input which enables the course coordinator to register*

*employees for courses, list out employees registered for specific courses, deregister employees*

*from a course.*

**Exercise 4 :***Create a class called Calculator which has 4 different methods add, diff, mul and div which*

*accepts two numbers as parameters. Overload the methods such that the parameters can be*

*of the following pattern.*

1. *Both are of int data type.*
2. *Both are of double data type.*
3. *First parameter is of int data type and second parameter is of double data type.*
4. *First parameter is of double data type and second parameter is of int data type.*

*Create anobject to access these methods and invoke these methods with different type of*

*numbers and display the result in the corresponding methods.*

**Exercise 5 :***Create a class called shape with the following methods*

1. *area*
2. *perimeter*

*Overload the area and perimeter method to calculate for both square and rectangle.*

*Create a main class and invoke the area method to calculate the area of the square and*

*rectangle. Also invoke the perimeter method to calculate the perimeter of the square*

*and rectangle.*

**Exercise 6 :***Write a program to construct an array with 10 elements and to find the number of*

*occurrences of each element in the Array.*

**Exercise 7 :***Write a program to construct two matrices and display the sum of those.*