

## Exercise 1

A company is associated with different types of people like employees and customers. Every employee and customer has some common details stored such as name, age and address. A company has many employees. A special category of an employee is a salesperson. A company has many branches, but at least two instances as the corporate office and the registered office. Every branch has an address and a branch manager who is also an employee. A branch manager has in addition to his salary special allowances given for managing the branch. All employees have employee Id, department, basic salary and band. The salary of each employee is computed based on his/her basic salary and band (level). The allowances depend on the band and are computed as follows:

<u>Band</u>	<u>Rate of Allowance</u>
<=2	30%
<=4	40%
<=6	50%
>8	65%

A salesperson has in addition to employee details, fields like sales achieved for the month and the actual target.

To compute the salary of the salespersons, add the incentives to their salary. Their salaries are however computed similar to that of the employees. The incentives are computed as follows:

$$(\text{Sales} - \text{Target}) * 30\%$$

A salary calculator is used to compute the both salary and incentives. A new salary calculator may be used for the new recruits subsequently.

As regards to the customers, in addition to personal details, they have a customer id and date of membership. A customer may also register if needed by paying the fees to enjoy special privileges. The fees and date of registration are also stored in this case. A customer as such does not have any registration fees.

Customers who register paying the fees have information such as type, fees applicable and discounts that the customer is eligible for.

The company has details like name and date of incorporation. Based on the details associated with a company, it is possible to get the details of:

- An employee or a customer by their id
- Total salary that needs to be disbursed for all the employees
- Total registration fees collected from all the registered customers
- Number of customers
- Number of employees and so on

The participants are required to identify the different objects from the above problem statement and realize classes from the same.