Q1.

Write a program to implement below given requirement.

Take the Initial deposit amount and the number of years for which interest calculated.

Use below table to understand the pattern and calculate the total amount.

Year	Deposit(DT)	Amount eligible for interest(EI = CA of previous year+DT)	Interest at9%(I)	Closing Amount at End of Year (CA = EI+I)	Comments
1	10000	10000	900	10900	Interest is 10000 X 0.09, amount at the end of year is amount invested + interested
2	11000	21900	1971	23871	Interest is (10900+11000) X 0.09 and amount at the end of year is 21900+1971
3	12100	35971	3237.39	39208.39	Interest is (35971+3237)X0.09 and amount at the end of year is 35971+3237.39

Q2.

Write an application that calculates and displays the weekly salary for an employee. Create a class employee to consist of the following information: -

Data members

hr_pay float.

hr_reg int.

hr_over int.

Member Functions

GetData () used to get the data from the user.

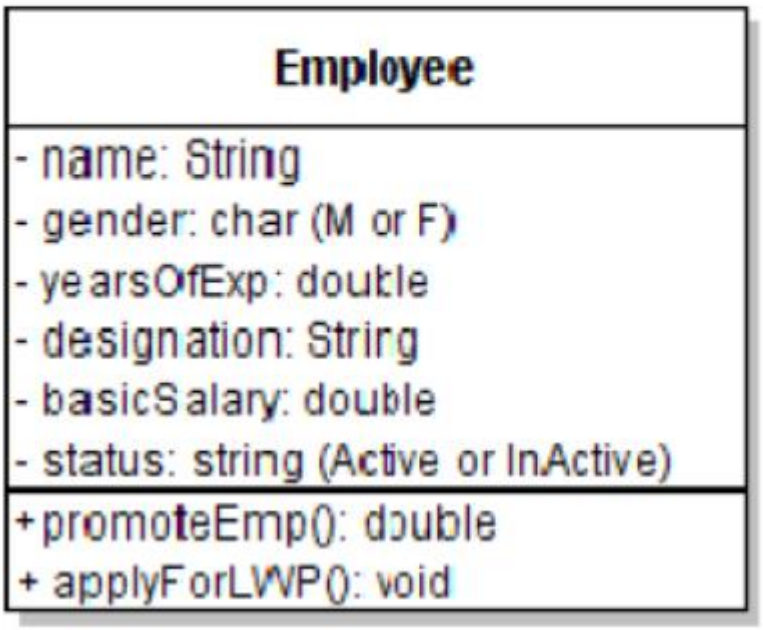
CalculateSalary() is used to calculate weekly salary, calculated in two ways. Normal rates are applicable for the regular hours. For overtime hours rate will be 1.5 times to the original one. This method returns the total weekly salary, which is the sum of both types.

Display () to display the result.

Normal rates for the regular hours is 500

Q3.

Define Employee class as per the diagram given below:



(PTO)

Whenever Employee object gets created, the minimum information to be provided is name and gender. For a fresher, the initial designation will always be ASE and basic salary will be Rs. 10000. However, for an experienced person, when creating Employee object, the years of experience should also be provided. If years of experience is greater than or equal to 3 years, then designation will be ITA and basic salary will be Rs 15000, else set these attributes as that for a fresher.

For any employee created, status will always be Active initially.

The class implements the following behaviors:

1. promoteEmp: This behavior promotes the employee to the next designation as given below and returns the new salary after promotion:

   ASE will be promoted to ITA (salary incremented by 5%).

   ITA will be promoted to AST (salary incremented by 8%).

   AST will be promoted to ASC(salary incremented by 10%).

   ASC is the top designation.

2. **ApplyForLWP:** This behavior will change the status of employee to InActive and set basic salary to 0.

Note:

1) Define all the getters and setters.

2) Data validations not required.