

4/7/22

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## \* Weekly lesson plan :-

Week 1 :- Understanding importance of SDLC.

(System development life cycle)

Week 2 :- Receive problem definition & gather requirement for that.

Week 3 :- preparation of Event table & feasibility study.

Week 4 :- Introduction about UML.  
(Unified modeling language).

Week 5 :- Understanding concept of UML use-case diagrams.

Week 6 :- Modeling with activity diagrams.

Week 7 :- Introduction to static view of an application / System / project.  
(class diagrams).



Week 8:- Understanding the Concept of interacting diagram

Week 9:- practical test for topics given in week 5 & 7.

Week 10:- Implementation of Each type of interaction diagram (Sequence & Collaboration diagram)

Week 11:- Case study & Presentation.

Week 12:- Revision.

Week 1 :- [SDLC]

⇒ 6 phases of SDLC :-

- (1) Requirement gathering & analysis.
- (2) System design.
- (3) System implementation.
- (4) System testing.
- (5) System deployment.
- (6) System Maintenance.

★ User story :-

(1) As a member of any city library, I can issue book, after logging into library application.



S.R.no

Description:

⇒

1) Member Can issue a book.

2) Member Can login into System.

3) Member Can register into System.

(2)

As a reader of any E-magazine, I can translate the content either in English or French. I can also highlight the content with specific colour of my choice.

⇒

1) Content must be visible to the reader.

2) Reader can translate with toggle button. toggle must be clickable.

3) Reader can highlight the content.

4) Highlighter can be a specific colour.

5) Reader can highlight the content with yellow colour.

6) Reader can save the modification.

7) Reader can view previous changes.

8) User can login into system.

9) User can register into system.

(3)

A web based application which will keep track of all the details regarding complains booked by a user. Managers can assign complaint representative representative by location. Once the complain is resolved can give feedback for representative.



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# PD-1

⇒ Roles in appointment Schedules:-

- (1) client  
(2) Site administrator

ID Roles Description

- 1) client  
→ ~~registered~~ client can be  
→ login: registered.

- Verify credential.
- view list of time slot.
- select project conveners. if available.

- scheduled meetings.

- get monthly by registered Email.

- 2) Admin  
→ Manage project conveners details.

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- adding new details of project conveners.

- updating / remove.
- view bar chart of scheduled appointment on monthly basis.

# PD-2 :- Approval / deny of resource

ID Role Description

1. admin.  
- admin can share details to seekers.

- admin can manage the resource details.

- no. of seekers details, no. of resource, no. of pending request, denied requests,

- 2) Seekers - It must need to register & login in system.

- It can apply for resource that is approve / deny by admin.



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## # Feasibility Study :-

PD-4  
SR.No

Type of feasibility

Description

Example.

(1)

Operational feasibility.

i) for the respective city, client needs a mobile app which consist of following features :-

- register.
- Membership payment.
  - Cash
  - UPI.
- login
- Scheduling on Event with team details.
- approve Event
- reject Event with reason.
- Send SMS regarding Status of Schedule.

(2) Technical = operating system

feasibility = programming lang.

= Database Technology

= frontend tool

= Network tool

= 3rd party tools or

application or services.

(3) Economic = Salary of programmer.

feasibility = Hours spend to

design or develop solution.

= Capital amount.

= profit percentage

that you have plan.



\* PD = 6 :-

SR Feasibility

Descrip.

Eg.

1) Operational - for the mobile app, which is used to manage details like:- (Perna, workers & related expenses).

2) Technical

- Workers must login into the system & then helps can enter all details.

3) Economic

- Items are less than lower limit & then it shows place Order.

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Week - 4

Introduction to UML:-

→ UML stands for unified modeling language.

# Types of UML Diagrams:-

(i) Structure / Structural Diagram.

(ii) Behaviour / Behavioural Diagram.


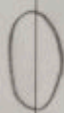
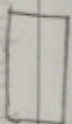
\* Structure :- (i) class (ii) object.

} Diagram.

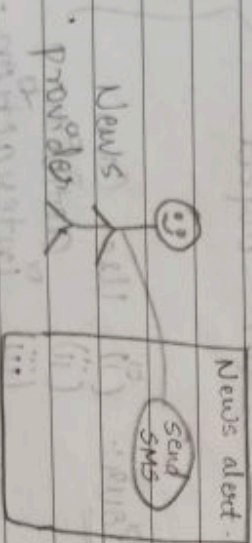
\* Behaviour:- (i) Use Case (ii) Activity (iii) Interaction.

- Sequence  
- Collaboration.

## # UML Use Case Diagrams :-

- (i) user-actor 
- (ii) Use case / functionality 
- (iii) Boundary / Scope 

\* John will send SMS on daily basis as part of news provider.



## # Types of relationship:-

- (i) include.
- (ii) Extend

\* When & why we use UML diagram?

→ It is used to analyse existing software model new software & plan software development & prioritizing.

- A way to visualize & plan your software development process.



## Assignment - 4

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P.D = 01 :- Appointment

Use Case.

Actor

Relationship

(1) Registration

Client, admin

(2) login

Client

include

(3) Schedule Meeting

Client

extend

(4) Can select the name of project

Client

extend

(5) Can be notify by email.

Client

include

(6) Month wise details in bar chart

admin

extend

P.D = 02

Resource Management System

Use Case

actor

relation

1) Registration

seeker

include

2) login

seeker

include

3) apply for resources

seeker

extend

4) login

admin

include

5) approve / deny resource

admin

include

6) Notify via sms

admin

include

7) Manage details of seeker & resources

admin

include

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Policy Management SystemUse Case

	actor	relation
1) login	agent	include.
2) Tracks all details of policy holder.	agent	
3) Generate reports	agent	Extend.
4) login	policy holder.	
5) OTP verification	policy holder	include.
6) Search for policies	policy holder	include.

P.D. 04 Event Scheduler application.

actors :- Member, Manager, office.

Use Case

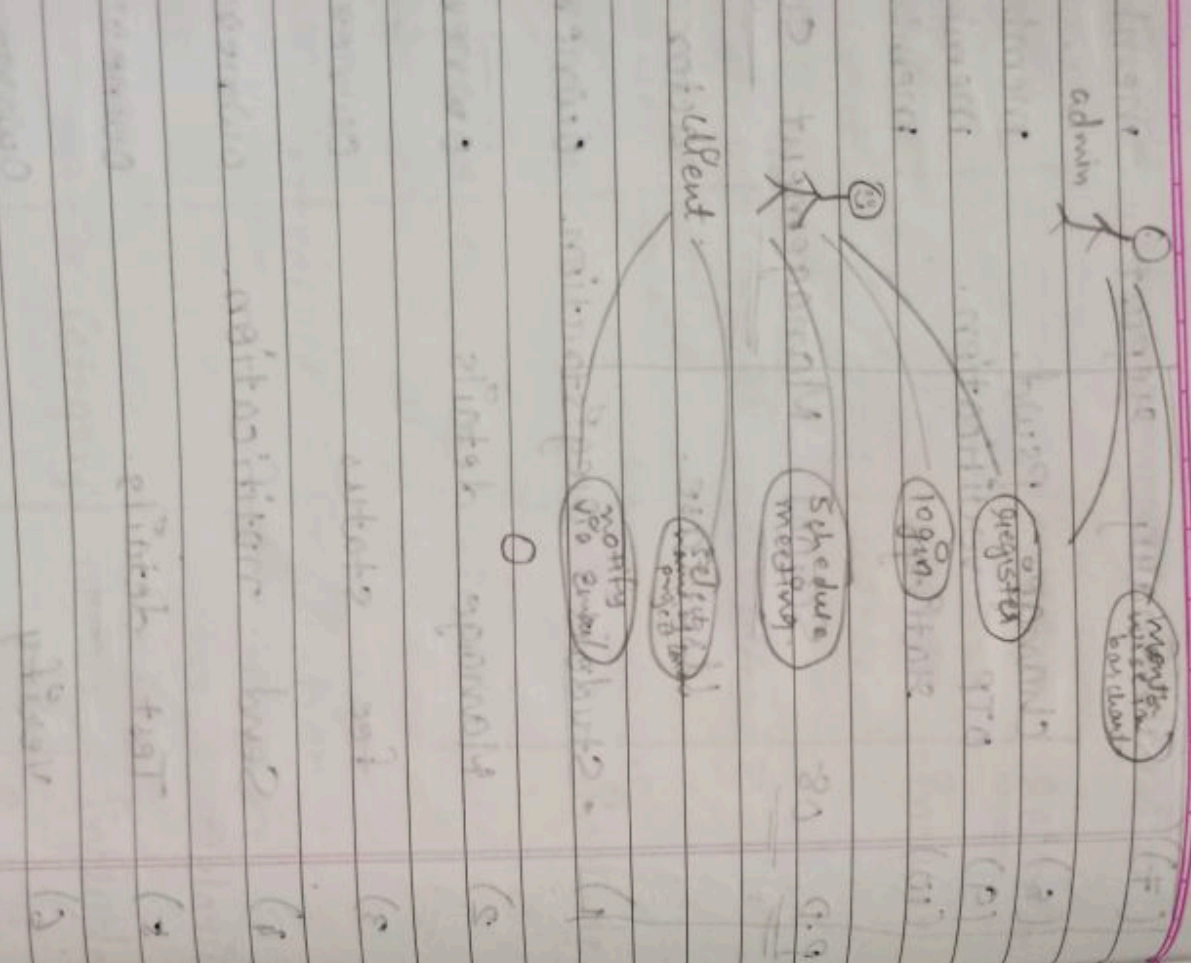
	actor	relation
1) Register login	user	
2) pay membership fees through UPI	user.	include.
4) schedule an event	Member	Extend.
5) approve/reject schedules with reason.	Manager	
7) Notify via SMS details of activities	Manager	Extend.
8) generate in PDF	officer	Extend.
9) generate in PDF	officer	Extend.

P.D. 05 Fire Management System.Use Case

	actor	relation
1) login	actor	relation
2) Track request & assign task.	Manager	include
3) Generate notification	Manager	include
4) Monthly reports	fighter Mam.	Extend.



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\* Write the Sentence :-

1) patient wants to meet a specific doctor.  
 actor patient, doctor, use case

2) Administrator can view various types of project details by classifying them into up coming & completed projects.  
 actor administrator, use case

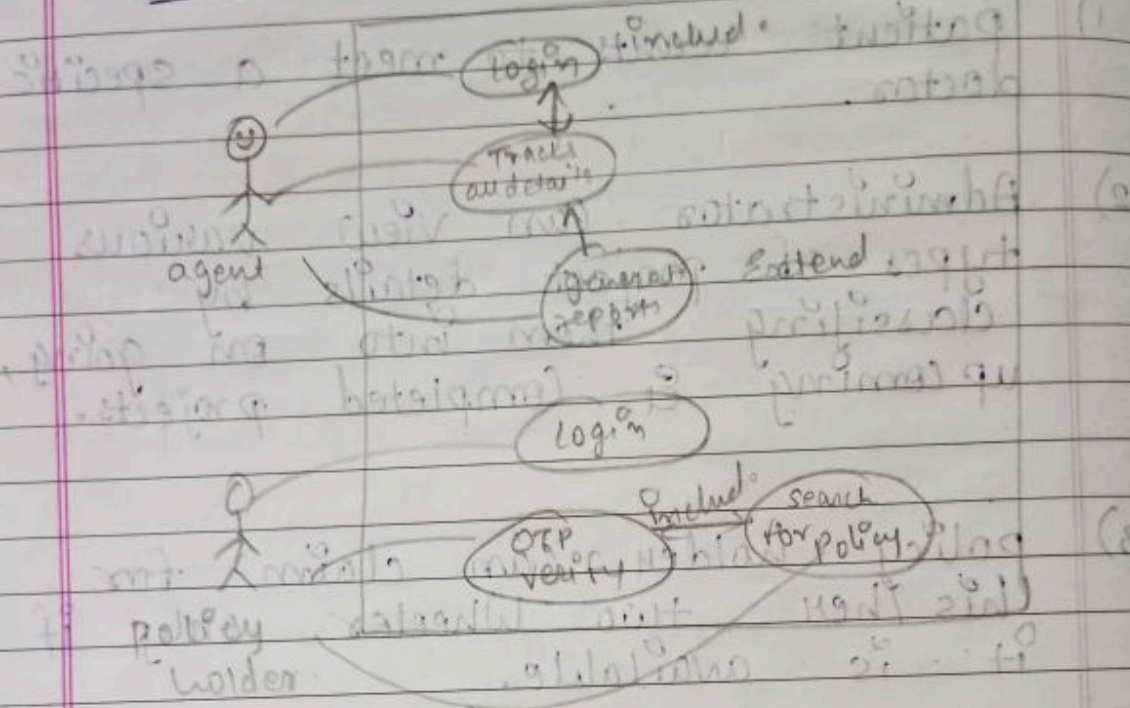
3) policy holder can claim for if his/her two wheeler only if it is available.  
 actor policy holder, use case

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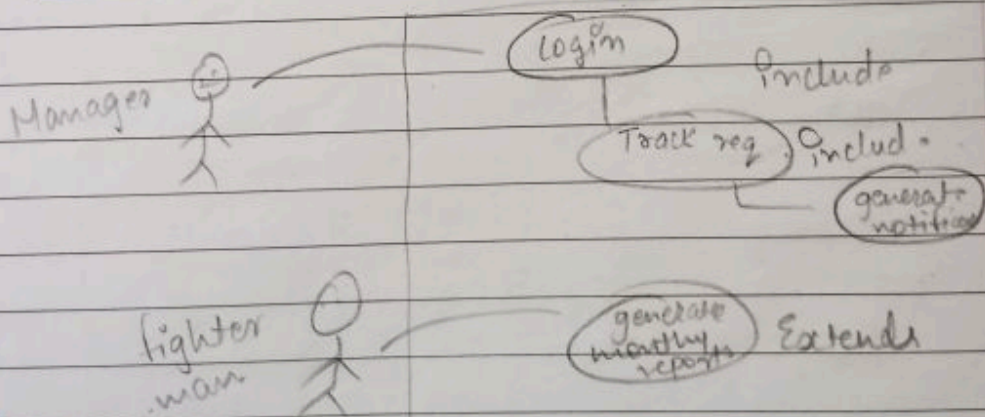


# Policy Management System

\* PD-03 :-



\* PD-05 :- Fire Management System.





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## Activity Diagram

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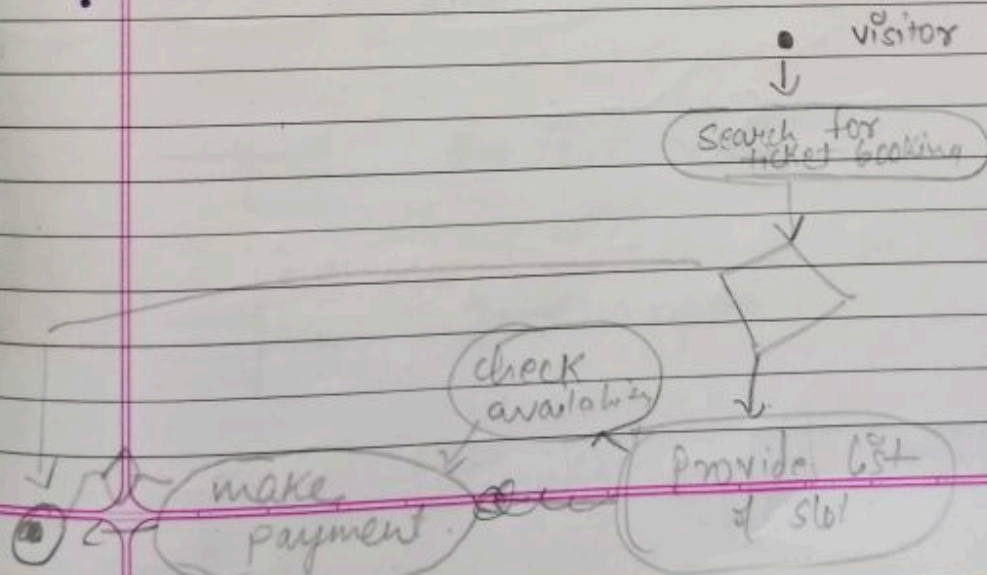
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\* (i) As a visitor of any art gallery I can search for ticket booking to visit the gallery. Once

Once I will get list of timing date wise I can pay for my slot.

=> Use case:-

- Search for ticket booking.
- Provide list of timings. (include)
- show list of available slot.
- Make payment.





Week - 6Activity Diagram & flowchart

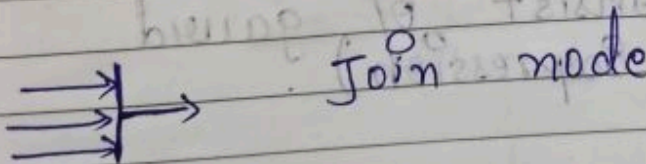
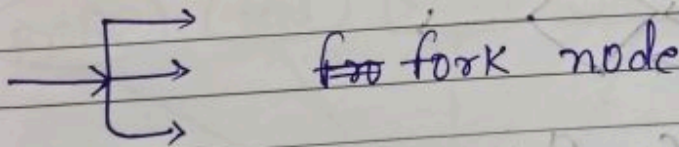
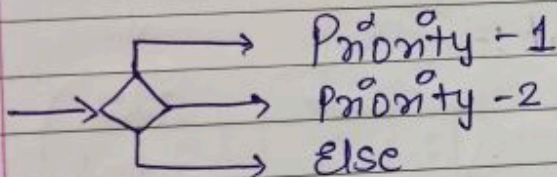
• → start point.

→ ⊙ end point

⬭ activity

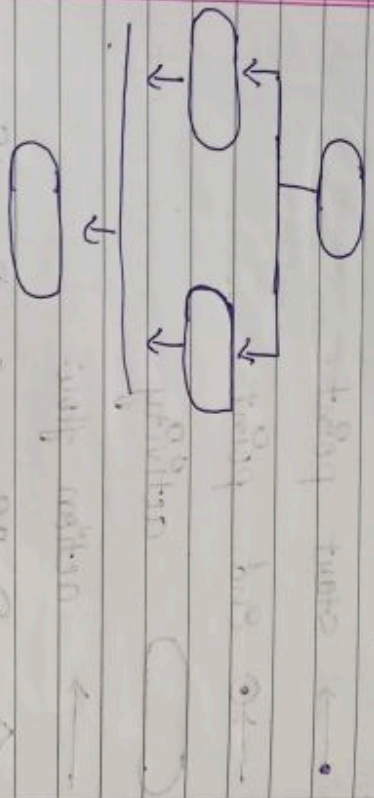
→ action flow

◇ Decision & Branching.

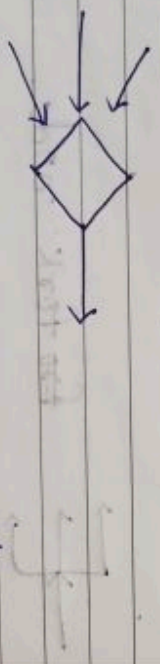




# \* Synchronization :-



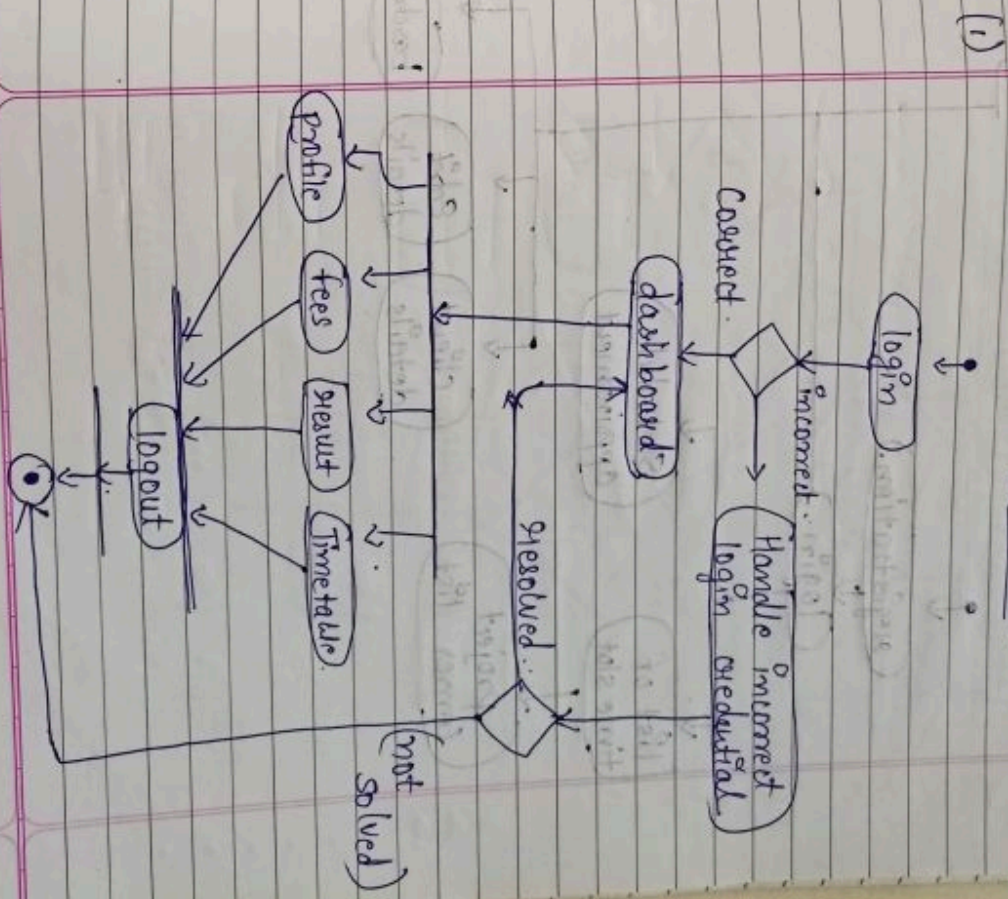
# \* Merge Event :-



Consistent of, guarded expression

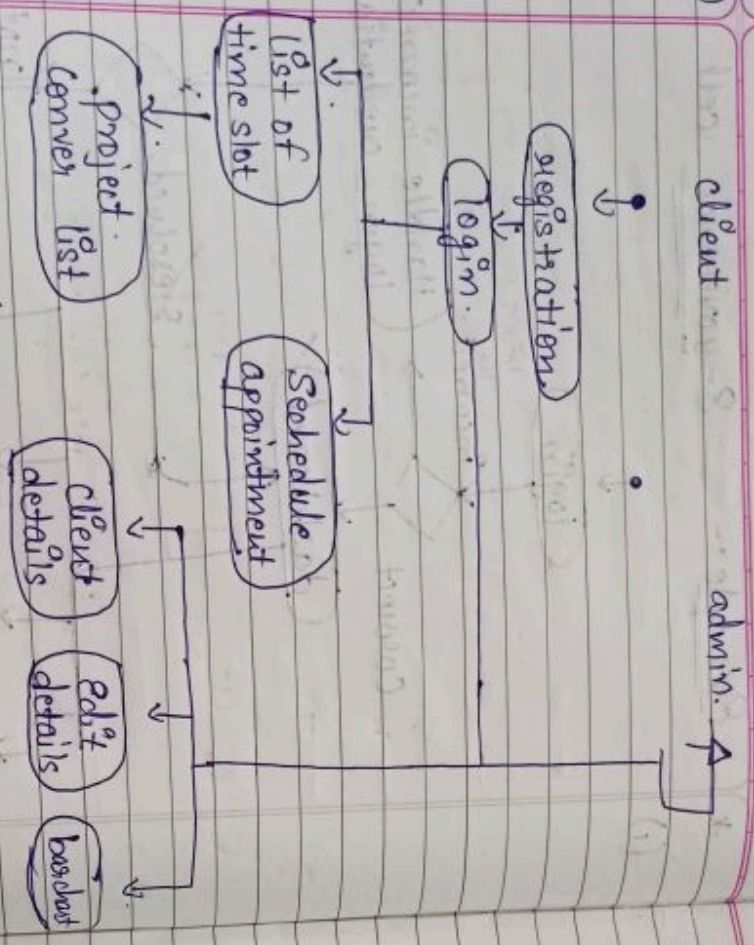
Physical Entity

# \* Example :- E-governance cell

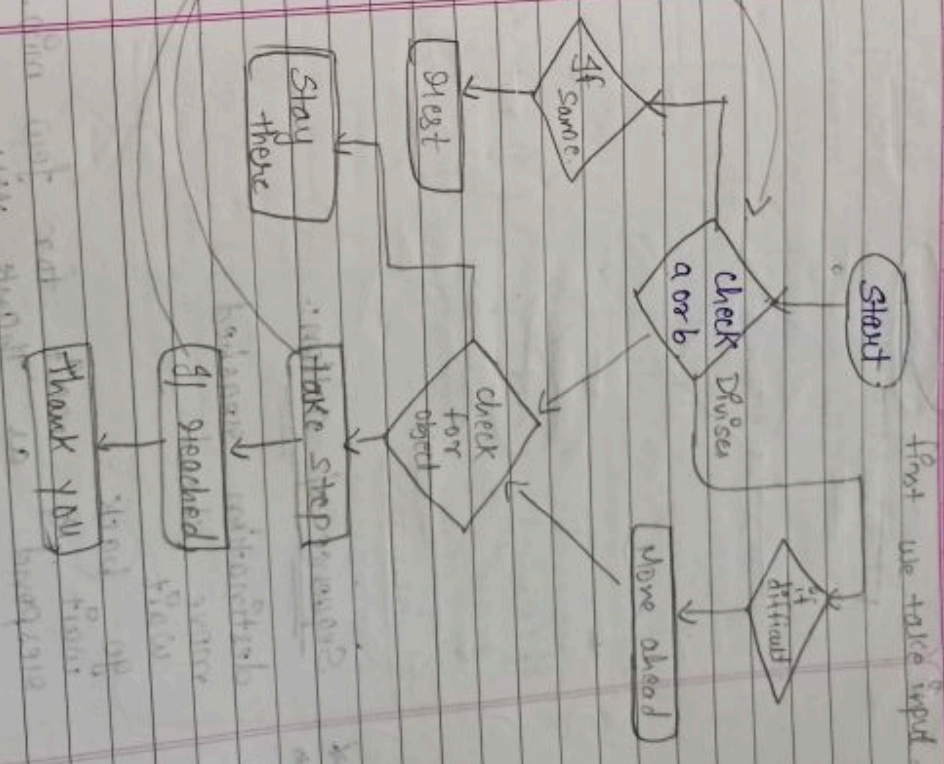




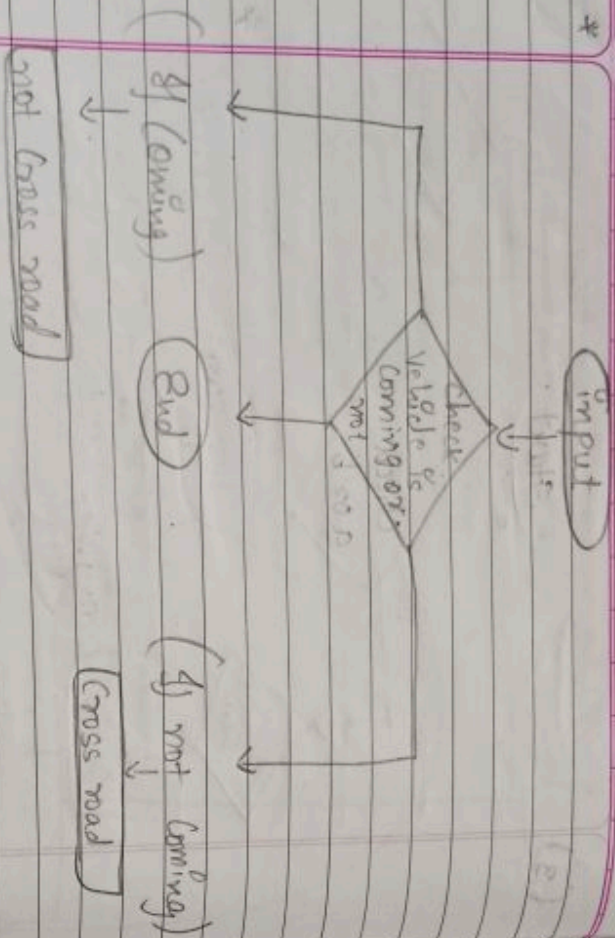
(2)



(3)

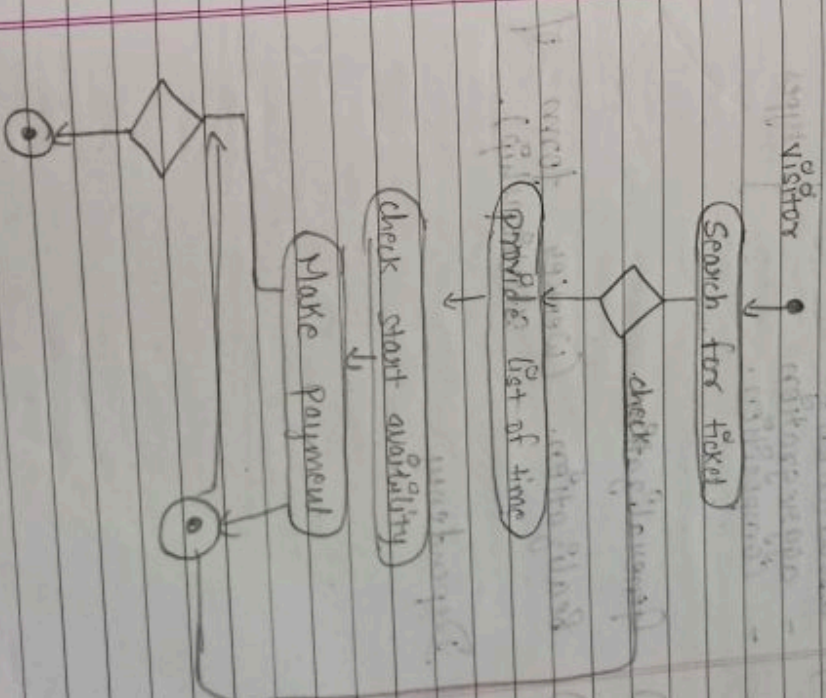






- ★ Sequence of action:-
- destination reached
  - move ahead.
  - wait.
  - go back
  - wait for few min.
  - as thank you.

- ★
- Search for ticket booking.
  - provide list of time slot.
  - check start availability.
  - Make payment.





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## Class Diagram

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### Relationship in class diagram

1)

association :-

- aggregation
- composition.

} types

2)

Generalization.

3)

Realization. (weaker form of relationship).

4)

Dependency

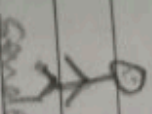
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