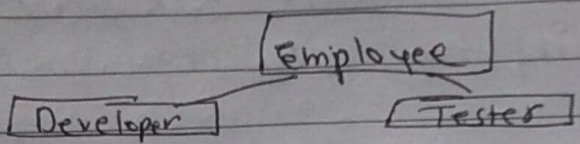
Serial No.	Date	Title

[SECTION-A]
[Answer-1]

Specialization - Specilization is a top-down approach, & it is opposite to generalization. In Specilization, one higher level entity can be broken down into two lower level entities.

Ex- Employee
↳ Developer
↳ Tester

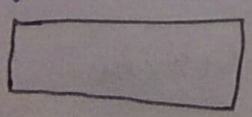


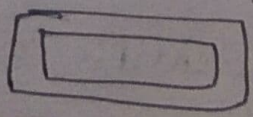
DML - * It stands for Data Manipulation language.
It is used for accessing & manipulating data in database.

DML Commands → Select
→ Insert
→ Update
→ Delete

Logical data Independent - It is ability to change the logical schema without changing the external view

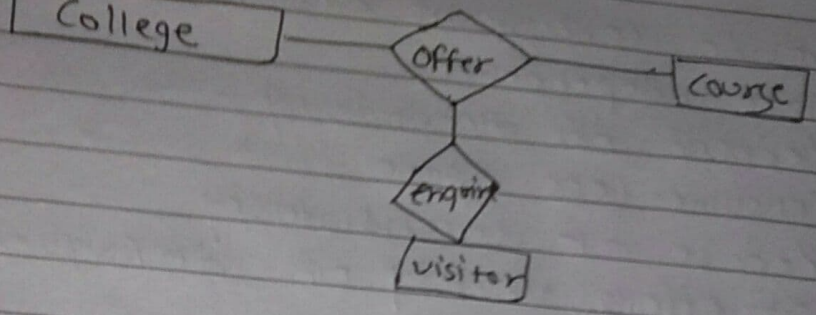
Strong Entity Set	Weak Entity Set
It have alway 1 primary key.	* It have a foreign key referencing PK of strong ent
It is represented by single rectangle	* It is represented by double rectangle.





(e) Aggregation - It refer to the process by which entities are combined to form a single meaningful entity.

Ex -



[SECTION - B]

[Answer - 2]

(a) Role of DBA.

* Schema definition - The DBA create the original DB schema by executing a set of data definition statements in the DDL.
* Storage Structure & access method definition. DBA DBA
* Schema & Physical organization modification - comes out changes to the schema & physical org to reflect the changing needs of the org, or to alter the Physical org to improve performance.
* Granting of authorization for data access - DBA can regulate which part of the DB various user can access.
* Routine Maintainance - Ensuring that enough free disk space is available for normal operation.

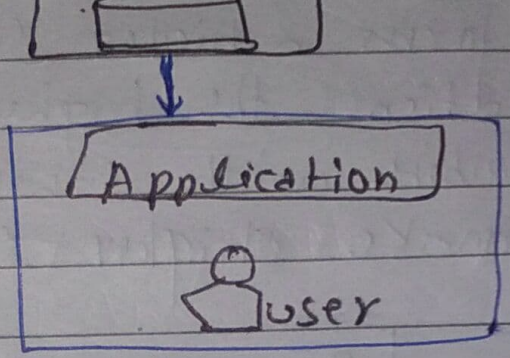
Reduced of redundancy
Consume less Space
Reduse of inconsistency
It offers variety of techniques to store & retrieve data.
It offer data integrity & security.
easy to operate
easy to find data with using command.

[Answer-4 b]

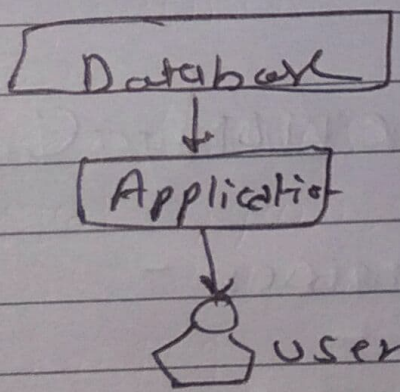
Architecture of DBMS, - * A DBMS architecture allows dividing the DB system into individual components.
A DBA is a representation of DBMS design.
It helps to design, develop, implement, maintain.

Types of DBMS Architecture

One tier Architecture
Two " "
Three " "



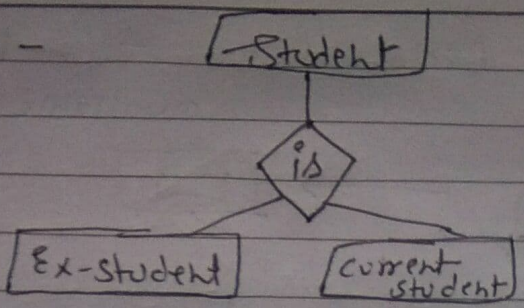
3 Tier Architecture - It contains application layer blw the client & Server.



(Answer - 56)

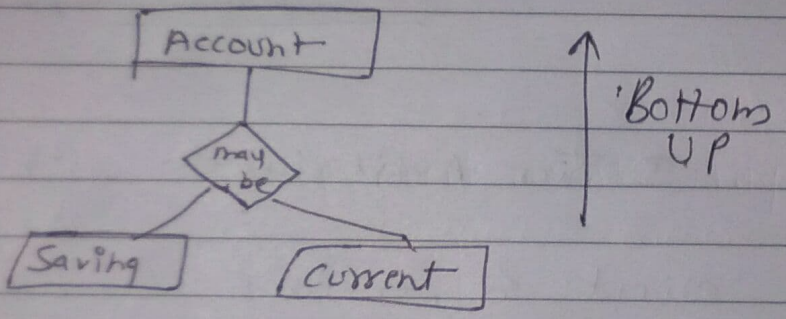
Specilization - It is opposite to Generalization
* It is top down approach in which one higher level entity can be broken down into 2 lower level entity.

for Example -



Generalization - It is a bottom-up approach in which two lower level entities combine to form a higher level entity. In generalization, the higher level entity can also combine with other lower level entities to make higher level entity.

Example -



[SECTION-C]

Answer -

(b) Disadvantages of file system which were removed by DBMS.

- In file system there can be inconsistency so in DBMS, there is no inconsistency due to normalization.

* It is simple but not secure so DBMS provides

Security:

Concurrent DB accen is not possible but DBMS is provide DB accen is possible.

File system is not provide atomicity so DBMS remove the problem & provides atomicity.

File system is decentralized system but DBMS are centralized system.

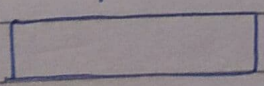
File system have not provide backup & recovery of loss data so DBMS remove this problem and provide backup & recovery features.

[Answer - 7(a)]

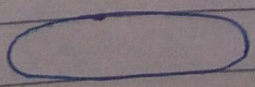
ER Diagram — It stands for Entity-Relationship Diagram, also known as ERD.
It helps to explain logical structure of DB.

Components of ER Diagram

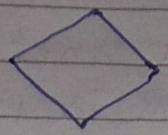
Rectangles: It represent entity set.



Ellipses: It supresent attributes.

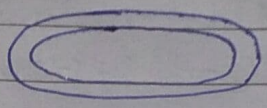


→ Diamonds - It represent relationship set.

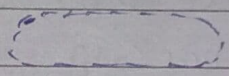


→ Line - It represent & Donate flow

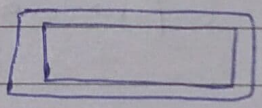
→ Double ellipse - It represent multivalued attributes



→ Dashed ellipse - It represent Derived attributes.

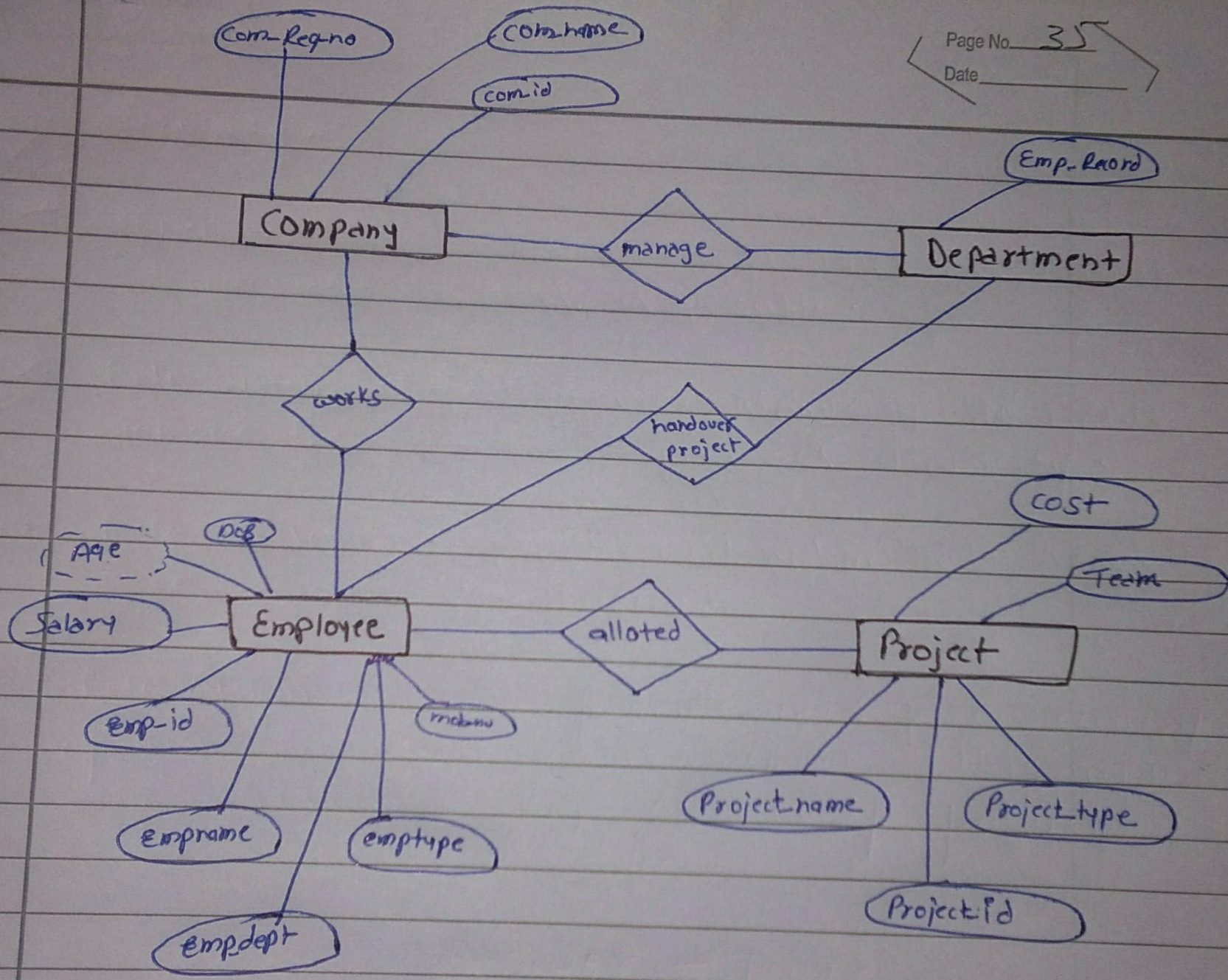


→ Double Rectangle: It represent weak entity set



ER Diagram for Employee Project Management System.

Entities
- Employee
- Project
- Department
- company.


Com_Reg_no
Com_name
com_id
Company
manage
Department
Emp_Record
works
handover project
DOB
Age
Salary
Employee
allotted
Project
cost
Team
emp_id
empname
emptype
empdept
Project_name
Project_type
Project_id