Experiment:9

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 diagrams through which the entire security system within the campus can be controlled in an efficient manner.

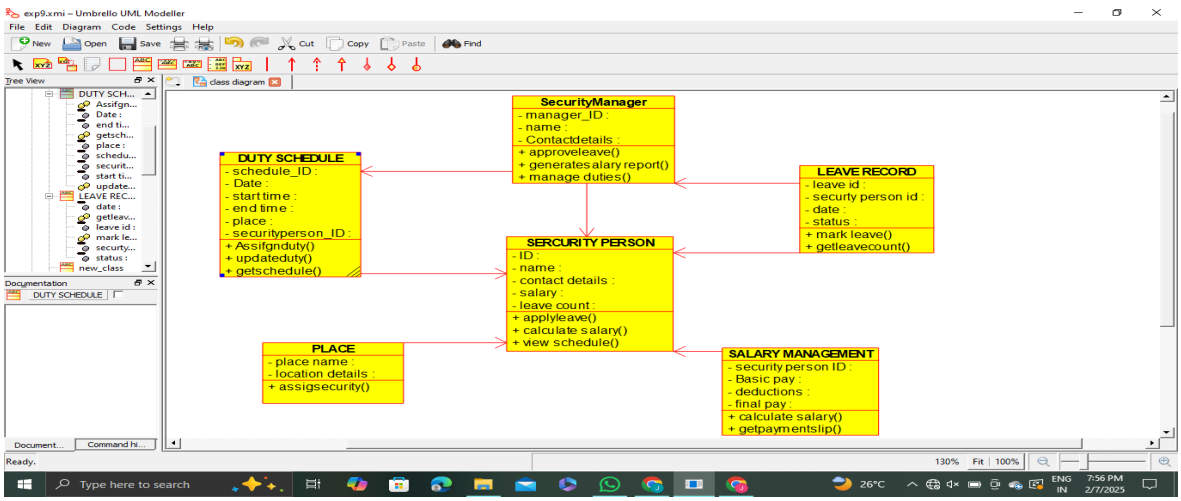
Aim:

To design an Online Security Management System using a Class Diagram, streamlining the management of security personnel, duties, leave management, and payroll within the campus.

Procedures:

1. Identify the main classes such as SecurityPerson, Duty, Leave, Payroll, and CampusPlace.
2. Define attributes and methods for each class, like DutyStartTime, DutyEndTime, and CalculatePayroll().
3. Establish relationships such as associations and dependencies between SecurityPerson and Duty.
4. Include leave management by defining methods for ManualLeaveEntry and CalculateLeave.
5. Create a Class Diagram to represent these classes, their attributes, methods, and relationships efficiently.

Class Diagram:



Result:

The Class Diagram for the Online Security Management System was successfully developed, representing the structure and relationships of classes to manage duties, leave, and payroll.