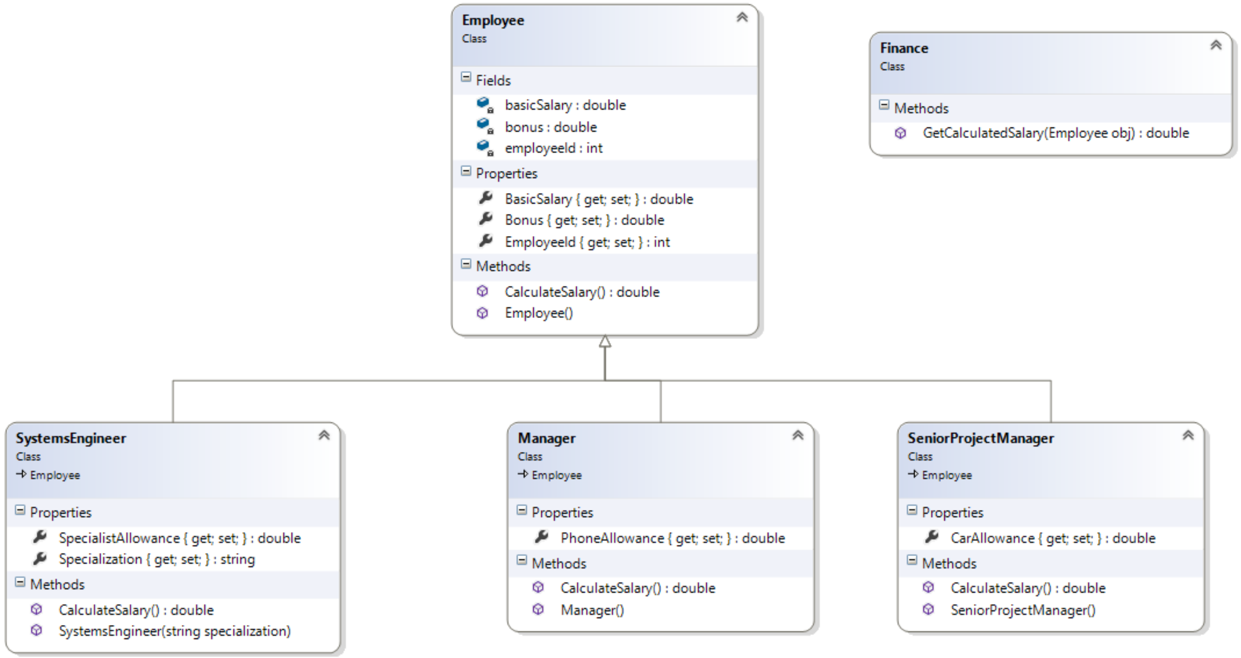
The Employee Management System wants to calculate the employee salary by setting appropriate values for allowances depending on the designation of the employee.

Refer the class diagram given below to implement the requirement.


Employee
Class
Fields
basicSalary : double
bonus : double
employeeId : int
Properties
BasicSalary { get; set; } : double
Bonus { get; set; } : double
EmployeeId { get; set; } : int
Methods
CalculateSalary() : double
Employee()
Finance
Class
Methods
GetCalculatedSalary(Employee obj) : double
SystemsEngineer
Class
→ Employee
Properties
SpecialistAllowance { get; set; } : double
Specialization { get; set; } : string
Methods
CalculateSalary() : double
SystemsEngineer(string specialization)
Manager
Class
→ Employee
Properties
PhoneAllowance { get; set; } : double
Methods
CalculateSalary() : double
Manager()
SeniorProjectManager
Class
→ Employee
Properties
CarAllowance { get; set; } : double
Methods
CalculateSalary() : double
SeniorProjectManager()

- Employee Class:
  - Default Constructor – Employee():
    - Initialize the value for BasicSalary as INR 10000/-.
  - CalculateSalary() method:
    - This is a virtual method which will be further overridden in the child classes. This method is expected to return the BasicSalary.

- SystemsEngineer Class
  - Specialization and SpecialistAllowance are Auto-Implemented properties.
  - Parameterized Constructor - SystemsEngineer (string specialization):
    - Invoke the Base Class constructor.
    - Initialize the Specialization Property to the value passed as argument.
  - CalculateSalary() method:

        - If Specialization is in any of the “C#” or “Java” or “SQL”, the SpecialistAllowance should be set to INR 3000/-.
        - For all other cases it should be set to 0.0
        - Salary is calculated as the sum of BasicSalary and SpecialistAllowance
        - Return Salary

- Manager Class
    - PhoneAllowance is an Auto-Implemented property.
    - Default Constructor – Manager():
        - Initialize the PhoneAllowance to INR 4000/-.
    - CalculateSalary() method:
        - Salary is calculated as the sum of BasicSalary and PhoneAllowance
        - Return Salary

- SeniorProjectManager Class:
    - CarAllowance is the Auto-Implemented property.
    - Default Constructor – SeniorProjectManager():
        - Initialize the CarAllowance to INR 6000/-.
    - CalculateSalary() method:
        - Salary is calculated as the sum of BasicSalary and CarAllowance
        - Return Salary

- Finance Class:
    - GetCalculatedSalary (Employee obj) method:
        - If the object passed is of type SystemsEngineer, the property Bonus is set to INR 5000/-
        - If the object passed is of type Manager, the property Bonus is set to INR 9000/-
        - If the object passed is of type SeniorProjectManager, the property Bonus is set to INR 15000/-
        - In all other cases Bonus should be 0.0

    - Invoke the method CalculateSalary() and add the returned value to Bonus.
    - Return the sum as the Total Salary

Note:

- Create an Instance of either of ‘SystemsEngineer’ or ‘Manager’ or ‘SeniorProjectManager’ with base class reference.
- Create an instance of Finance Class.
- Invoke the GetCalculatedSalary method, print the value returned and observe the output.