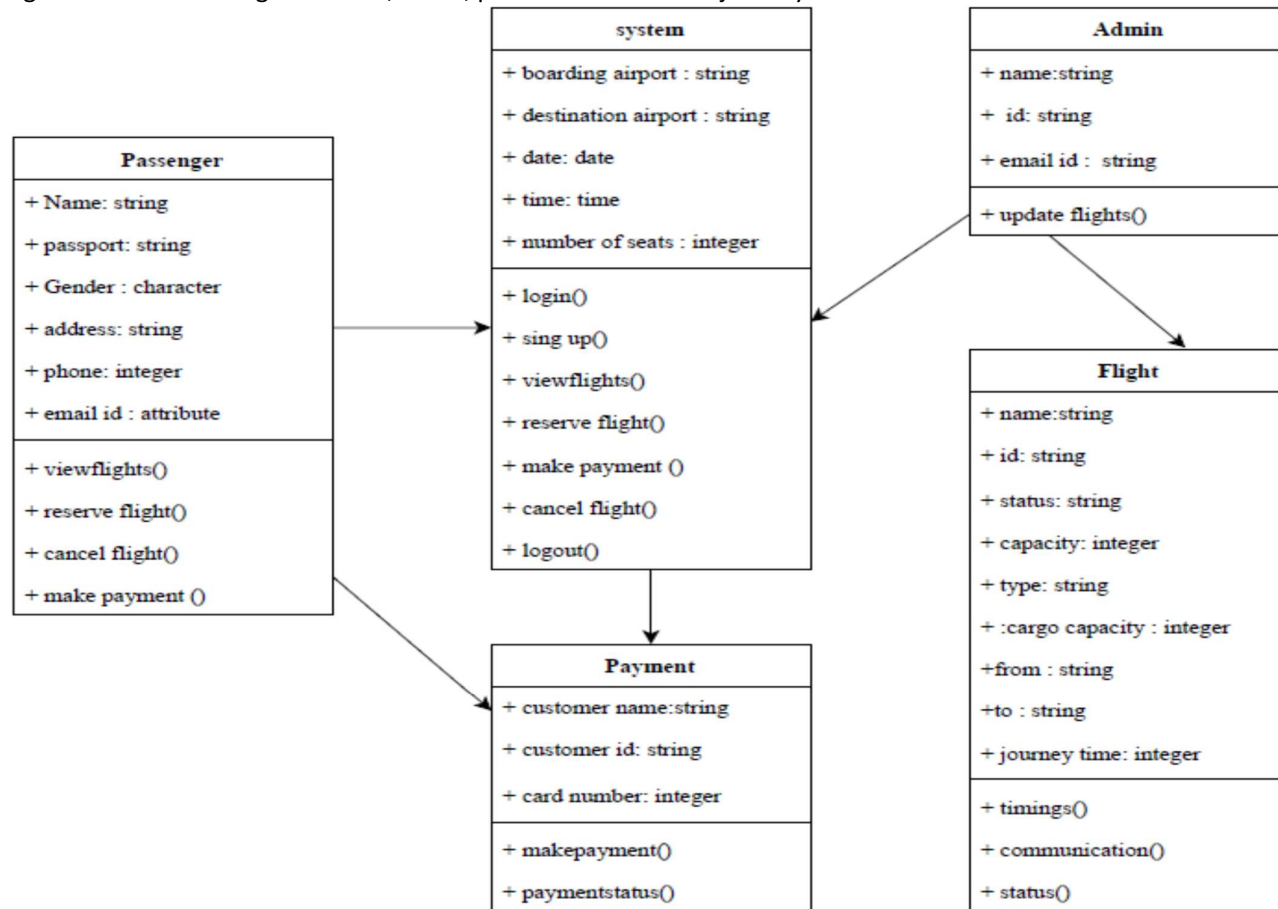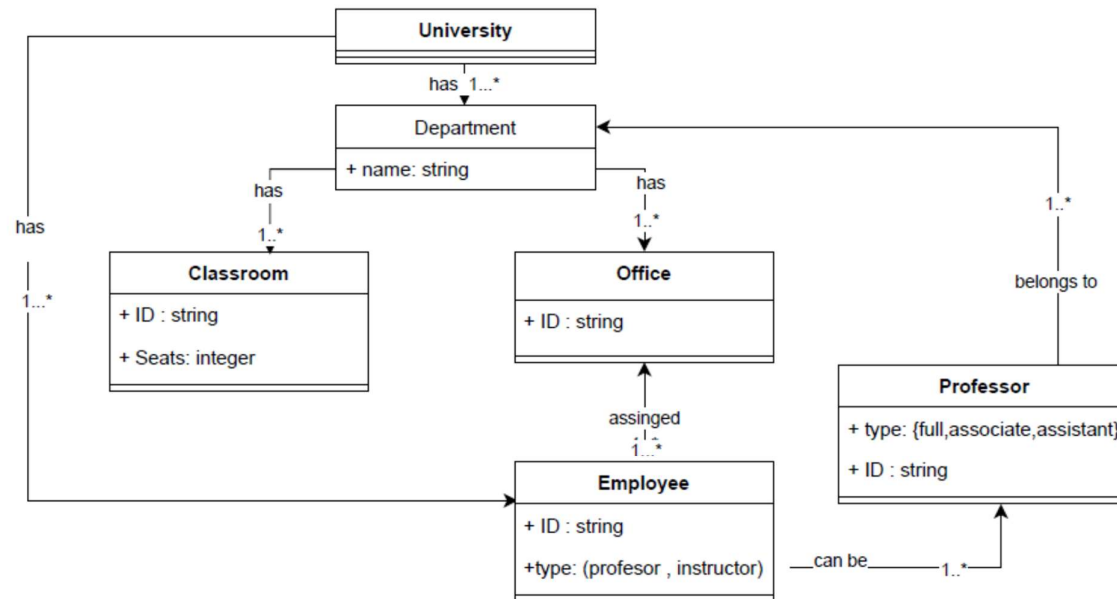Pinninti Sai Sukumar

1. Design and draw UML class diagram to represent an airline reservation system. The system enables the customer to search for airline flight on a specified date and choose a flight based on some details like availability. The customer can reserve a flight or cancel his reservation. The system displays all the flight details such as flight number, name, price and duration of journey.

system

+ boarding airport : string
+ destination airport : string
+ date: date
+ time: time
+ number of seats : integer

+ login()
+ sing up()
+ viewflights()
+ reserve flight()
+ make payment ()
+ cancel flight()
+ logout()

Admin

+ name:string
+ id: string
+ email id : string

+ update flights()

Passenger

+ Name: string
+ passport: string
+ Gender : character
+ address: string
+ phone: integer
+ email id : attribute

+ viewflights()
+ reserve flight()
+ cancel flight()
+ make payment ()

Flight

+ name:string
+ id: string
+ status: string
+ capacity: integer
+ type: string
+ :cargo capacity : integer
+from : string
+to : string
+ journey time: integer

+ timings()
+ communication()
+ status()

Payment

+ customer name:string
+ customer id: string
+ card number: integer

+ makepayment()
+ paymentstatus()

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2. Design and draw UML class diagram with attributes, behaviour, and class relationships for the following scenario.

3. In a university there are various departments. A department has a name and is associated to classrooms and offices. An employee working at the university has a unique Id and can be a professor or an instructor. A professor can be a full professor or associate professor, or assistant professor and he/she belongs to a department in the university. Offices and classrooms also have unique IDs and classrooms have fixed number of seats. Also, every employee is assigned an office.
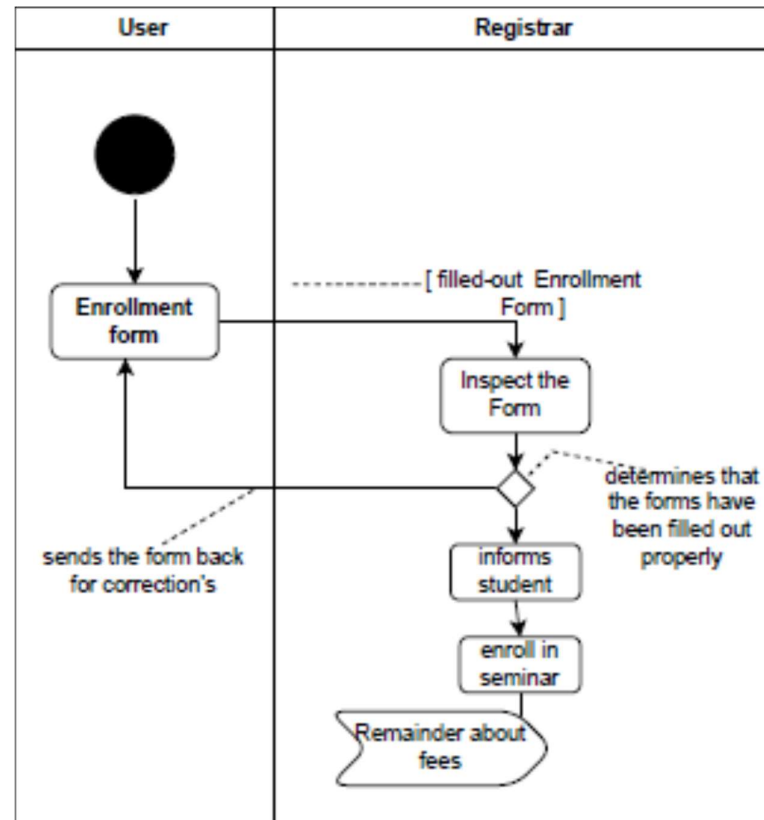
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4. Draw an activity diagram for the given scenario where a student needs to enroll with the university for the given course.
    Process for student enrolment in the university is as follows:

    - An applicant wants to enrol in the university.
    - The applicant hands a filled-out copy of Enrolment Form.
    - The registrar inspects the forms.
    - The registrar determines that the forms have been filled out properly.
    - The registrar informs student to attend in university overview presentation.
    - The registrar helps the student to enrol in seminars
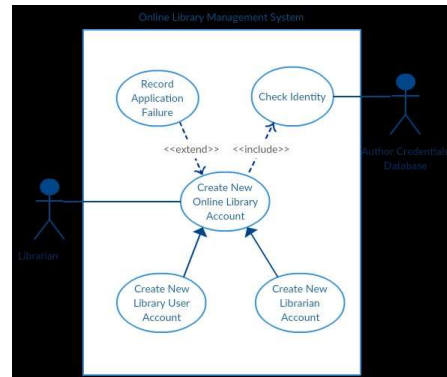   - The registrar asks the student to pay for the initial tuition.

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User	Registrar

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5. A scenario of Online Library Management System is given below. You need to refer the use case diagram and moving further need to create a sequence diagram for the same.

Here are the steps that occur in the given use case named 'Create New Library User Account'.
- The librarian requests the system to create a new online library account
- The librarian then selects the library user account type
- The librarian enters the user's details
- The user's details are checked using the user Credentials Database
- The new library user account is created
- A summary of the new account's details is then emailed to the user.

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