Assignment No. – 3

A. Create new class library project with name **EmployeeLib** and create following classes in this library

1. Write class Date with following members:
   int day; int month; int year;
   Provide following functionality:
   Default constructor
   Parameterized constructor
   Properties: Day, Month and Year
   AcceptDate() method to accept data from console.
   PrintDate() method to print data to console.
   bool IsValid(); method to check validity of date.
   string ToString(); method to return data of object in string format.
   Also provide a static member function that returns difference between two date objects in number of years.
   Overload "-" operator to perform the same job.

2. Write a class Person with following members:
   string name; bool gender; Date birth;
   string address;
   Provide following functionality:
   Default constructor
   Parameterized constructor
   Properties: Name, Gender, Birth, Address and Age(Read Only)
   Accept() method to accept data from console.
   Print() method to print data to console.
   string ToString(); method to return data of object in string format.
   Hint: Class will contain Date object for birth and Age will be calculculated using static method in Date class.

3. Write a class Employee with following members:
   int id; (Auto Generated)
   double salary; string designation;
   enum DepartmentType dept;

   Provide following functionality:
   Default constructor
   Parameterized constructor
   Properties: Id, Salary, Designation, Dept
   Accept() method to accept data from console.
   Print() method to print data to console.
   string ToString(); method to return data of object in string format.
   Hint: class must be inherited from Person class. Use static count for auto generating id.

4. Write a class Manager with following members:
   double bonus;
   Provide following functionality:
   Default constructor
   Parameterized constructor
   Properties: Bonus
   Accept() method to accept data from console.
   Print() method to print data to console.
   string ToString(); method to return data of object in string format.
   Hint: class must be inherited from Employee class so that designation is fixed i.e. "Manager".

5. Write a class Supervisor with following members:
   int subbordinates; (Number of assistants)
   Provide following functionality:
   Default constructor
   Parameterized constructor
   Properties: Subbordinates
   Accept() method to accept data from console.
   Print() method to print data to console.
   string ToString(); method to return data of object in string format.
   Hint: class must be inherited from Employee class so that designation is fixed i.e. "Supervisor".

6. Write a class WageEmp (Contract basis employee) with following members:
   int hours; int rate; (Per hour basis)
   Provide following functionality:
   Default constructor
   Parameterized constructor
   Properties: Hours, Rate
   Accept() method to accept data from console.
   Print() method to print data to console.
   string ToString(); method to return data of object in string format.
   Hint: class must be inherited from Employee class so that designation is fixed i.e. "Wage".

B. Create a console application with name **HRMS** and use the library "**EmployeeLib**" as private assembly and test above classes.