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

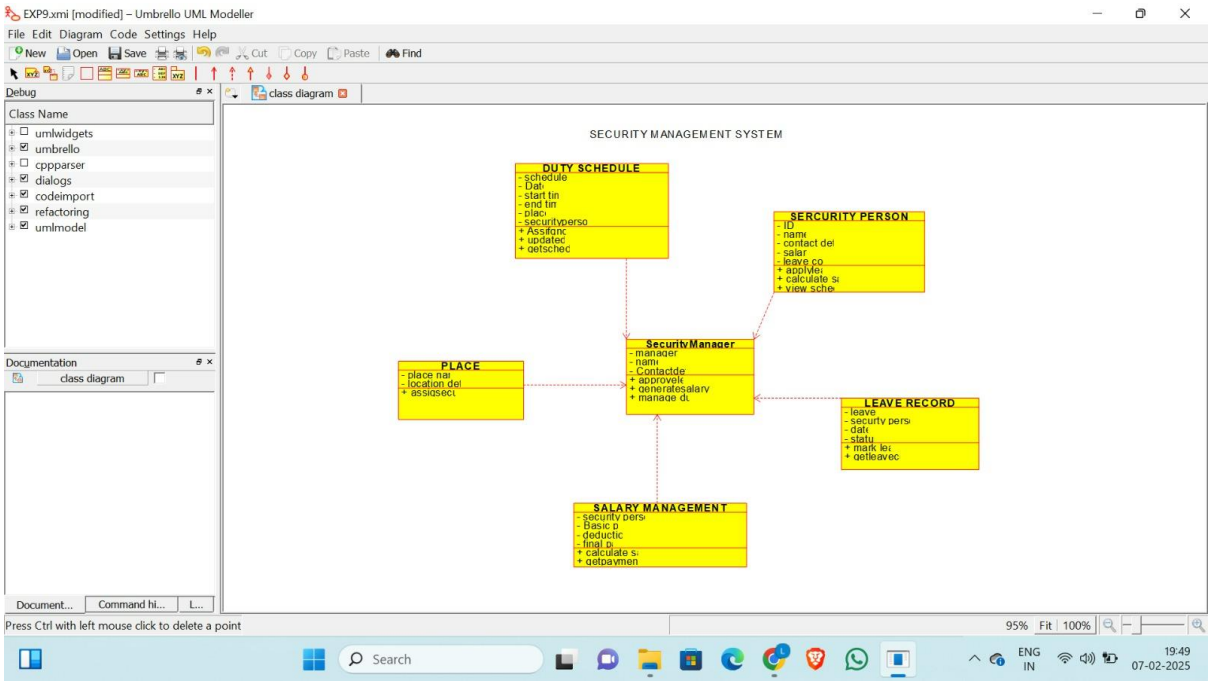
Aim

To design and develop an **Online Security Management** System that efficiently manages the duties, leave records, and payment calculations for the security personnel within the campus.

Procedure:

1. Identify key entities: Security Person, Duty, Leave, and Payment.
2. Define attributes for each entity, such as Date, Duty Start Time, Duty End Time, Place, and Leave Type.
3. Establish relationships between entities (e.g., a Security Person can have multiple Duties, a Duty is assigned to one or more Security Persons).
4. Implement a class diagram illustrating the system structure, including classes, relationships, and methods.
5. Develop features to track leave, calculate duty hours, and manage payments at the end of the month.
6. Ensure all places within the campus are covered by at least one security person.
7. Implement an interface for manual entry of leave and duty data.

CLASS DIAGRAM



Result:

A class diagram for the Online Security Management System has been successfully designed, illustrating the structure of key entities such as Security Person, Duty, Leave, and Payment.