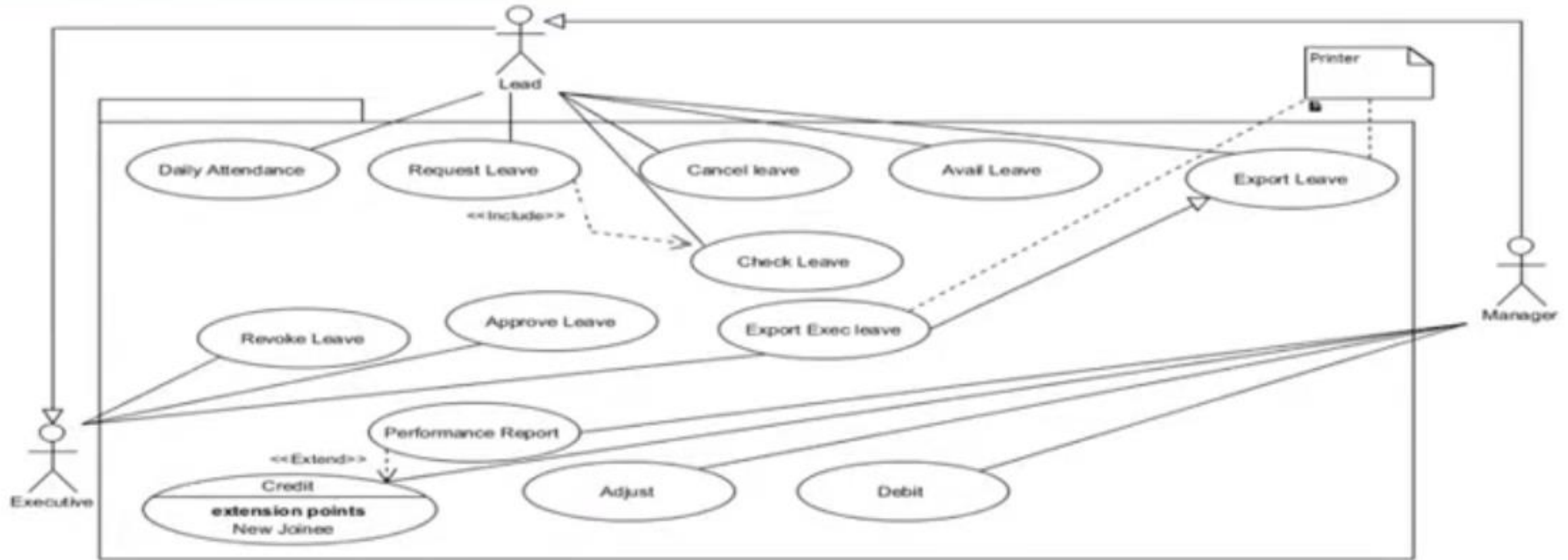


# Class Diagram for Leave Management System

# Use Case Diagram for Leave Management System



Not all use cases are shown in details

# Class Diagram for Leave Management System

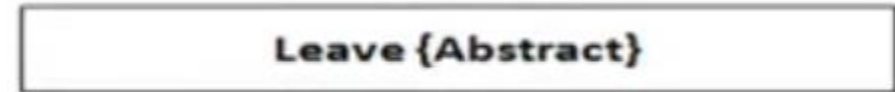
We now derive the Class Diagram for LMS. The steps involved are:

- Identify Classes {Abstract Classes}
- Identify Properties and Operations
- Identify the Relationships among Classes
- Class Diagram

# Class Diagram for Leave Management System

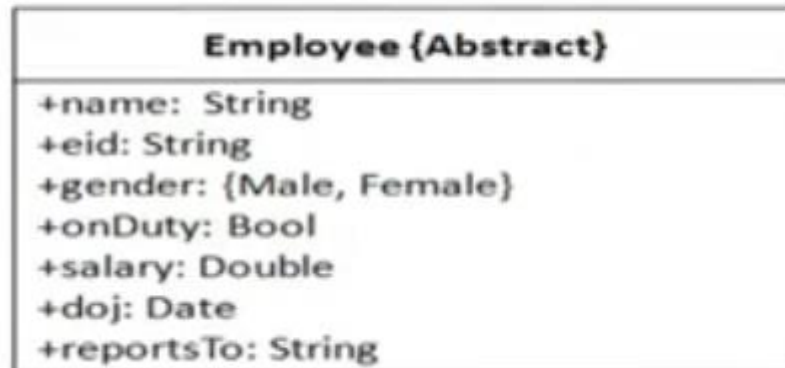
- Identification of Abstract Classes

- Reading through the specification of the Leave Management System, we identify the various instances, that is, objects
- We categorize them into two abstract classes: Employee and Leave



- Identification of Properties (Attributes)

Properties of the two abstract class of LMS



# Class Diagram for Leave Management System

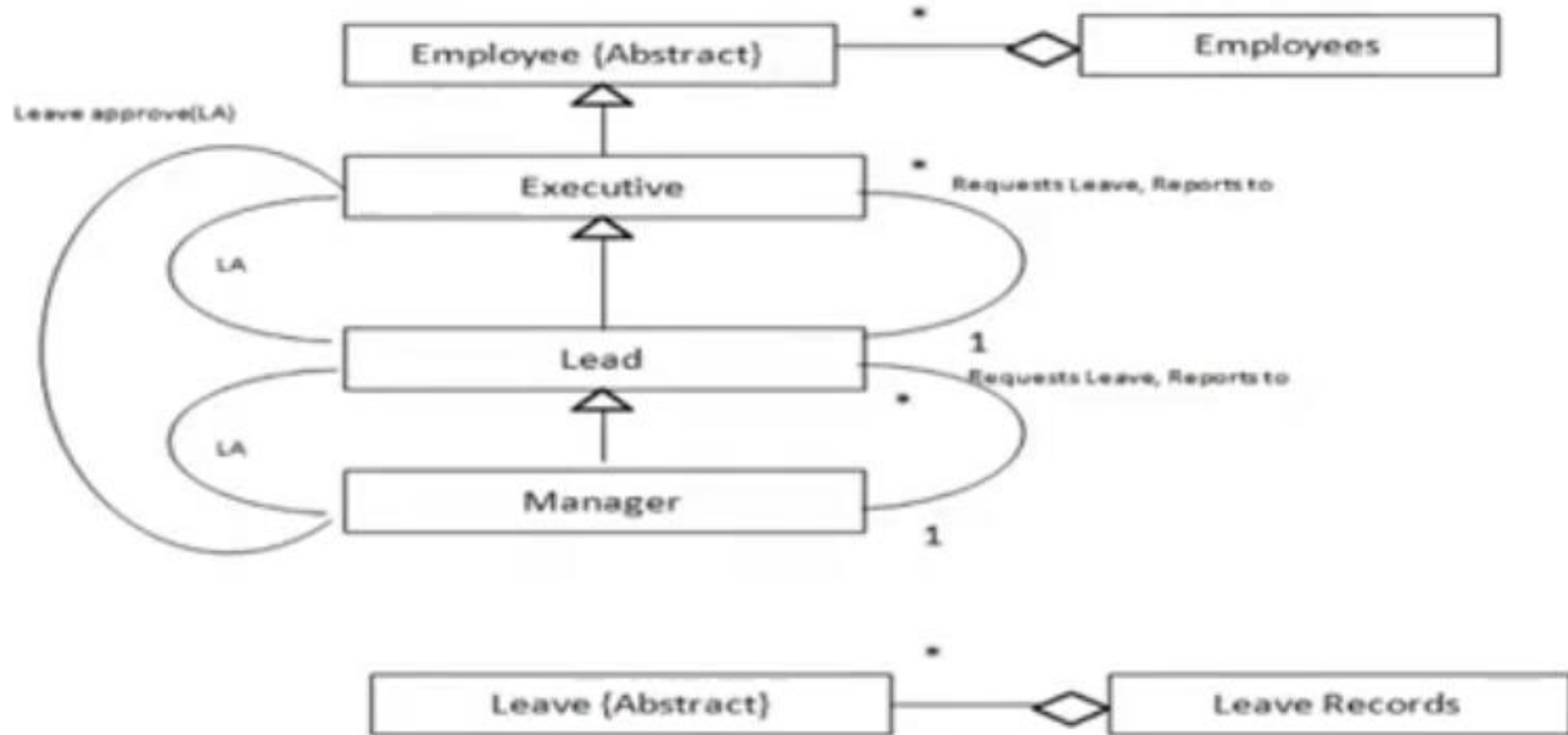
- Identification of Operations (Methods)

| Employee {Abstract}  |
|--|
| +name: String<br>+eid: String<br>+gender: {Male, Female}<br>+onDuty: Bool<br>+salary: Double<br>+doj: Date<br>+reportsTo: String |
| +recordAttendance():Bool<br>+requestLeave(): Void<br>+cancelLeave(): Void<br>+availLeave(): Void<br>+exportLeave(): Leave        |

| Leave {Abstract}  |
|---|
| +startDate: Date<br>+endDate: Date<br>+status: {New, Approved}<br>+isValid: Bool<br>+type: {}<br>+approveCond: Bool<br>+eid: String |
| +type(): String<br>+approveLeave(Employee e): Bool<br>+isValid(): Bool  |

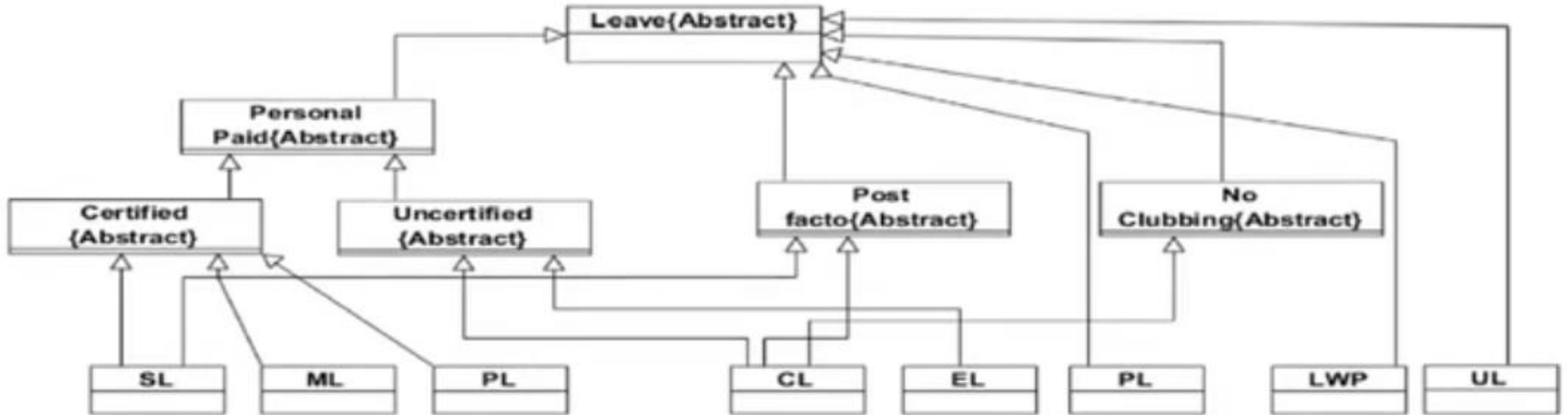
# Class Diagram for Leave Management System

- Identification of Associations

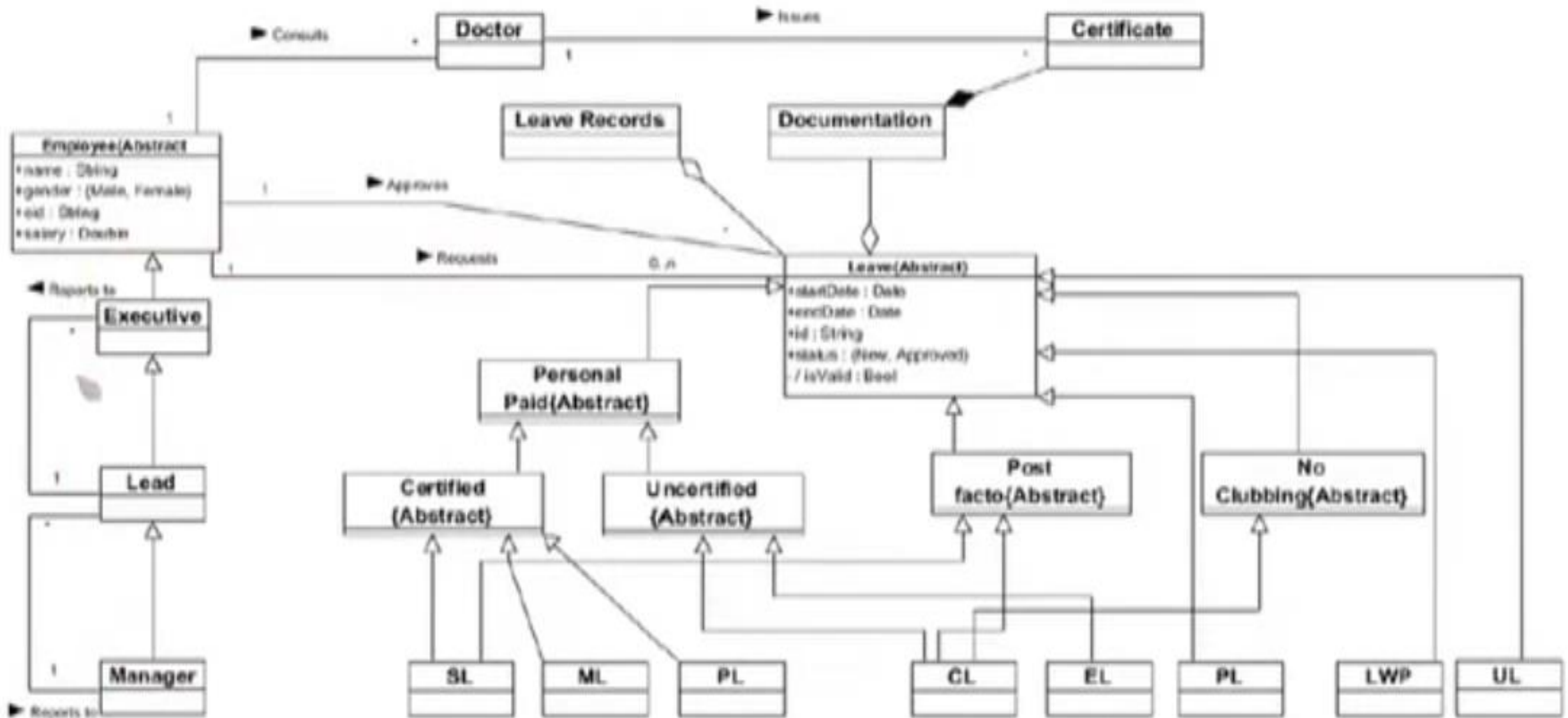


# Class Diagram for Leave Management System

- Identification of Generalizations



# Class Diagram for Leave Management System





# Summary

- A partial Class Diagram for the Leave Management System (LMS)

# Reference

- Source: NPTEL **Object-Oriented Analysis and Design**, by Prof. Partha Pratim Das Prof. Samiran Chattopadhyay Prof. Kausik Datta IIT Kharagpur
- <https://nptel.ac.in/courses/106105153>