

4/7/22

Moodle access
* Weekly lesson plan: URL - 117.239.83.200:809/moodle
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Pw - 20bsc - moodle

Week 1:- Understanding importance of SDLC (System development life cycle).

Week 2:- Receive problem definition & gather requirements 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 diagram.

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

Week 8:- Understanding the concept of interaction diagram.

Week 9:- Practical test for topics cover in week 5 & 7.

Week 10:- Implementation of each type of interaction diagram.
(Sequence & collaboration diagram).

Week 11:- Case study presentation

Week 12:- Revision

W-1 * SDLC (System development life cycle) :-

6 phases of SDLC

- i) Requirement gathering & analysis
- ii) System design
- iii) System implementation
- iv) System testing
- v) System deployment
- vi) System Maintenance

* User story :-

① As a user of member of any city library, I can issue a book after logging in to library application.

| P1 :- Sr. 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-managing I can translate the contact either in English or French. I can also highlight the content with specific colors & save it.

| → Sr. No | Description |
|----------|--|
| 1 | Content must be visible to reader. Reader can translate with toggle button. |

3.

Toggle must be clickable 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.

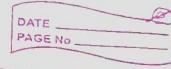
8.

User can login in to system.

9.

User can register in to system.

A web based application which will keep track of all the details regarding complaints booked by a user managers can assign complaints to respective



representation by location Once the complaint resolved user can give feedback for respective representation.

1. User must kept track of application.

2. Complaints must be in order.

3. Manager can read the complaints.

4. User can give feedback for their representation.

5. Manager can assign complaints by their location.

② I am owner of two wheeler and I want to service my vehicle at John's garage to check the availability of slot if slot is available may book that slot by paying the cost of booking payment can be done via UPI or debit / credit card. John can view list of vehicles by slot when John is requesting for information by slot, he will get vehicle owners details.

Week-4

1. One can login into the system.
2. One can registered the details of vehicles owners.
3. dropdown button must be display for payment methods.
4. dropdown button must be clickable.
5. Slots can be display accordingly time.
6. Request button must be their for customer.

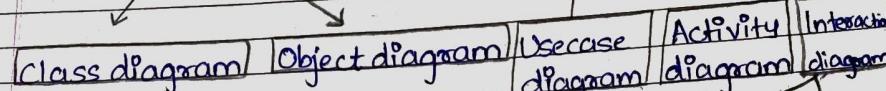
* Introduction to UML

- Unified Modeling language.

* Types of UML diagram

Structural diagram

Behaviour diagram

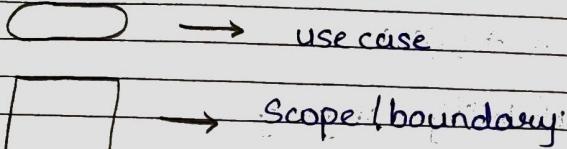


* Why we required to model UML usecase diagram.

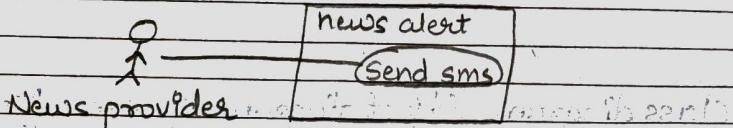
- UML Usecase Diagram.

• Symbols :-





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



- * List types of relationship in use case diagram

- << include >>
- << extend >>

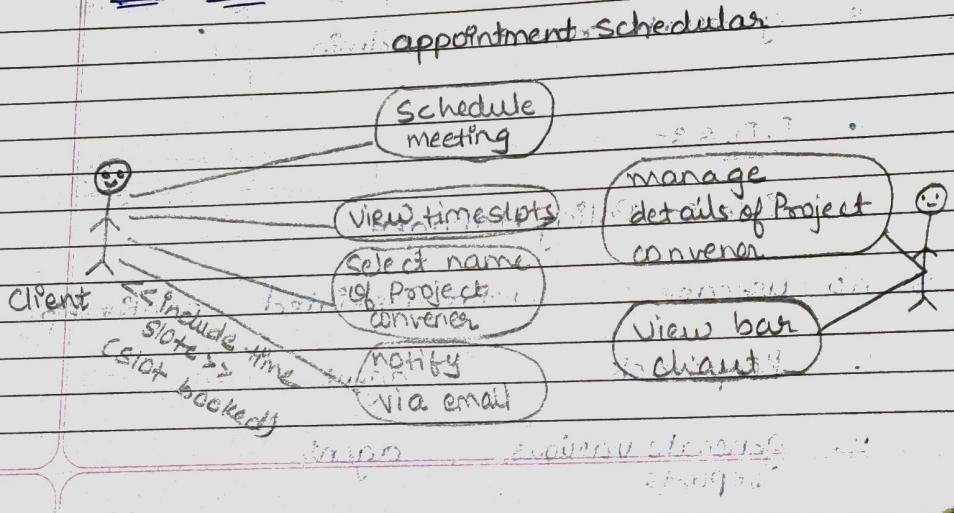
• Problem Definition

Title - Appointment Scheduler.

| Use case | actor | associated relationship |
|------------------|--------|-------------------------|
| Schedule meeting | client | |
| view time slot | client | |

3. Select name of project convener
4. Notify via email
5. Manage details of project convener
6. View bar chart of month wise scheduled appointment

- * UML usecase diagram



P.D.2 :-

Title - Resource Manager

| sr.no | usecase | actor associated | relationship |
|-------|----------------------|------------------|--------------|
| 1. | Share resource usage | admin | |
| 2. | Apply for resource | seeker | |
| 3. | Notify via SMS | admin | |
| 4. | Manage details | admin | |
| 5. | generate report | admin | |

P.D.3 :-

Title :- Policy Manager

| sr.no | usecase | actor associated | relationship |
|-------|--------------------------|------------------|--------------|
| 1. | Keep track | agent | |
| 2. | generate various reports | agent | |

3. Search for different policies

policy holder

1. "include"
2. apply, update
3. add, edit,
4. view

P.D.4 :-

Title :- Sports club membership

| sr.no | usecase | actor associated | relationship |
|-------|----------------|------------------|--------------|
| 1. | Schedule event | member | |
| 2. | Become member | new user | |

1. "include"
2. by paying membership fees

3. Approve or reject scheduled events

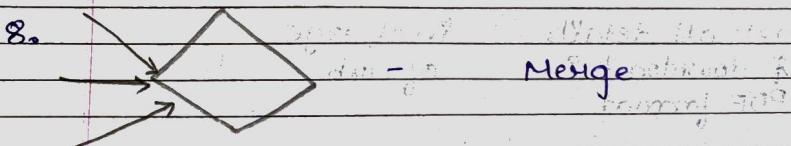
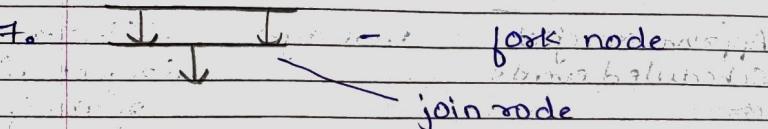
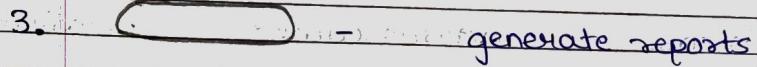
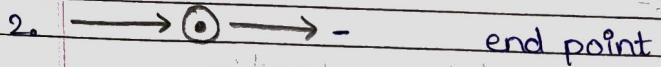
manager

1. "include"
2. reject with reason?

4. get all details & download in PDF format

incharge of club

* Activity Diagram (Basic Symbols)



* UML Usecase diagram :-

1. what is importance of UML?

2. List types of UML diagram

3. List types of structured diagrams

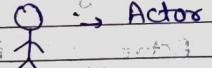
4. List types of behavioural diagram

5. why we required to model UML usecase diagram.

6. List types of relationship in usecase diagram


- A It is general purpose modelling language
A standard way to visualize the way a system has been designed.

Symbols:-



 → Actor

 → usecase (functionality)

 → System (Boundary / scope)

- P.D. 5 :-

Title - Fire Management System.

| Use Case | Actor | Relationship |
|-----------------------------|---------|--------------|
| login | owner | include |
| track request & assign task | Manager | include |
| generate notification | Manager | include |

Gen Monthly reports

- P.D. 6 :- Fire safety of user buildings

Title - Stock Management System.

| Use Case | Actor | Relationship |
|----------------------|-------|--------------|
| login | owner | include |
| Get details of items | owner | include |

Manage details of supplier

login

Get details of stock pending

owner

worker

worker

include

- P.D. 7 :-

Title :- E-commerce Application

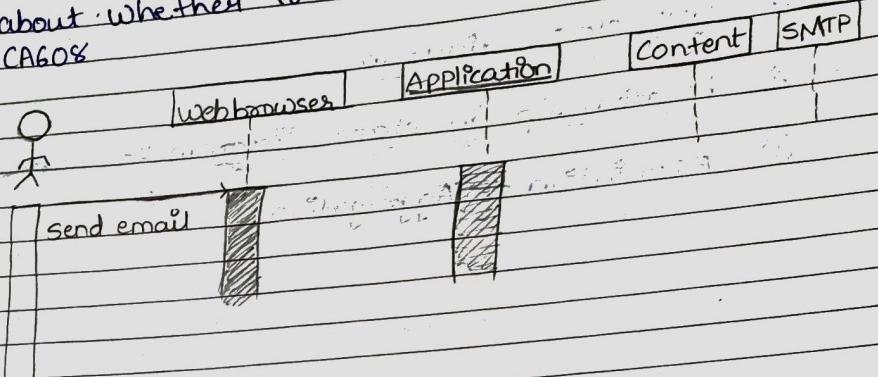
| Use Case | Actor | Relationship |
|-------------------------------|---------|--------------|
| Product details category wise | Visitor | include |
| Registration | member | include |
| login | member | include |
| purchase product | member | include |
| payment for product | member | include |

| | member | include |
|---------------------------|--------|--------------|
| payment status | member | include |
| Summary report | member | extend |
| change password | member | extend |
| OTP verification | member | include |
| Ratings | member | extend |
| • P.D. 8 :- | | |
| Title - School Management | | |
| Usecase | Actor | Relationship |
| Student Registration | owner | |
| Manage details | owner | |
| fee status | owner | |
| Send notification | owner | include |
| Test notification | owner | |
| Verify | owner | include |

- DATE _____
PAGE NO. _____
- | performance | parently |
|----------------------|----------|
| contact with faculty | parents |
| extend | |
- * Write the sentence :-
1. patient wants to meet a specific doctor
 2. Administrator can view various types of project details by classifying them into on going, upcoming & completed projects.
 3. Policy holder can claim for his/her two wheeler only if it is available.
- * Class Diagram :-
- * Relationships in class diagram :-
- 1) Associations :- 1) Aggregation
2) Composition
 - 2) Generalization
 - 3) Realizations

Use case

Vivek want to send an email to mahasiswa about whether to attend Lab session of CABOS



* 4) Dependency

* Problem Definition :-

| | | |
|-----------------------|------------|------------------------------|
| Admin | | Seeker |
| + name : String | | + id : String |
| + contactno : String | | + name : String |
| + generate data() | can manage | + email : String |
| + manage Resource() | | + M_no : String |
| + Manage Seeker() | * | + Request for resources() |
| + Send notification() | | + Receive SMS() |
| | * | + sign in() |
| Resource | | + Sign up() |
| + id : String | | |
| + name : String | | |
| + status : String | | |
| + manage resource() | | |

* Elements of class Diagram

1. Class
2. Attributes
3. Operations (behaviour)
4. Relationship with other classes

Assignment :- 1

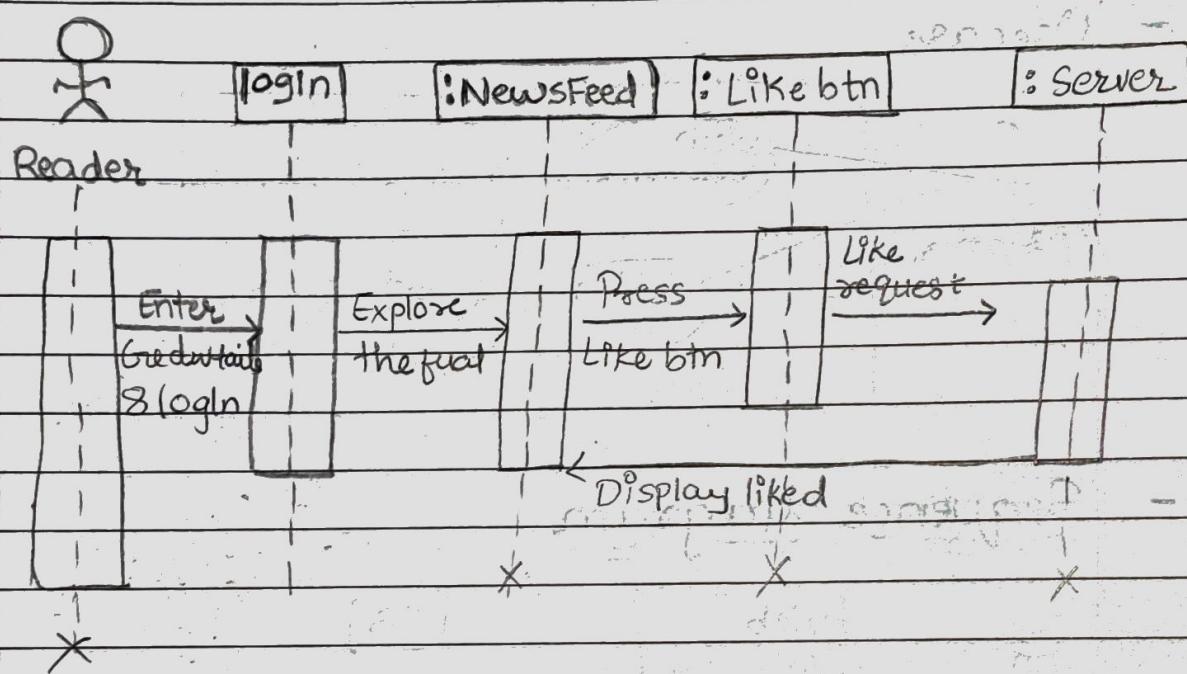
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Sequence Diagram

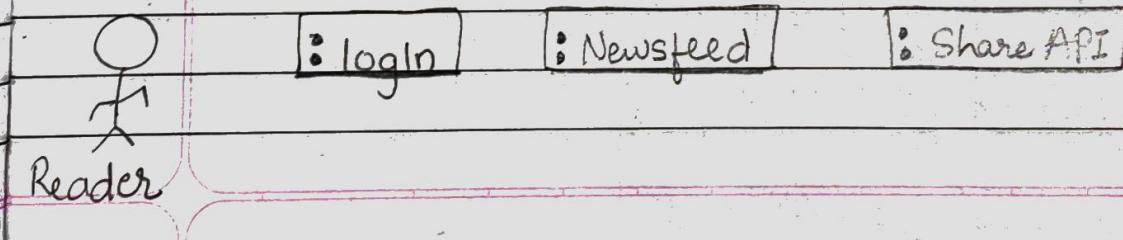
1. In a news portal website Reader wants to like & share the news among his/her contacts.

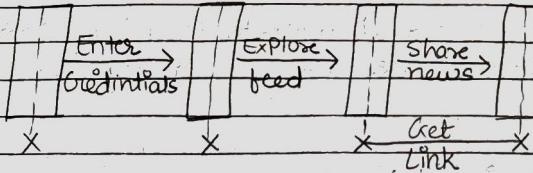
→ Use Case i) Like News
ii) Share News

i) Like News



ii) Share News

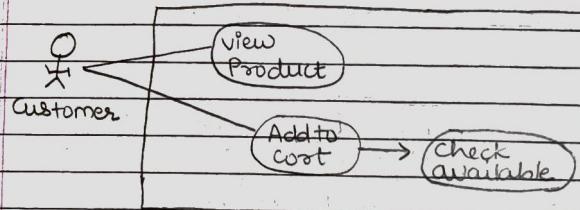




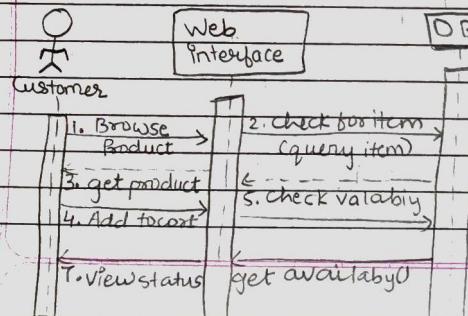
2. Actor : Customer

Usecase :- View product , Add product, check availability

- Usecase

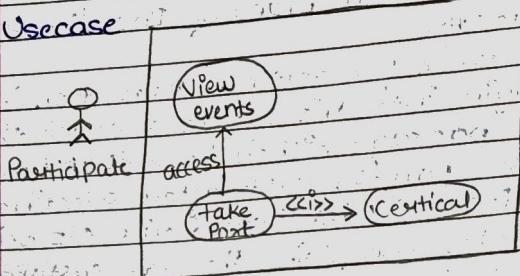


- Sequence diagram

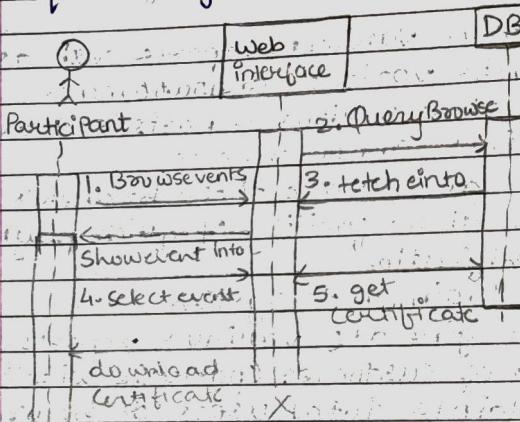


3. Actor : participant
Usecase : take part in event, get certificate

- Usecase



- Sequence diagram



* Scope / Description :-

- Visitor can signup in the portal.
- Visitor can also view plans of Broadband as cable TV package
- Visitor can raise for getting connection (new)
- User can login into the system & select the appropriate package either broadband or cable
- User can also pay the cast after selecting plan by UPI / creditcard / debitcard via OTP verification
- User can raise complain through customer support.
- User can raise complaint through customer support.
- Visitor can view various reports such as annual reports various announcements.
- Visitor can view various reports such as Annual reports various announcements.
- Visitor can locate their branches
- Visitor has direct facility of quick payment via of preverification
- Admin can login in to system
- Admin can generate various reports such as total no of customer (package wise) total complaints total users of broadband
- Admin can upload various announcements and annual reports.

Admin can update various plans.

* Actors :-

1. Visitor
2. User
3. Admin

* Usercases :-

| Sr. No | Actor Associated | Usercases | Type of creation |
|--------|------------------|------------------------------------|----------------------------|
| 1. | Visitor | Sign up view plans | access Broad bond & cable. |
| 2. | Visitor | raise to get conn' | |
| 3. | Visitor | can locate branch | |
| 4. | Visitor | view reports | |
| 5. | Visitor | quick pay facility | <<i>> OTP verify |
| 6. | Visitor | login in | <<i>> Broad OTP verify |
| 7. | User / Admin | Select package | <<i>> cable TV |
| 8. | User | make payment for selected plan | <<i>> verification |
| 9. | User | can raise complaints | |
| 10. | User | can generate various reports | |
| 11. | Admin | access no of users complaints | |

12. Admin

13. Admin

update plans

Upload reports

\leftrightarrow annual report

