#### **EXERCISE.NO: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 manners.

#### AIM:

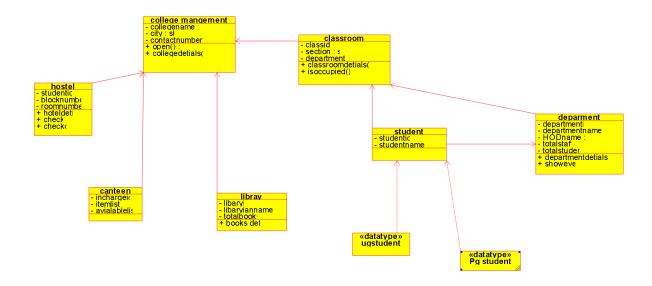
To observe and analyze the manual processes involved in managing security personnel within the college campus and propose an efficient Online Security Management System. The focus is on duty scheduling, leave management, and payroll calculation using a Class Diagram approach to streamline operations.

#### **PROCEDURE:**

- STEP 1: Monitor how security duties are assigned and how routines are maintained manually.
- STEP 2: Observe the process of leave management and how it impacts duty coverage.
- STEP 3: Note inefficiencies, such as manual errors in duty allocation, difficulty in tracking leaves, and complexity in salary calculations.
- STEP 4: Identify key functions needed for the new system: duty scheduling, leave tracking, automated salary calculation, and report generation.
- STEP 5: Create a UML Class Diagram that represents the entities, attributes, and relationships within the system.
- STEP 6: Evaluate how the online system will reduce manual workload, improve accuracy, and enhance overall management efficiency.

# **USE CASE DIAGRAM:**

# **COLLEGE MANAGEMENT SYSTEM**



# **RESULT:**

Thus the Class diagram for the College Management System has been implemented successfully.