

Roll no. 30

SE

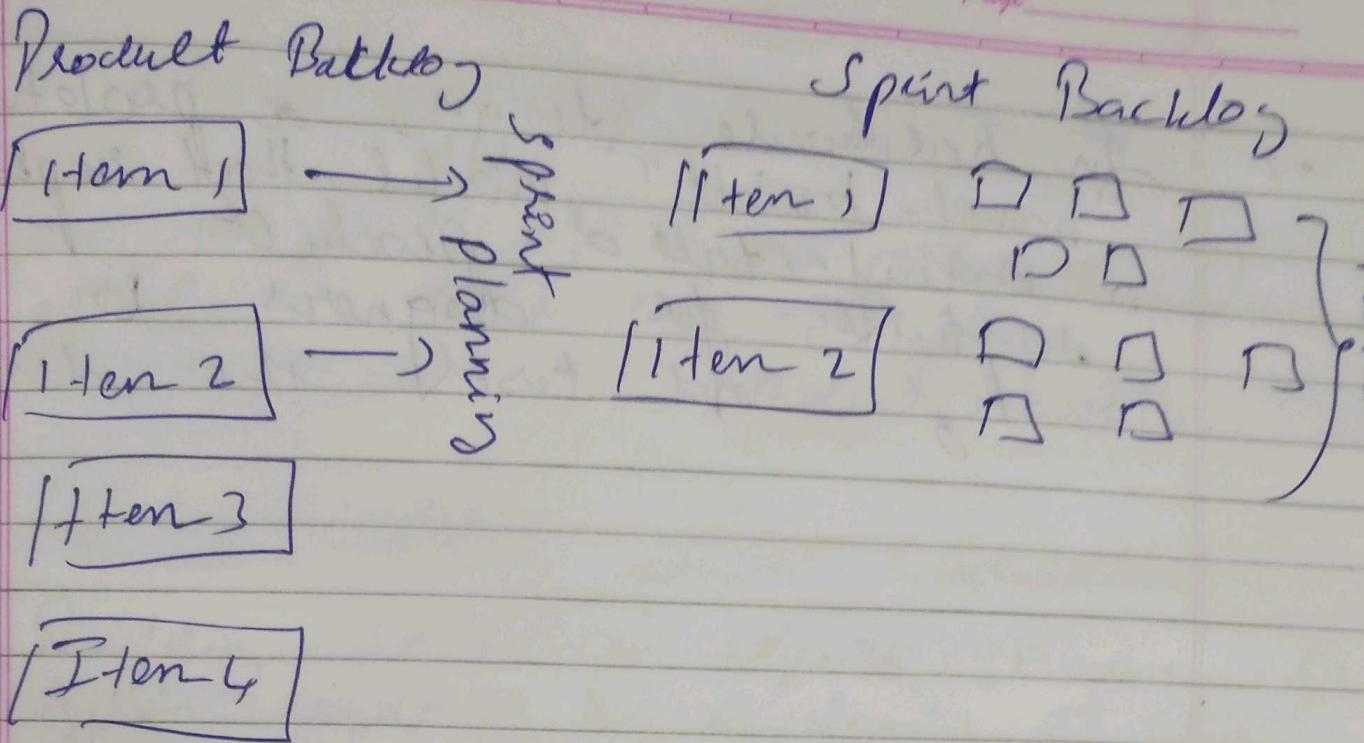
## Q.1 Sprints

Sprint is a short, fineboxed period when a Scrum team works to complete a set amount of work.

Sprint is the "heart" of Scrum and agile methodologies and getting sprints right will help your agile team ship better software.

They make projects more manageable and allows team to ship high quality work faster and more frequently and gives them more flexibility to adapt to changes.

Sprint is based on Scrum which is a framework of getting things done.



## b. Prototype

- It is a supplementary working model of a product or information system, usually built for demonstration purposes as a part of development process.
- In SDLC prototyping model, a basic version of system is built and tested and then worked.
- A prototype is an original object; new objects are created by copying the prototype.

→ In hardware design, a prototype  
"hard-built" model that replaces  
a manufacture product  
sufficiently for designers to  
visualize and test the design.

## Values of XP.

In 1999, there were only 4 values of XP. But in 2<sup>nd</sup> edition, respect was added.

### to Communication

Building software requires communication system requires to developers of system.

The goal is to give all developers a shared view of system which matches the view held by users of system.

### Simplicity

This is called "YAGNI" (you aren't gonna need it) because:

It is the focus on design and coding for the needs of today instead of tomorrow or next time or next 6 weeks, etc -

## 3. Feedback

They are related to different dimensions

→ Feedback from system by writing unit tests.

→ Feedback from customer (aka acceptance tests)

→ Feedback from team

## 4. Courage

It enables developers to feel comfortable with refactoring their code when necessary

Example To throw away some code that is not necessary when we have version control.

## 5. Respect

This also includes respect for others as well as self-respect.

Ex-amp - Coders shouldn't write code in such a way that other coders unit + tests fail.

## How does XP differ from traditional

- One major factor is that XP reduces risks related to programming and project failure
- XP offers feedback, thus it demonstrates the software early and often.
- It creates working software faster
- It supports teamwork so everyone feels as they are part of team.
- They increase many things
  - ① Employee satisfaction
  - ② Retention rate.

→

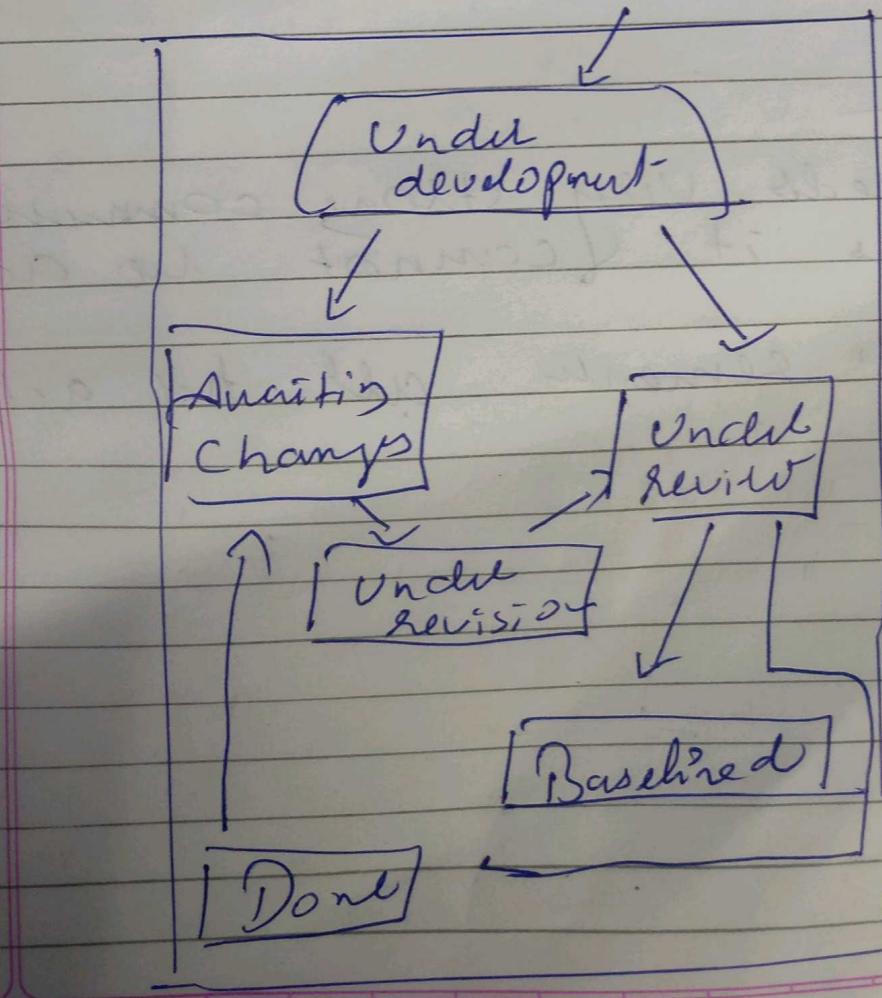
XP is totally visible and accountable unlike traditional approaches. Thus developers make concrete commitments.

## Concurrent Development Model

This is also called as concurrent engineering.

- It defines a series of events that will trigger transition from state to state for each of activities, actions or tasks.
- It allows a software team to repeat iterative and concurrent elements of any of the process model.

(Inactive)



## Merits

- This provides a precise understanding of current state of any project
- Immediate feedback can be derived
- Easy to understand
- Easy to use
- This is applicable to all types of software development process

## Demerits

- This needs very strong communication sometimes it cannot be achieved
- Need to generate all the activity status

## when bus?

- The concurrent model is often more appropriate for system engineering projects where different engineering teams are involved.

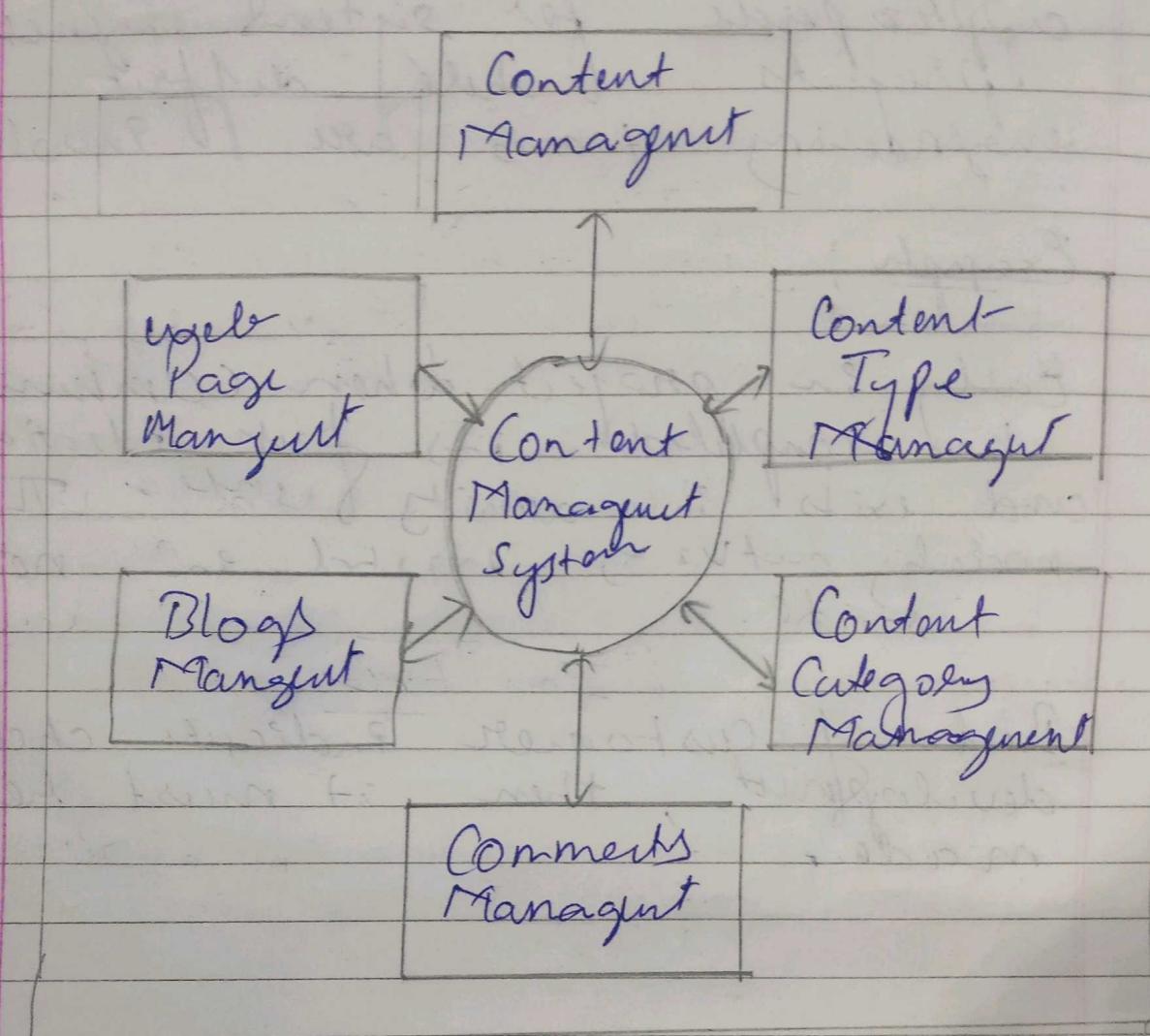
### Example

Early in project when communication has completed its first iteration and exists in a state of semi-stable. This modeling activity existed in none state.

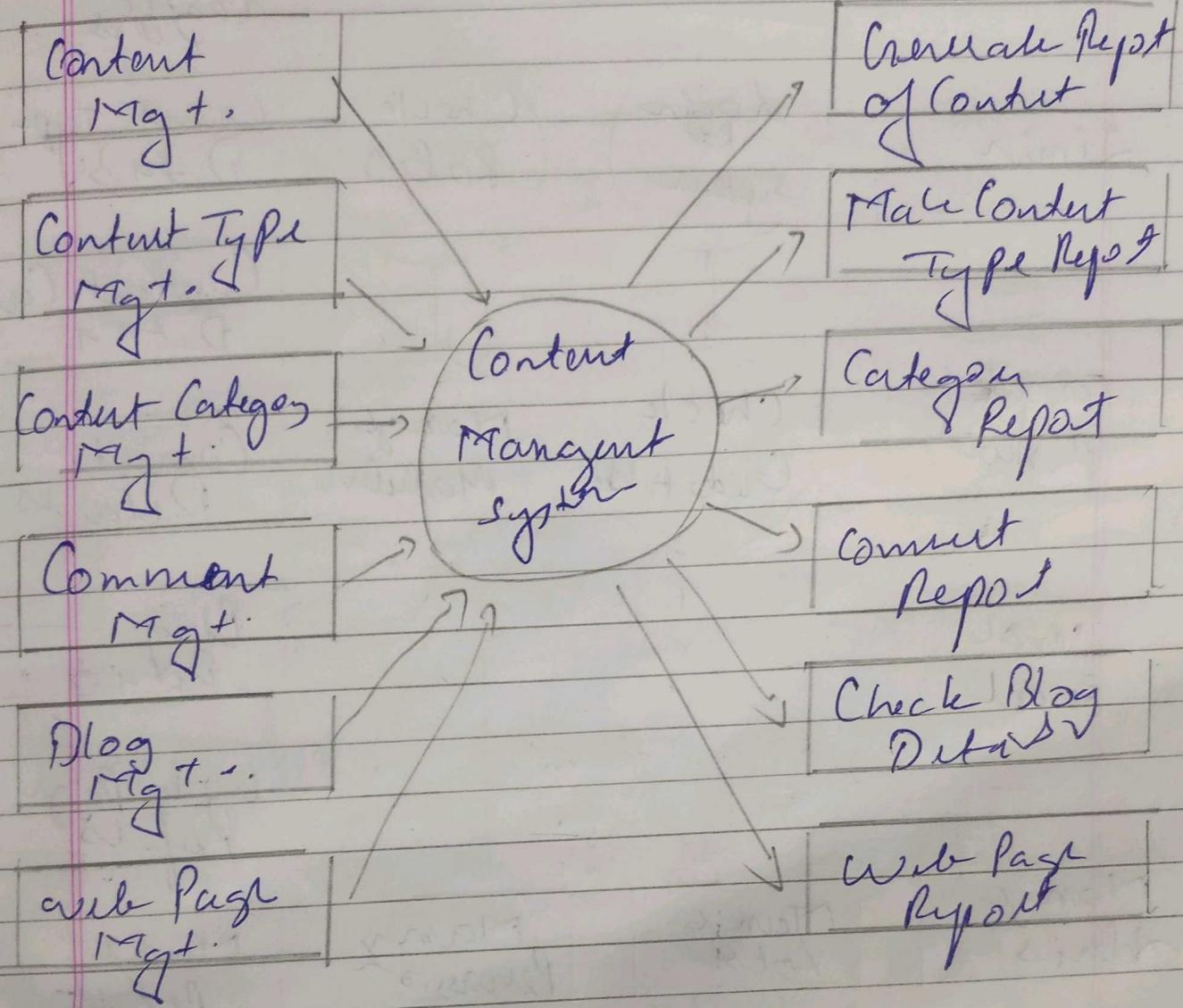
But if customer indicates change in development, then it must be made.

B

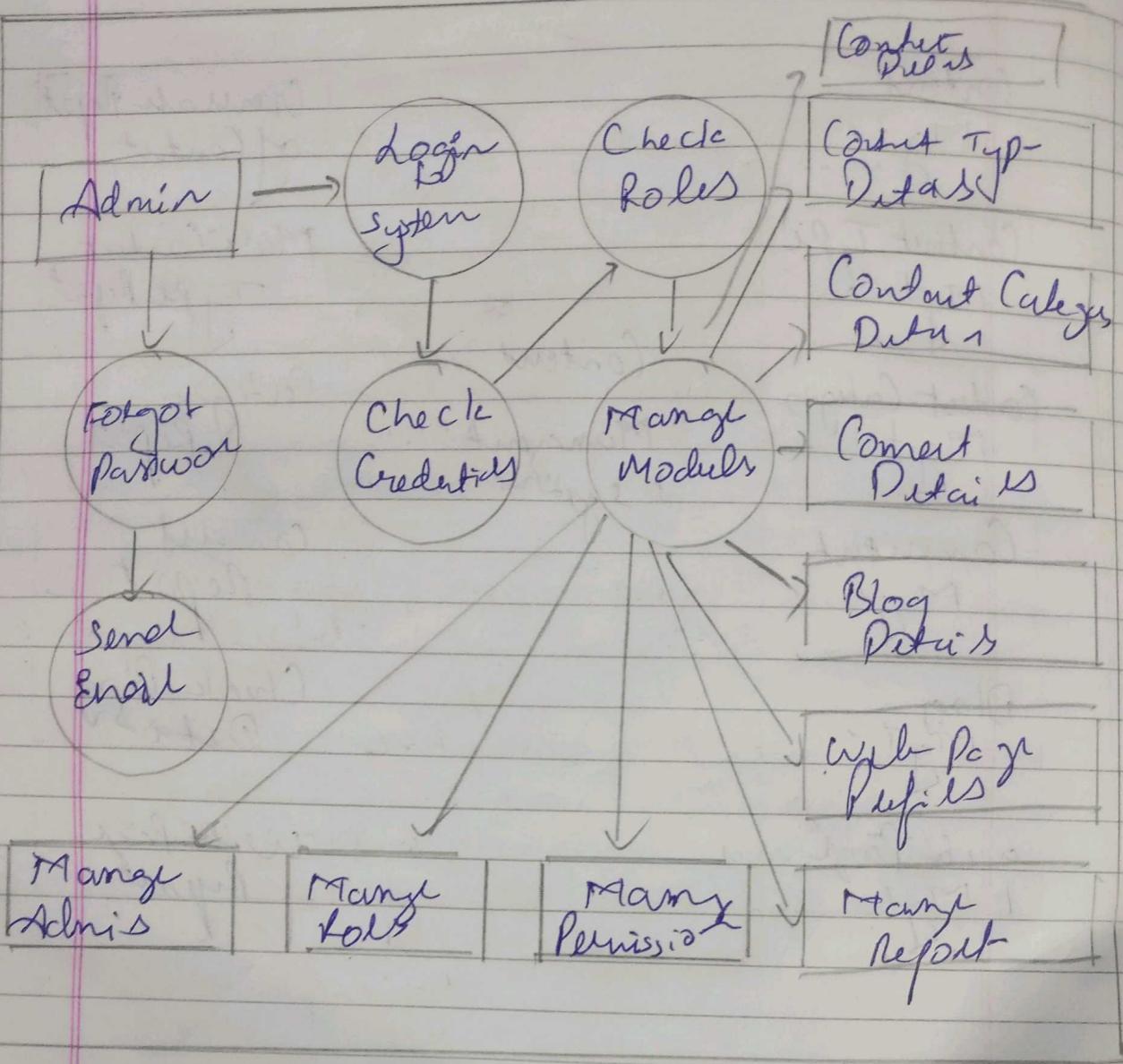
## Content Management System



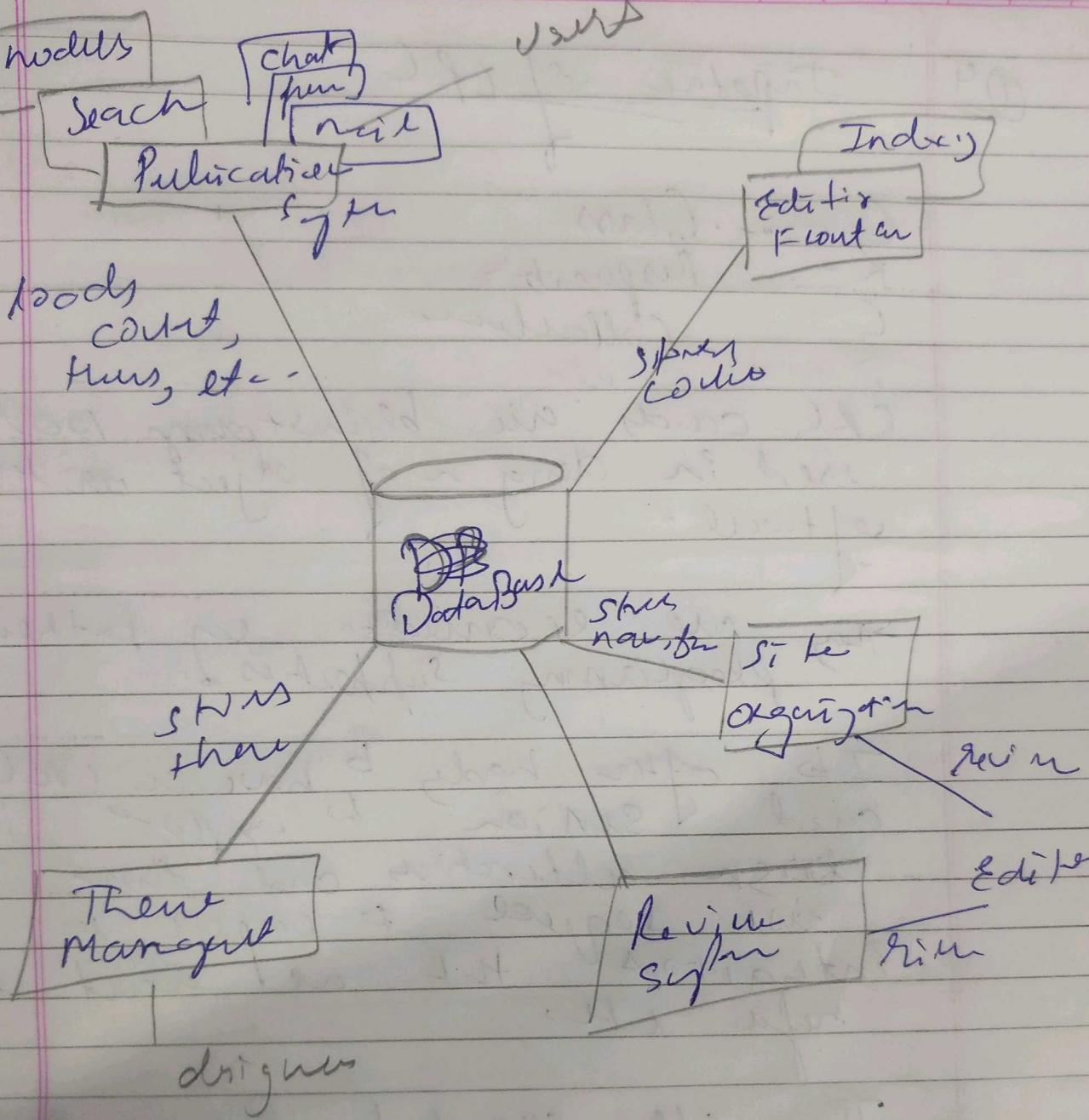
Zero Level ~~Version~~



First Level ~~Report~~



Second Level ~~DB~~



Architecture Diagram

Q4

## Importance of CRC

C - Class  
R - Responsibility  
C - Collaboration

CRC cards are brainstroming tool used in design of object oriented software.

They are demanded by extreme programming supporters.

It's often handy to have a CRC card session to "explore" design alternatives and then use regular to capture key interactions that we want to refine later.

They are created from index cards.

They are putined on 3 stack.

1. Top left → Class name
2. Left → Responsibilities
3. Right → Collaborations

Example

Class	Sales
Responsibilities	Collaborations
• Knowledge Behavior Operation Promotion	Partners Clients

CFC card Example of Sales.

~~E-commerce - 2~~

Class → Transaction

### Responsibility

- Money Transfer
- Auditing

### Collaboration

- Card Reader
- Clients