

UML

Date _____
Page _____

- Unified Modeling Language
- It is a visual language

⇒ USE CASE Diagrams :-

— - Actor

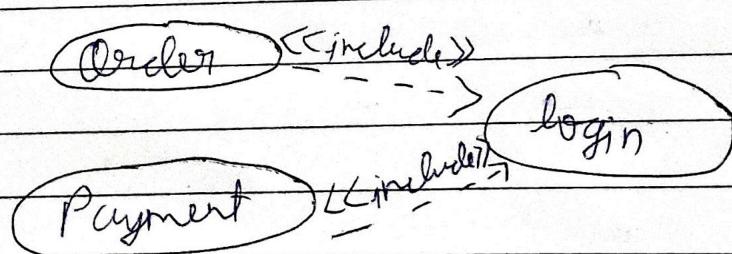
○ - Use Case (function / operation)

— - Link

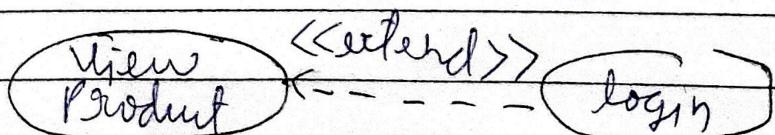
↑ - Generalization

-- - - - > - Relationship b/w 2
use case

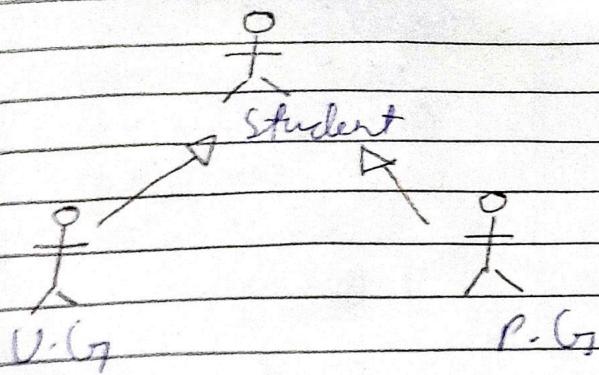
Ex :- We must login first to
order or payment in this
we used ① << include >>



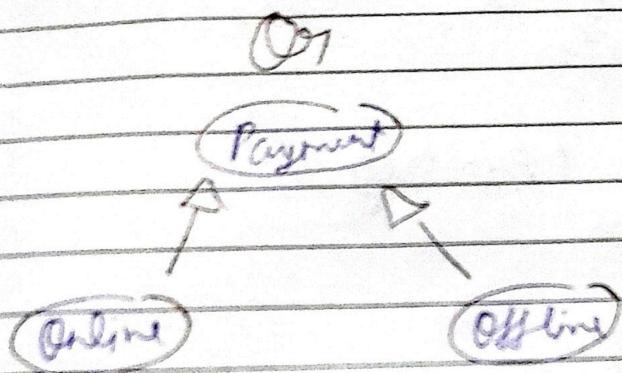
② (It is use for optional/ we can view product
<< extend >>) with login or without



⇒ Generalization ↗



In this is
student is UG
or PG



Payment will
be online or
offline

⇒ Class Diagrams :-

Class Name
Attribute
Operation / Junction

Access Specifiers:-

+ - Public

- - Private

- Protected

<code>(-x) + Student</code>
<code>-name: String</code> <code>-addr: String</code> <code>-dob: String</code>
<code>+ Register(): void</code> <code>+ Login(): void</code>

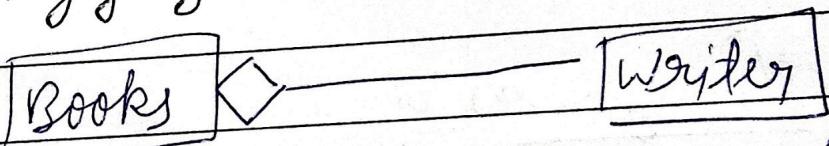
Association :-

1	Exactly One
(0...*)	Zero or more
(1...*)	One or more
(0....1)	Zero or One
(5...7)	5 to 7
(4, 6)	4 or 6

Association is a divide in two parts

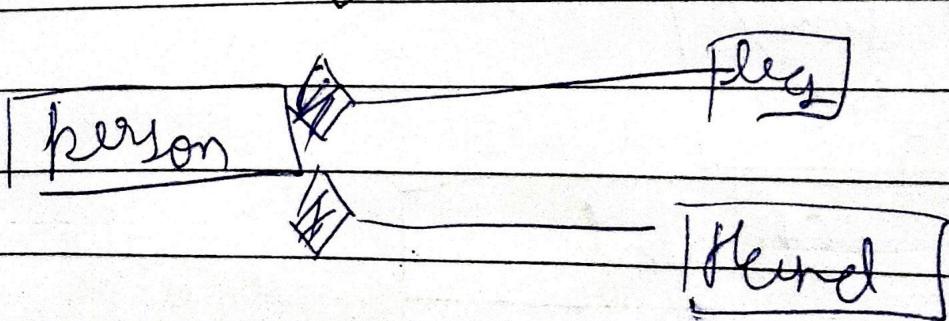
- ① Aggregation (Part of)
- ② Composition

Aggregation

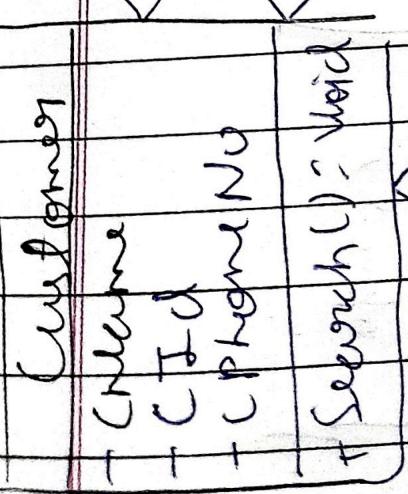
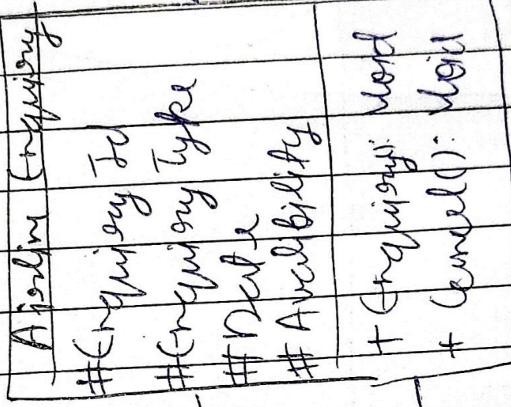
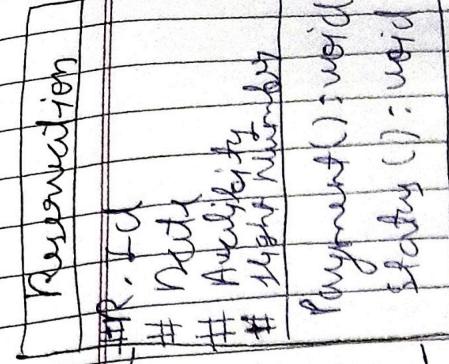


Writer is part of Book

Composition :-



Flight Reservation System



Officer	
# High ID	
Through	
Row ()	
Margin ()	

Officer	
# High ID	
# Study	
Total ()	

Personnel	
- P ID	
Subject	
Total ()	

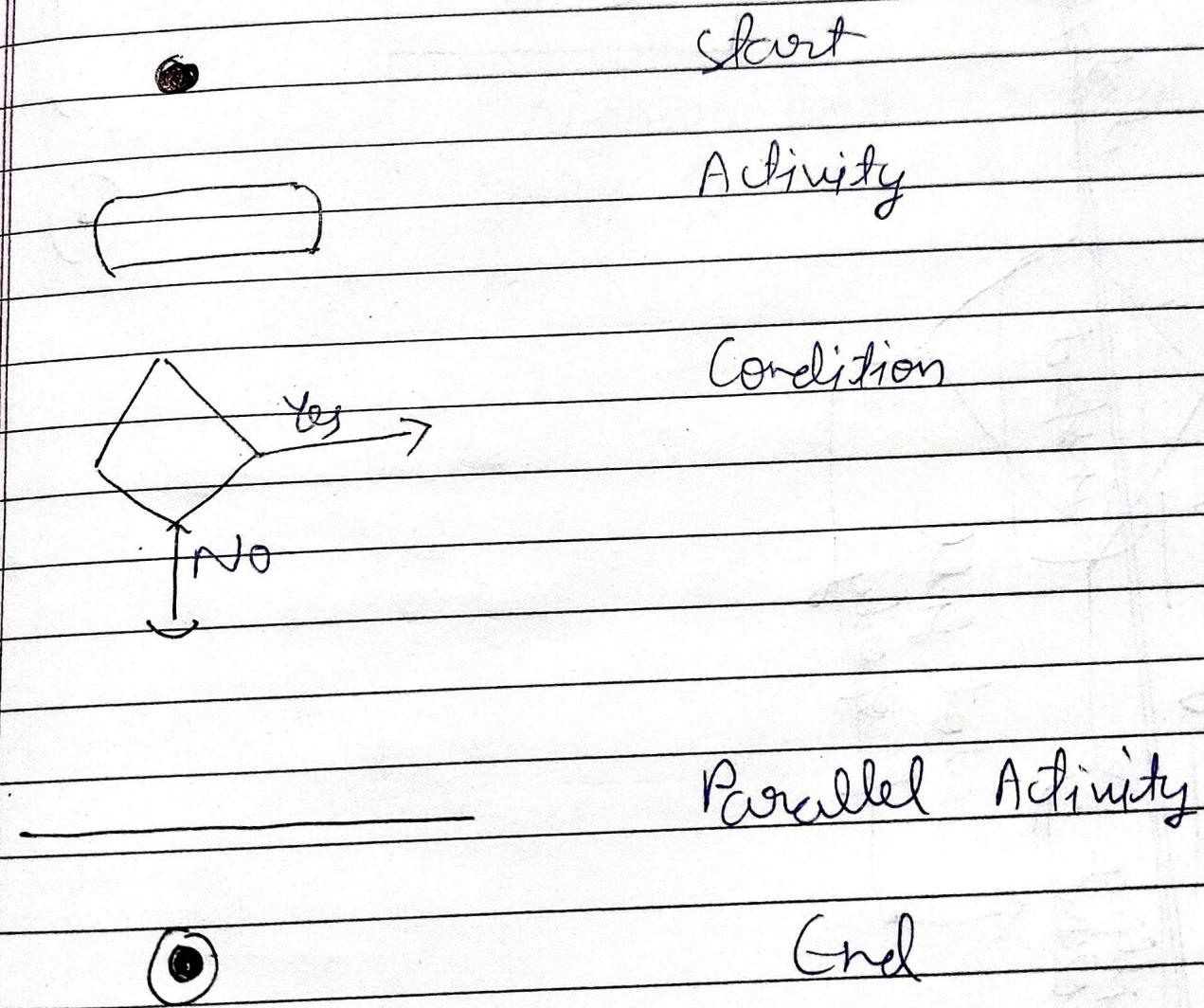
Employee	
- E ID	
# Name No	
# Change No	

Reported	
# N ID	
# D Name	
A sign	

Instruction	
- I ID	
# Topic	
Topic ()	

⇒ Activity Diagrams :-

It is basically a flowchart to represent the flow from one activity to another



Activity

ENRQ → Filling forms



Not filled
properly

sheet

filled, The form
Presentation

Help

Not
Paid

pay
Honor

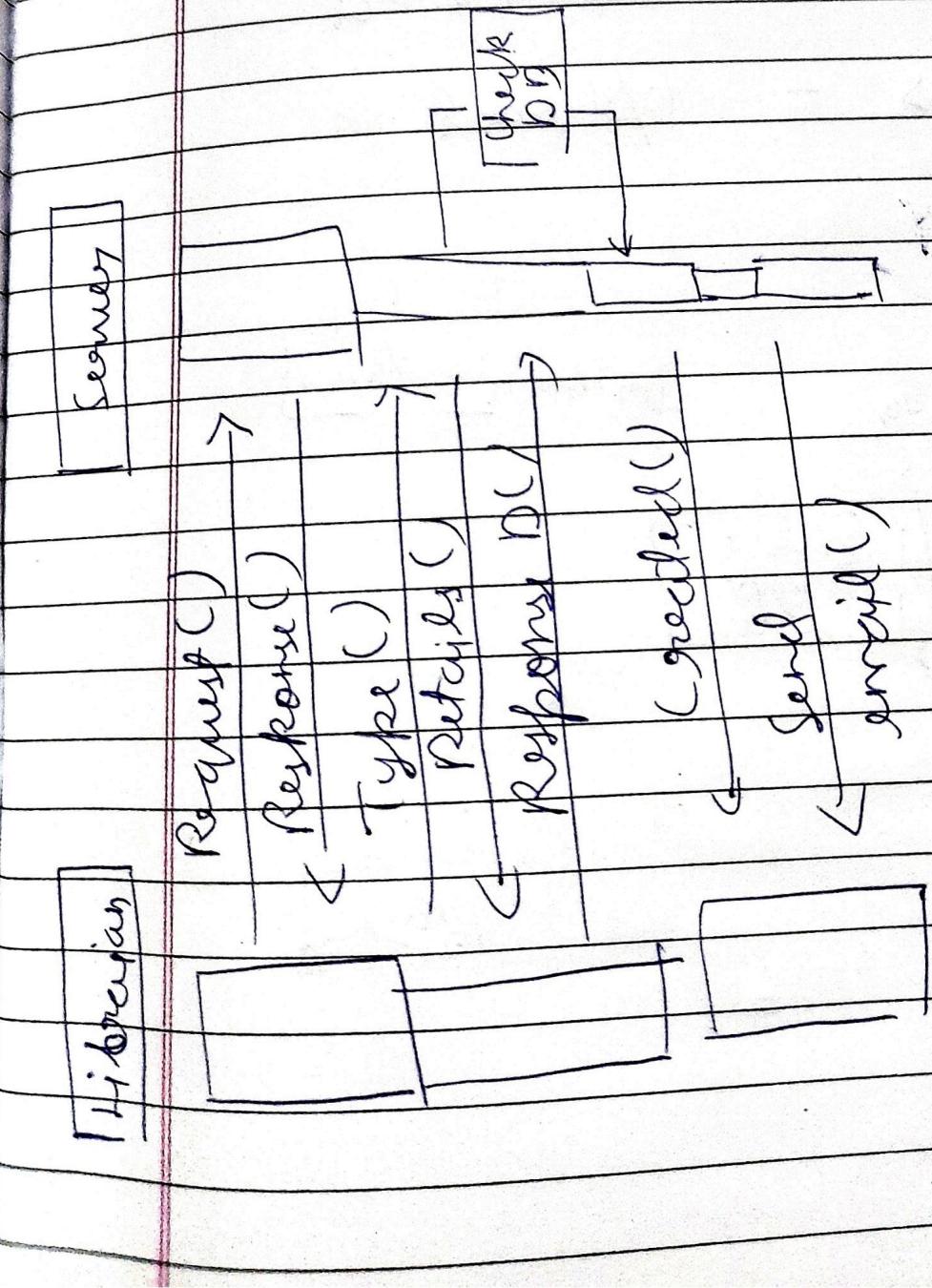
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⇒ Collaboration - 1;
Sequence Diagram :-

- It is a dynamic diagram.

⇒ Sequential Diagram for creation
of New library system:-



⇒ Component Diagram
It shows component of a system

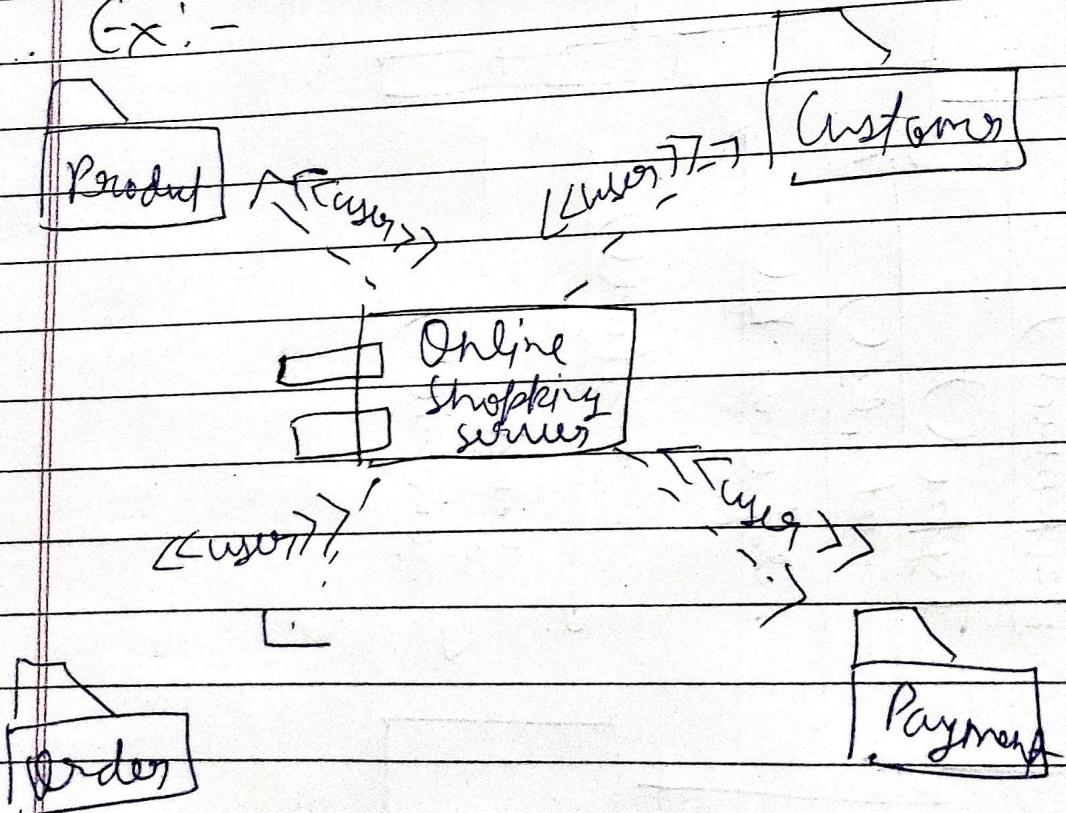
[] - Component

[] - Library

↔ - ~~Opt~~ Fixed

<--> - optional

Ex:-



⇒ State Transition Diagram is

Define possible states of class

Events that cause a transition from one state to another.

Action that result from state change