Types of UML diagrams:-

2 main categories:-

① Structure diagrams :- shows the things in modelled system

② Behavioral diagrams :- shows what should happened in a system

1) Structure Diagrams:-

- class diagram
- Component diagram
- Deployment diagram
- Object diagram
- package diagram
- profile diagram
- Composite structure diagram

2) Behavioral diagrams

- usecase diagram
- Activity "
- statemachine diagram
- sequence diagram
- communication diagram
- Interaction overview diagram
- Timing diagram

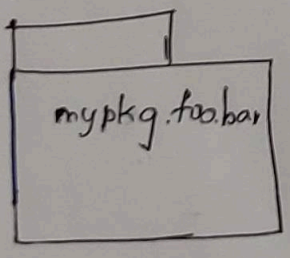
*package diagram:-

↳ Package diagram shows dependencies b/n diff packages in a system.

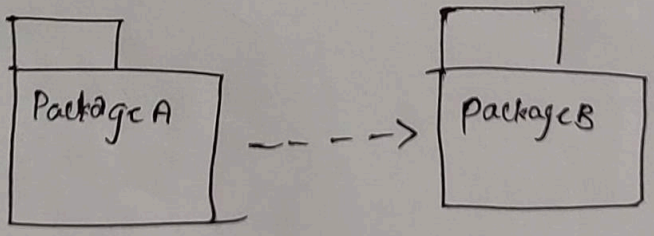
↳ It is a kind of structural diagram, shows the arrangement of organisation of model elements in middle to large scale project.

↳ It is used for organizing the class & use-case diagrams

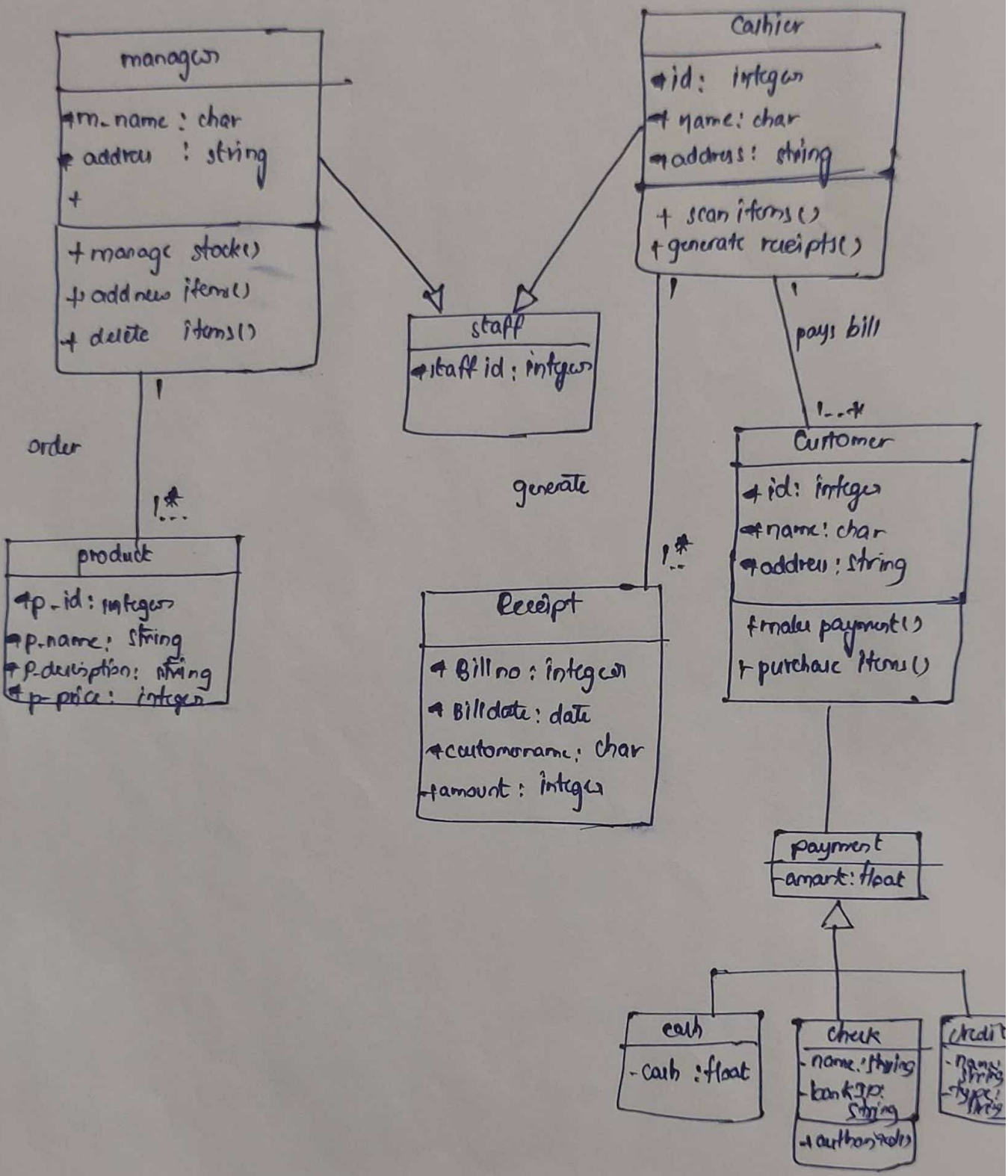
Ex: ①



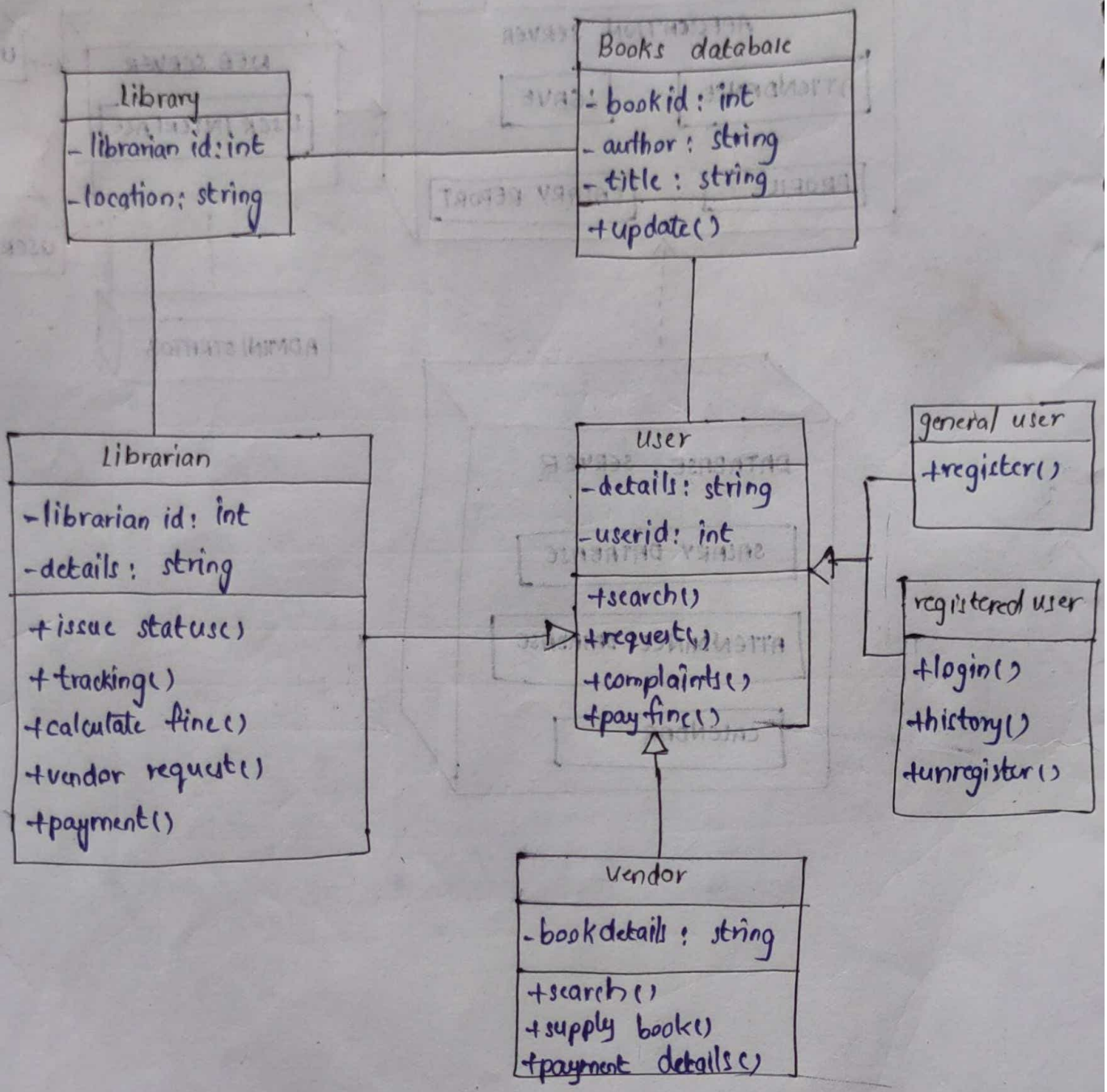
②



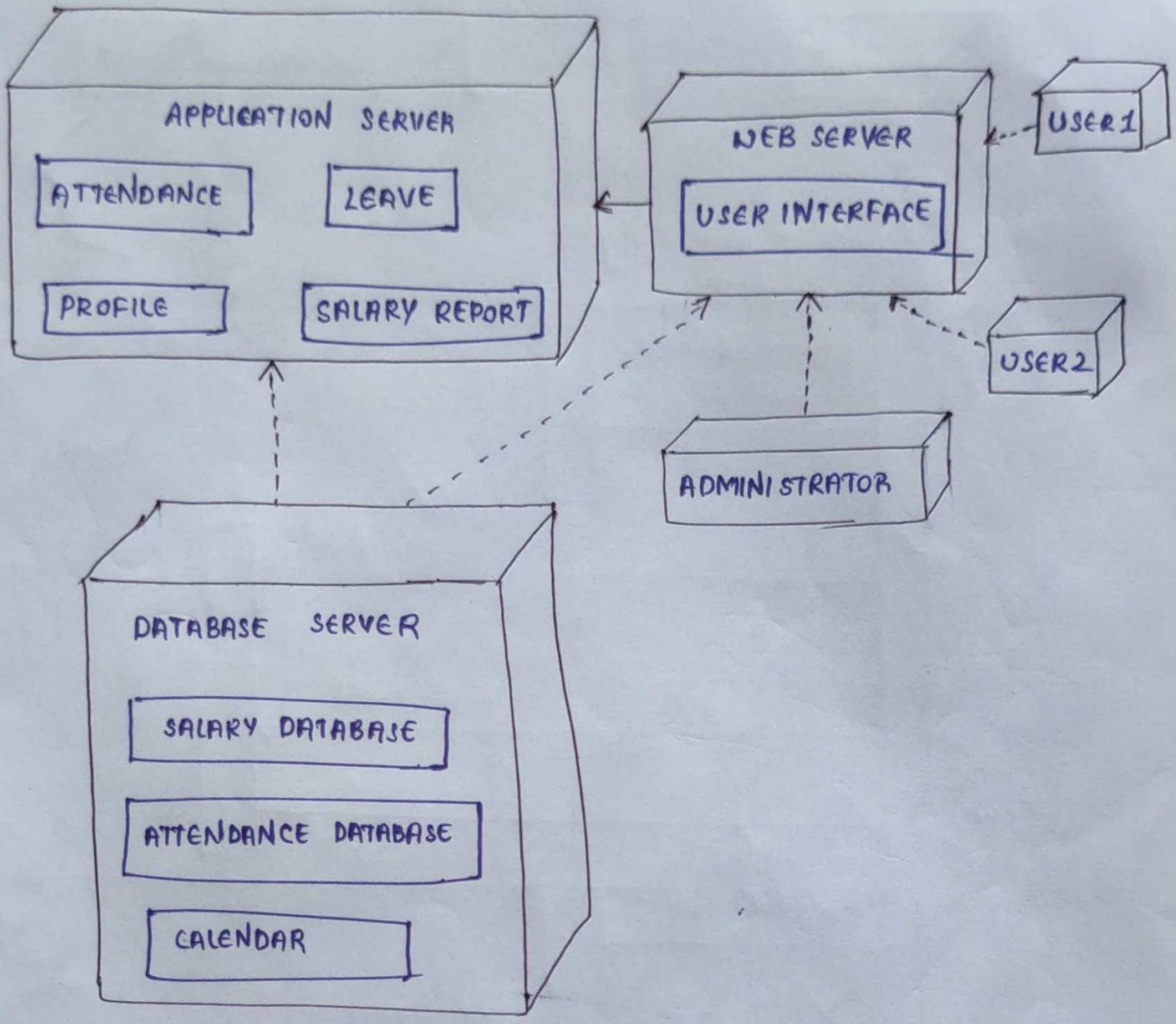
class diagram for shopping cart



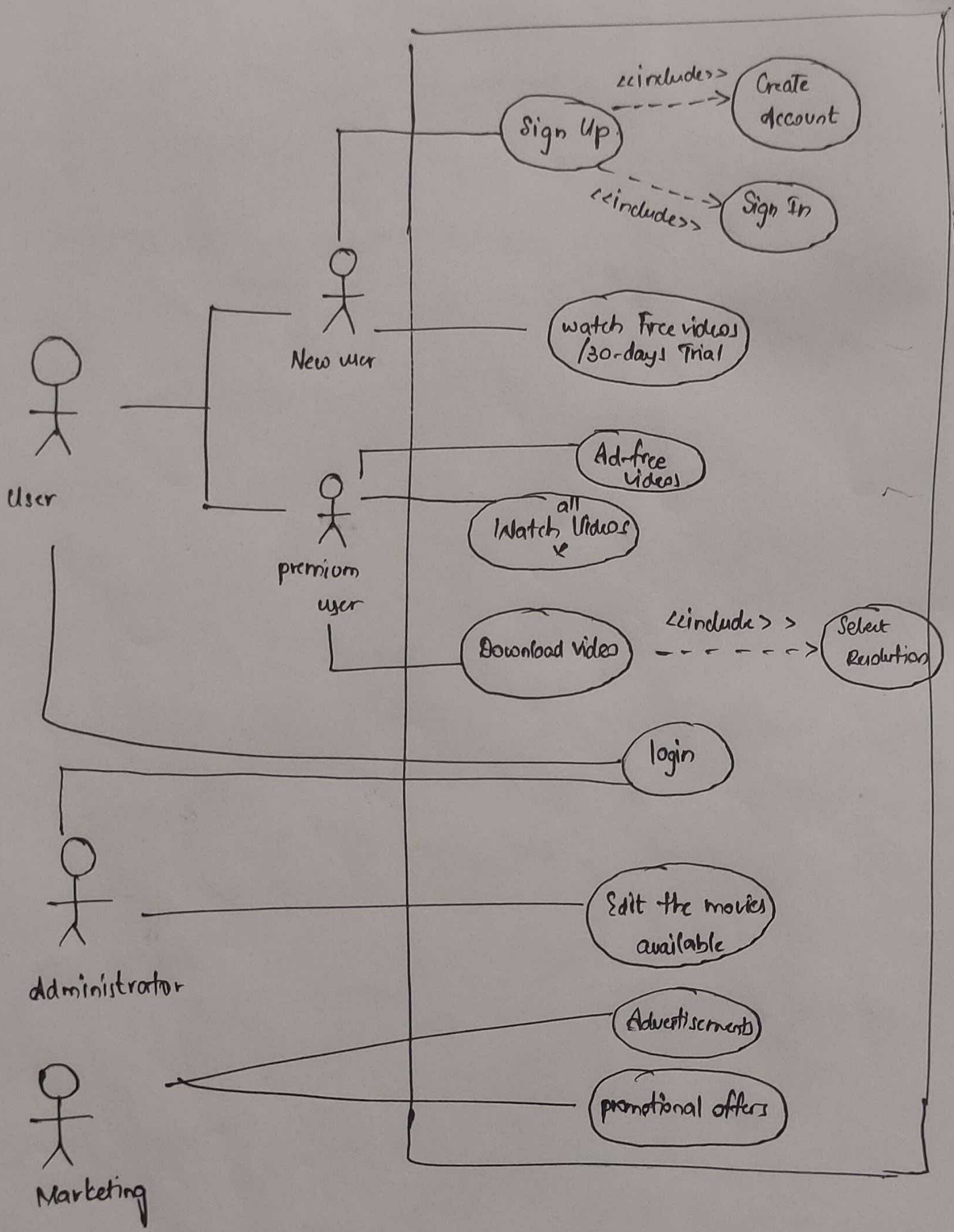
* class diagram for library Management System :-



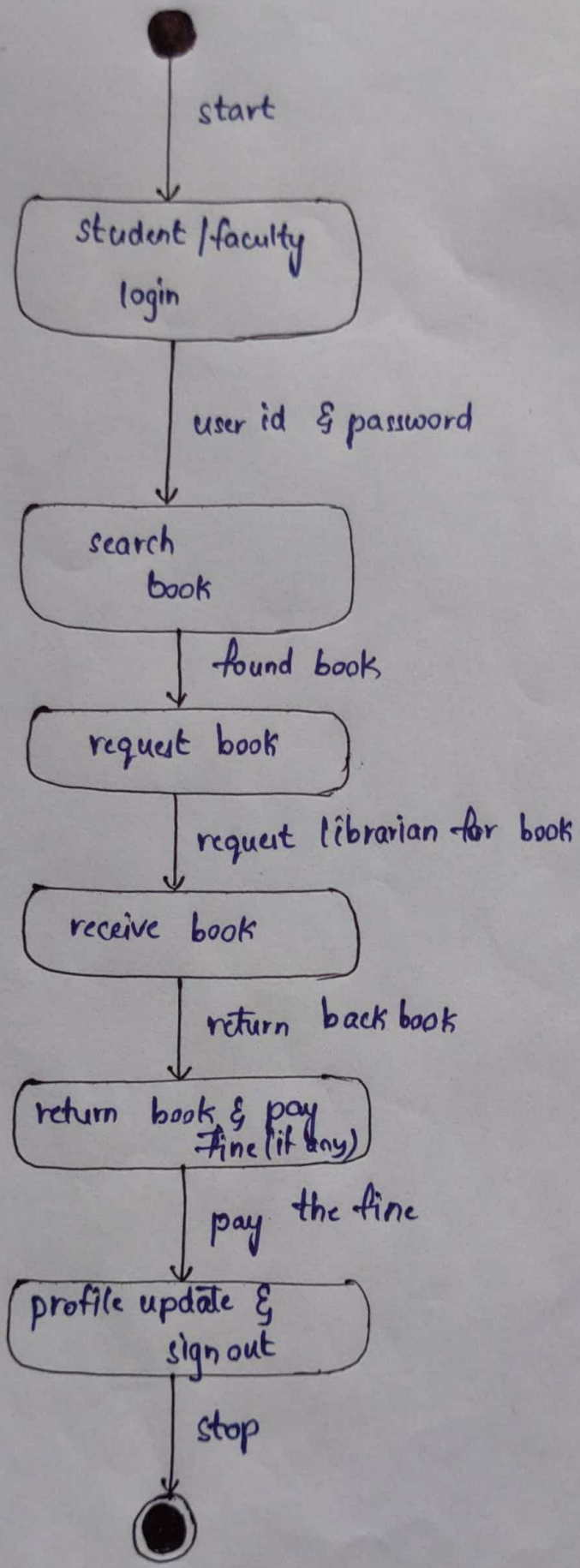
Deployment diagram for staff Management system



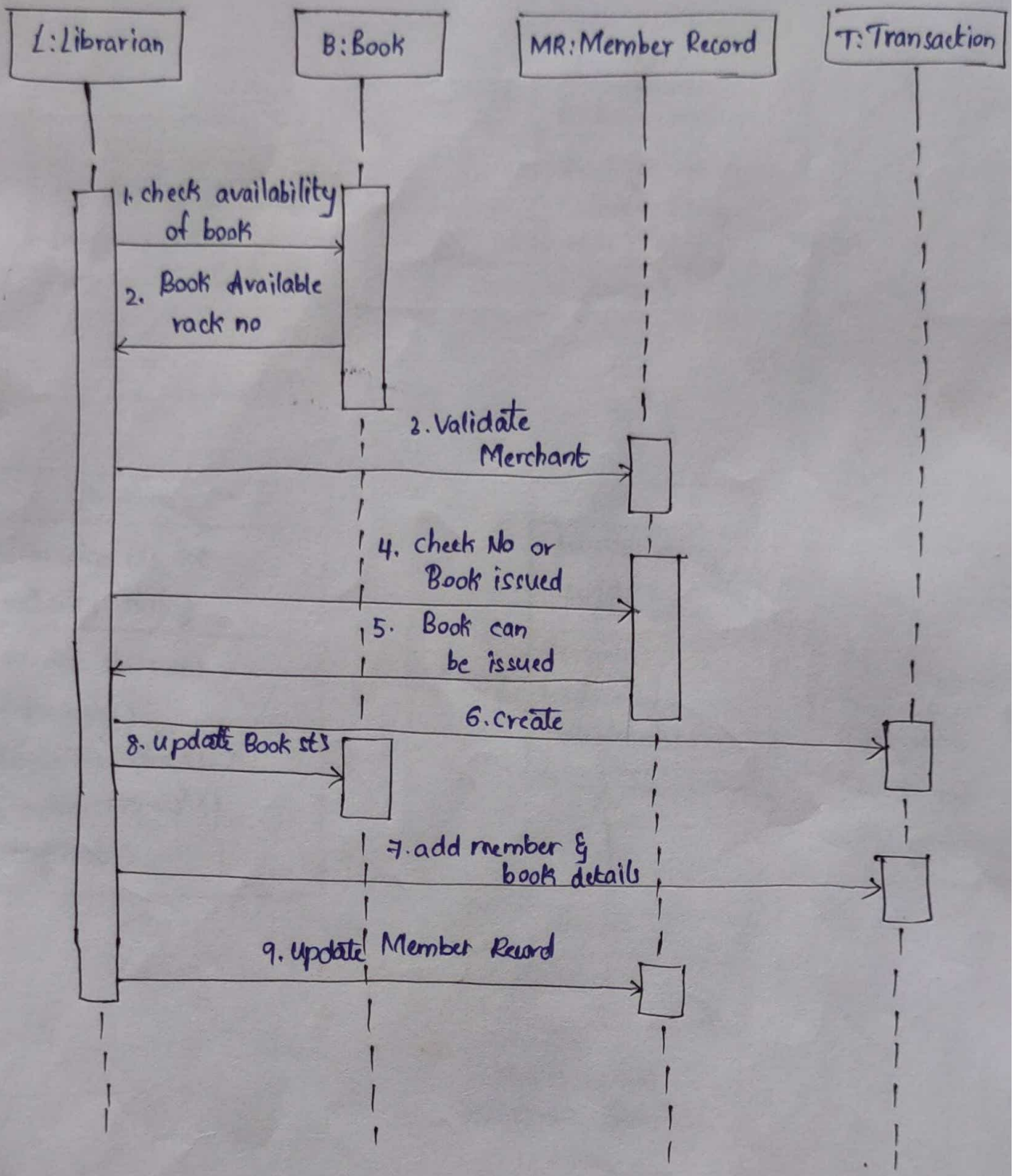
Usecase diagram for Social website (Netflix)



State chart Diagram for library Management system



* Sequence Diagram for library Management System:



Normalisation:- (1NF, 2NF, 3NF)

1NF:- Ex:

Item	Color	price	tax
T-shirt	red, blue	12.00	0.60
jeans	black, white	16.00	1.00
sweat shirt	grey, Yellow	25.00	1.25

1NF (First Normal form):-

Item	Color	price	tax
T-shirt	red	12.00	0.60
T-shirt	blue	12.00	0.60
jeans	black	16.00	1.00
jeans	white	16.00	1.00
sweat shirt	Grey	25.00	1.25
sweat shirt	yellow	25.00	1.25

2NF (Second Normal form):-

Ex:-

Item	price	tax	Color
T-shirt	12.00	0.60	red
T-shirt	12.00	0.00	blue
jeans	16.00	1.00	black
jeans	16.00	1.00	white
sweatshirt	25.00	1.25	Grey
sweatshirt	25.00	1.25	Yellow

2NF form:

Item	price	tax
T-shirt	12.00	0.60
Jeans	16.00	0.75
sweatshirt	25.00	1.25

Item	color
T-shirt	red
T-shirt	blue
Jeans	black
Jeans	White
sweatshirt	Gray
sweatshirt	Yellow

3NF:-

Item	Color
T-shirt	red
T-shirt	blue
Jeans	black
Jeans	White
sweat shirt	Grey
sweat shirt	Yellow

Item	price
T-shirt	12.00
Jeans	16.00
sweatshirt	25.00

price	tax
12.00	0.60
16.00	0.75
25.00	1.25