Employee Management

Scenario:
Create an Application for managing the Employee Details of PRM Group of company

The following are the expected options:

1. Add Department
Get the department name from user and display auto generated department id.

2. Add Employee:
Using this option employee is added to the existing department.
Get the Full Name, Date Of Birth, Experience, Designation, Basic Pay, Department ID and display auto generated employee id and gross salary

Following are the rules to add an employee
•Date of birth (Age should be more than 21 years),
•Designation (Employee/Manager), &
•Calculate gross pay based on designation
Employee: Basic Salary + Performance Allowance (i.e; 10 % Basic Salary).
Manager: Basic Salary + Performance Allowance (i.e; 10 % Basic Salary) + HRA (10% Basic Salary).
Add Employee method should return gross Salary if operation is successful otherwise return 0.
Employee should be added to an existing department and there can be only person with designation as manager in a department.

3. Edit Employee details:
Using this option, designation of an employee can be changed to manager

4. View Employee details: Using this option display an employee details either by employee id or by providing employee name (Implement using polymorphism)

5. Remove Employee: Remove an employee by providing employee id

6. View Statistics: Display the number of associate working in the each and every department

7. View All Department: Display all departments

Approach to solve the scenario.

Create Department class with the following properties

- DepartmentID – int

- DepartmentName – string

Create Employee class with the following properties

- EmployeeID - int
- FullName - string
- DateOfBirth - datetime
- Experience - int
- Designation -string
- BasicPay - int
- GrossPay -int
- DepartmentID – int

Create a company class with the following methods

- addDepartment(string deptName):int
- addEmployee(IEmployee e,out int id):int
- editEmployee(int employee):int
- viewEmployee(int id):IEmployee
- viewEmployee(string name):IEmployee
- deleteEmployee(int id):int
- viewStatistics(int id): int

Note:

- **Create Employee, Department and company class**
- **Create the interfaces IEmployee, IDepartment and ICompany**
- **Handle all possible exceptions**
- **Create default and parameterized constructors in Employee and Department class**.