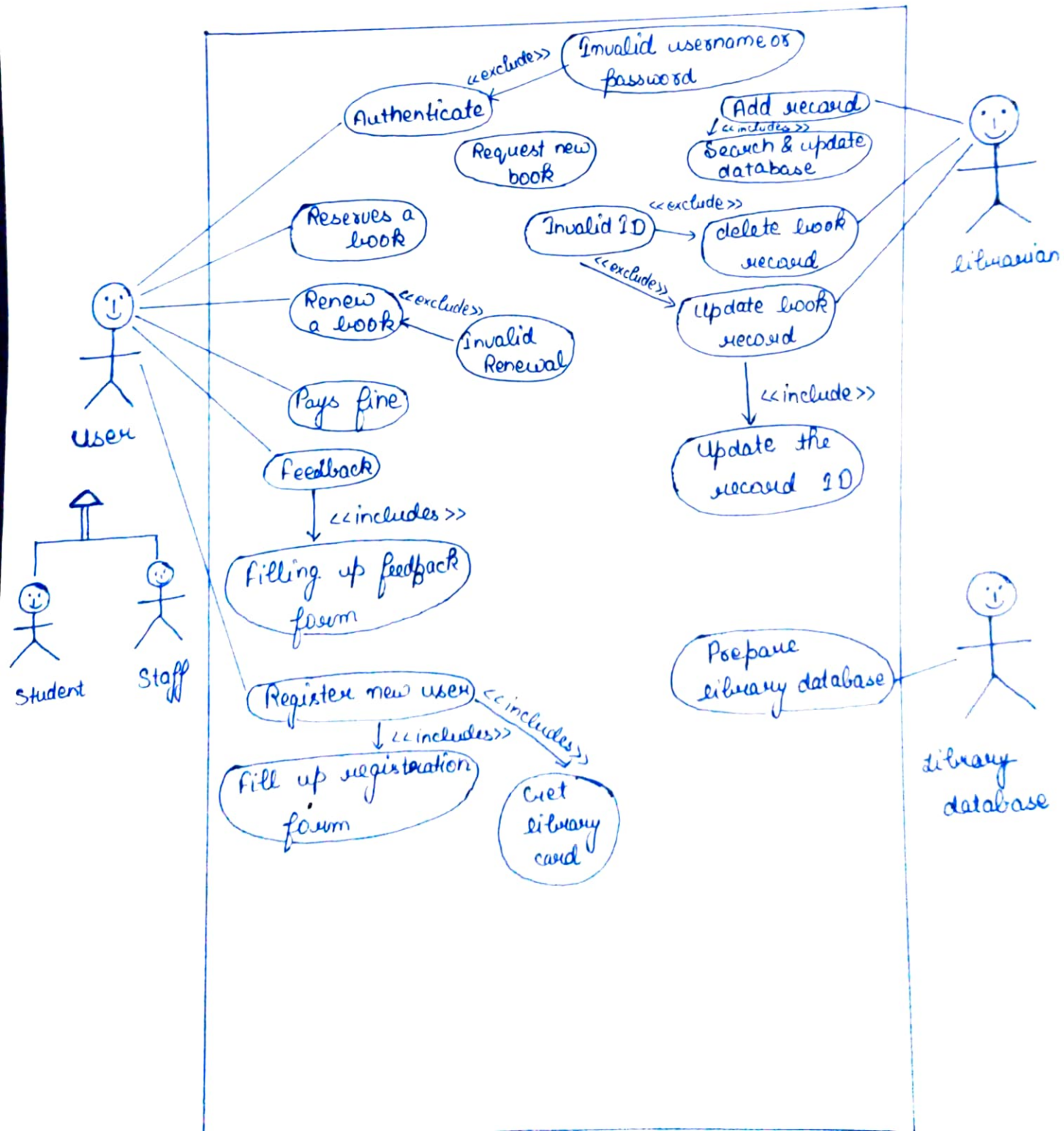


Software Engineering Assignment

Name: Kartikey
Privastava
Roll NO: 29
Section: L

Software Engineering

Q.1) Consider the problem of library management system and design the following :-
→ Use Case Diagram



ii) Use Cases -

Use cases diagram referred as Behaviour model or diagram it simply describe and display the relation or interaction b/w the user and customer and providers of application or the system.

Here, we will understand the designing use case diagram for the library management system. Some scenarios of the system are as follows -

- 1) User who registers himself as a new initially is regarded as staff or student for the library system.
 - For the user to get registered as a new user registration forms are available that is needed to fulfilled by the user.
 - After registration, a library card, an ID is assigned to cardholder or user.
- 2) After getting the library card, a new book is requested by the user as per the requirement.
- 3) After getting the request, the ~~else~~ desired book is reviewed by the user that mean and no other user by the request for the book.
- 4) Now, the user can renew a book that means the user can get a new due date for the desired book if the user has renewed them.
- 5) If the user somehow forget to return the book before the due date, then the user has to pay fine or if the user forgets to renew the book till the due date then the book will be overdue and user have to pay fine.

6) User can fill the feedback form available if they want to.

7) Librarian has a key role in the system, librarian add ~~and~~ the record in the library data base about each student are user every time returning the book or issuing the book, on paying fine.

8) Librarian also deletes the record of a particular student if the student leaves the college or passed out from the college if the book no longer exists in the library then the record of the particular book is also deleted.

9) Updating database is the important role of librarian.

iii) Design the DFD (conkrt level and level 1)

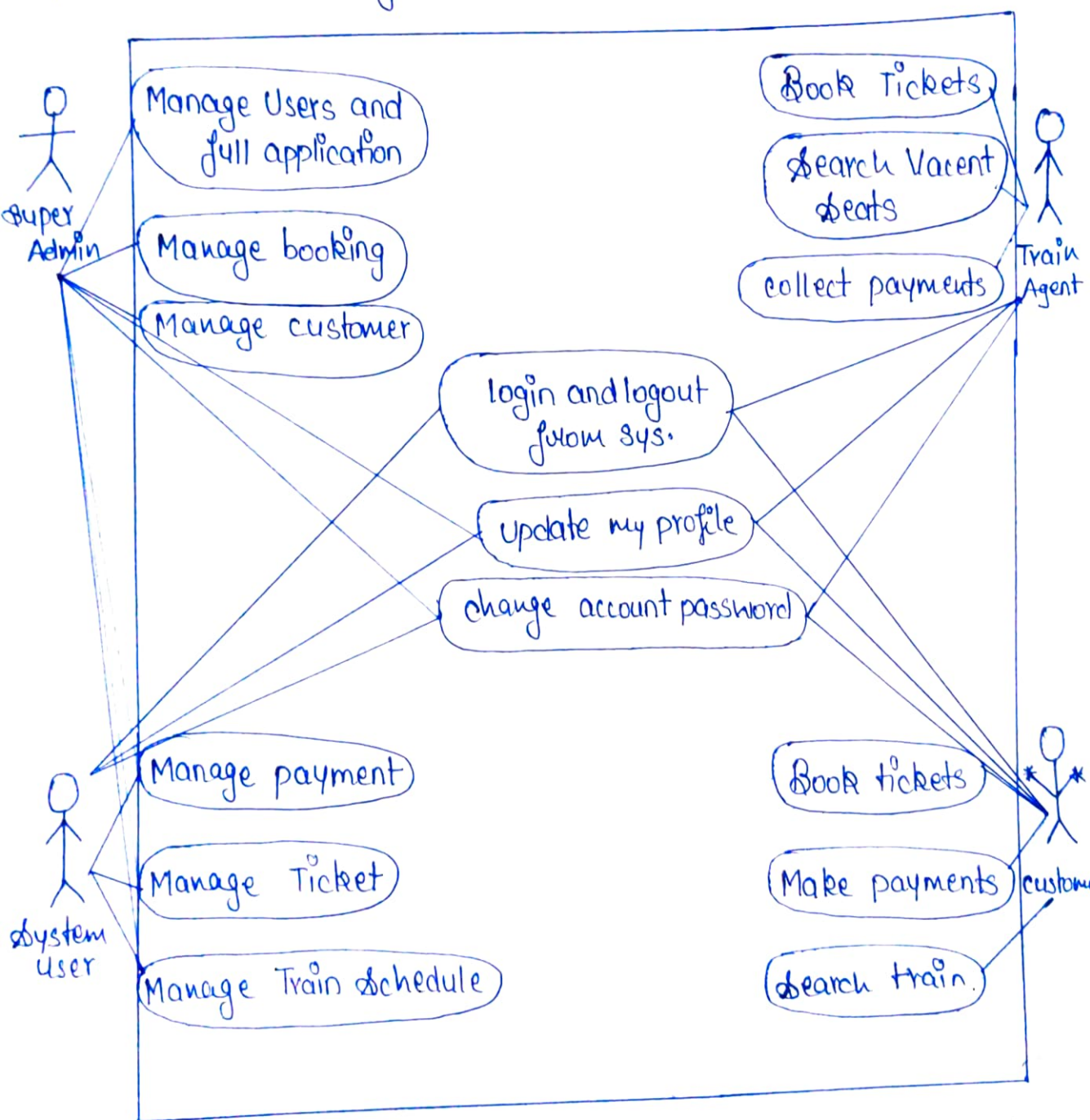
Data flow diagram :

Depicts the flow of information and the transformation applied when a data moves in and out from a system the overall system is represented and described using input, processing and output in the DFD. The input can be-

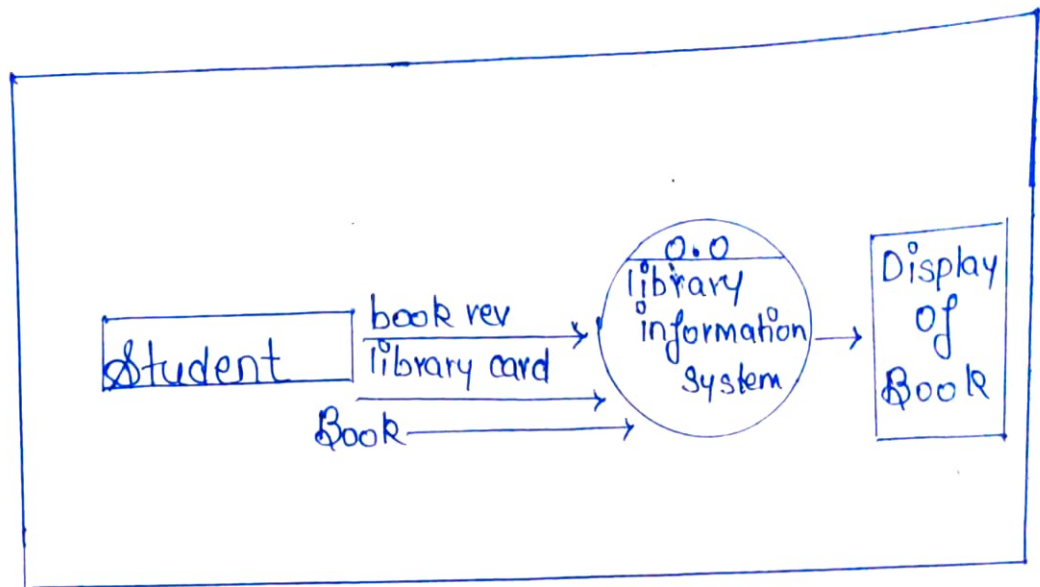
- Book request when a student request for a book
- library card when the student has to show or submit whsher identity as a proof.

Q.2) Consider the problem of Railway reservation system and design the following.

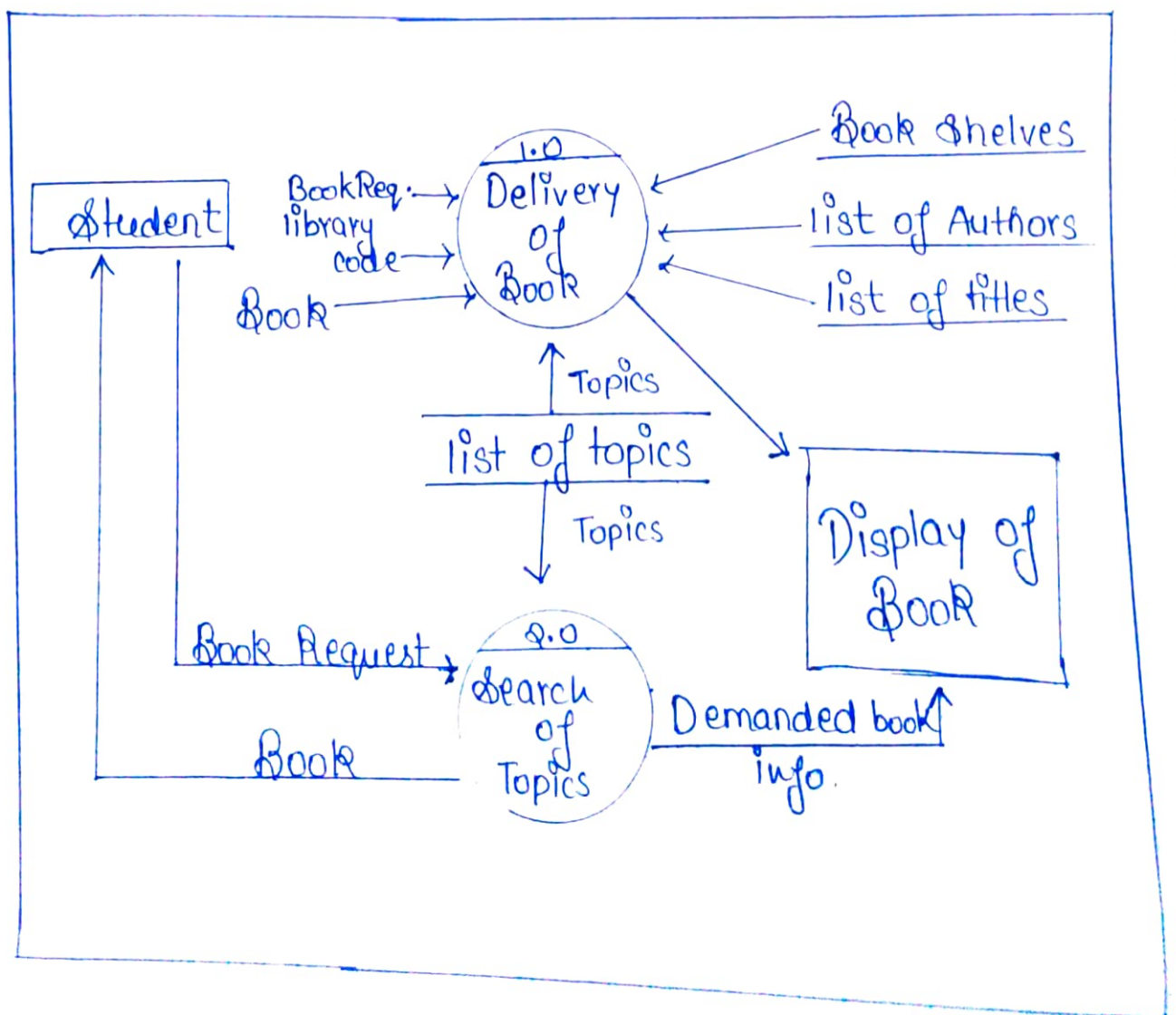
1) Use Case diagram:



1) Level 0 DED (context level):



2) Level 1 DED :



ii) Use Case :

This use case diagram is a graphic depiction of the interactions among the elements of Railway Reservation System. it represents the methodology used in system analysis to identify, clarify and organize system requirements of railways reservation system.

The Relationship b/w and among the actions and the use case of Railway Reservation System:

• Super admin entity :

Use cases of Super Admin entity are to manage trains, manage tickets, manage booking, manage customer, manage payment, manage train Route, manage train schedule, manage user and full railway reservation system operations.

• System user entity:

Use cases of System user are manage train, manage ticket, manage booking, manage customer, manage payment, etc.

• Ticket agent entity :

Use cases of Ticket agent are Book tickets, Search vacant seats, collect payment.

• Customer entity :

Use cases of customer entity are Search Trains, Book tickets, Make Payments.