Exercise 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

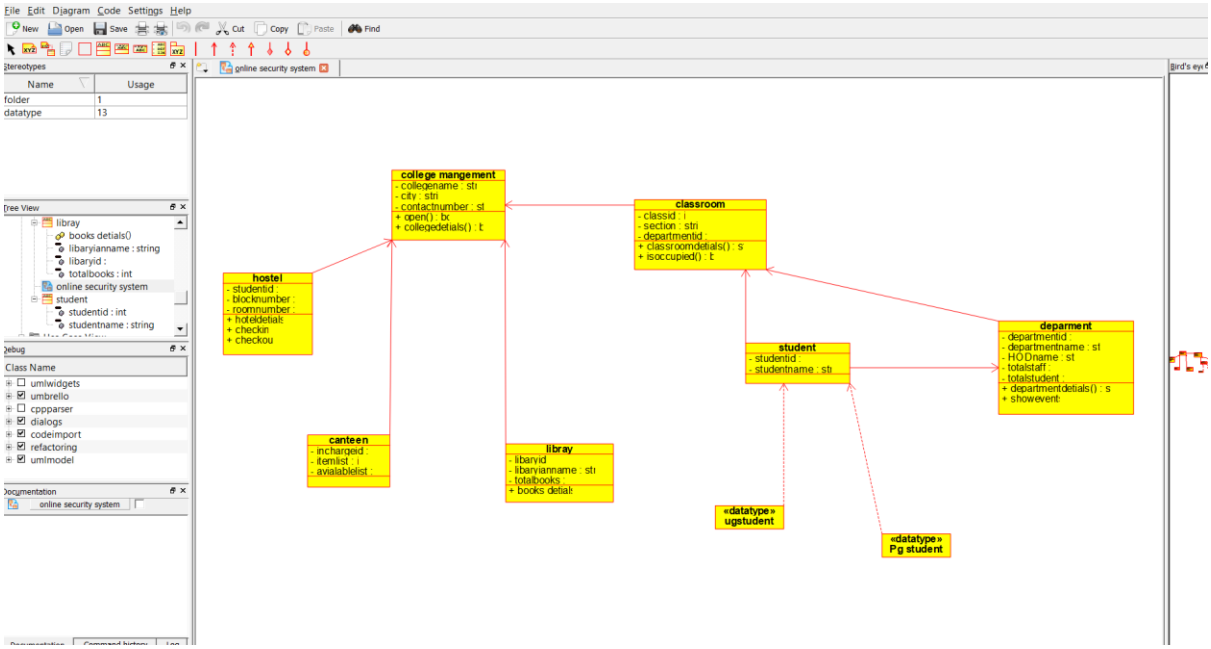
Aim

The aim of this project is to develop an **Online Security Management System** for a college campus to efficiently manage security personnel, their duty schedules, leaves, and salary calculations. The system will automate the manual processes, ensuring transparency, reducing human errors, and improving overall security management.

Procedure

1. **Requirement Analysis** – Identify key entities (SecurityPerson, DutySchedule, LeaveRecord, Payment) and system functionalities.
2. **Class Diagram Design** – Define classes, attributes, methods, and relationships.
3. **Database & System Design** – Structure tables for duty schedules, leaves, and payroll.
4. **Implementation** – Develop a web-based system for duty management, leave tracking, and salary calculation.
5. **Testing & Deployment** – Conduct testing and deploy for security management use.

Output



Result

Thus the UML diagram for the College Online Security System has been implemented successfully.