

Ex 8:

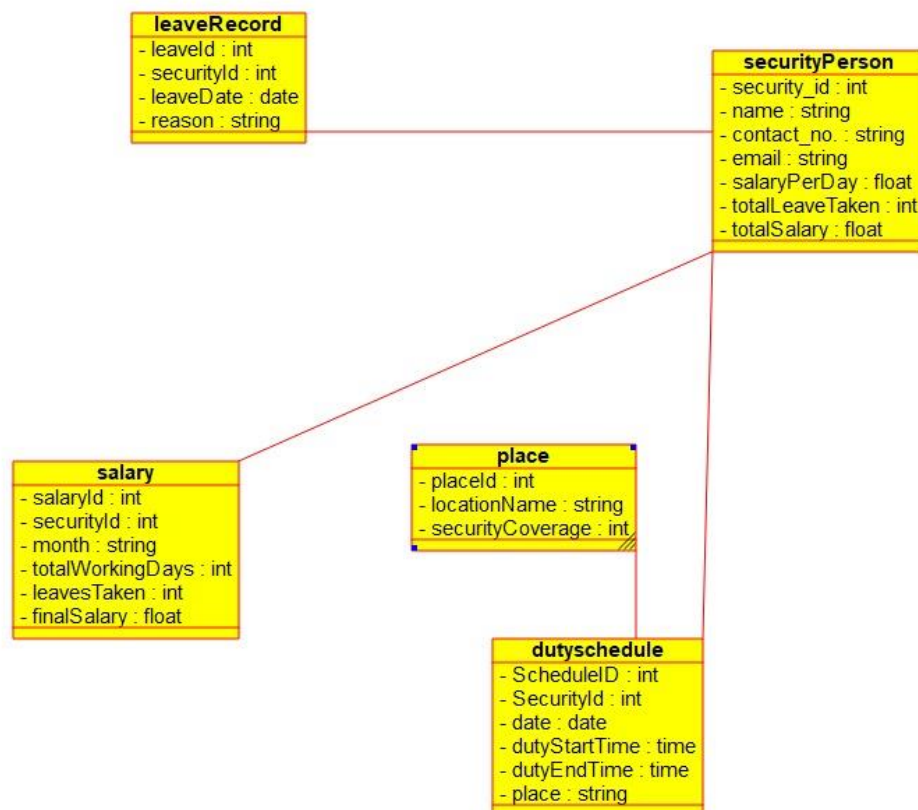
A college has more than thousand security persons, who are instructed to give duties at different places within the campus. Additionally, they also maintain a routine, which contains all information, such as Date, Duty Start Time, Duty End Time, and Place. Most importantly, all the places are covered by at least one security person. If a security person takes leave, manual entry is done against that person. Finally, at the end of a month, the security persons get paid for their duties, while considering the number of leaves as well. You can see that the manual calculation/operation is a heavy task for the security manager. Therefore, the objective is to build an Online security management system using class diagram through which entire security system within the campus can be controlled in an efficient manner

Aim:

To design a class diagram for an Online Security Management System that efficiently manages security personnel assignments, leaves, and payments within a college campus.

Procedure:

1. Identify key classes: SecurityPerson, Duty, Leave, Payment, SecurityManager, and Place.
2. Define attributes and methods for each class (e.g., assign duties, process payments).
3. Establish relationships (e.g., SecurityPerson has multiple Duties, Payments).
4. Design the class diagram with appropriate associations.
5. Implement methods for assignments, leave management, and payment calculations.

Output: Class diagram**Result:**

The system streamlines security management, reducing manual work, automating duty assignments, leave tracking, and payment processing, and enhancing operational efficiency.