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ID : 14943

CLASS : SE

SECTION : B

PAPER : DATA BASE

INSTRUCTURE NAME :

MAM

RIMSHA

KHAN

Question No # 1

Which attribute in the following table is a ..... will ever be added to this table

Answer # 1

NAME	Semester	Department	Cell
Sania	1	Cs	03334324 23
Romaisa	1	Cs	03335391 23
Alina	1	Cs	03150031 29
Aleza	3	Cs	03455591 822

a) Candidate Key:-

⇒ Candidate Key is a set of attributes that Uniquely identify tuples in a table.

⇒ Candidate Key is a Super Key with no repeated

attributes.

⇒ The Primary key should be selected from Candidate keys.

⇒ Every table must have at least a Single Candidate key.

⇒ A table can have multiple Candidate keys but only a Single Primary.

Properties of Candidate Key:-

⇒ It must Contain Unique value.

⇒ Candidate Key may have multiple attributes.

⇒ Must not Contain null value.

⇒ It should Contain minimum fields to ensure Uniqueness.

⇒ Uniquely identify each record

in a table.

Example:-

In the given table Student ID, Cell are Candidate Keys which helps Us to Uniquiely identify the Student record in the table.

Candidate Key

Name	Semester	Department	Cell
Sania	1	Cs	03334324234
Romaisa	1	Cs	03335399123
Alina	1	Cs	03150034224
Ayeza	3	Cs	03455555548 22

Answer # 2

Data Redundancy:-

⇒ Data Redundancy in a condition that can cause the same piece of data to be sorted in multiple places of database as a storage.

⇒ Repetition or superfluity of data.

⇒ Reduces data consistency.

⇒ Negative Impact.

Data Integrity:-

Data integrity is the process of ensuring that the data is accurate, unchange and consistent over the its whole life cycle.

⇒ Maintenance and assurance of the accuracy and consistency of data over the

entire life cycle.

⇒ Help to improve data Consistency

⇒ Positive impact.

Answer #3

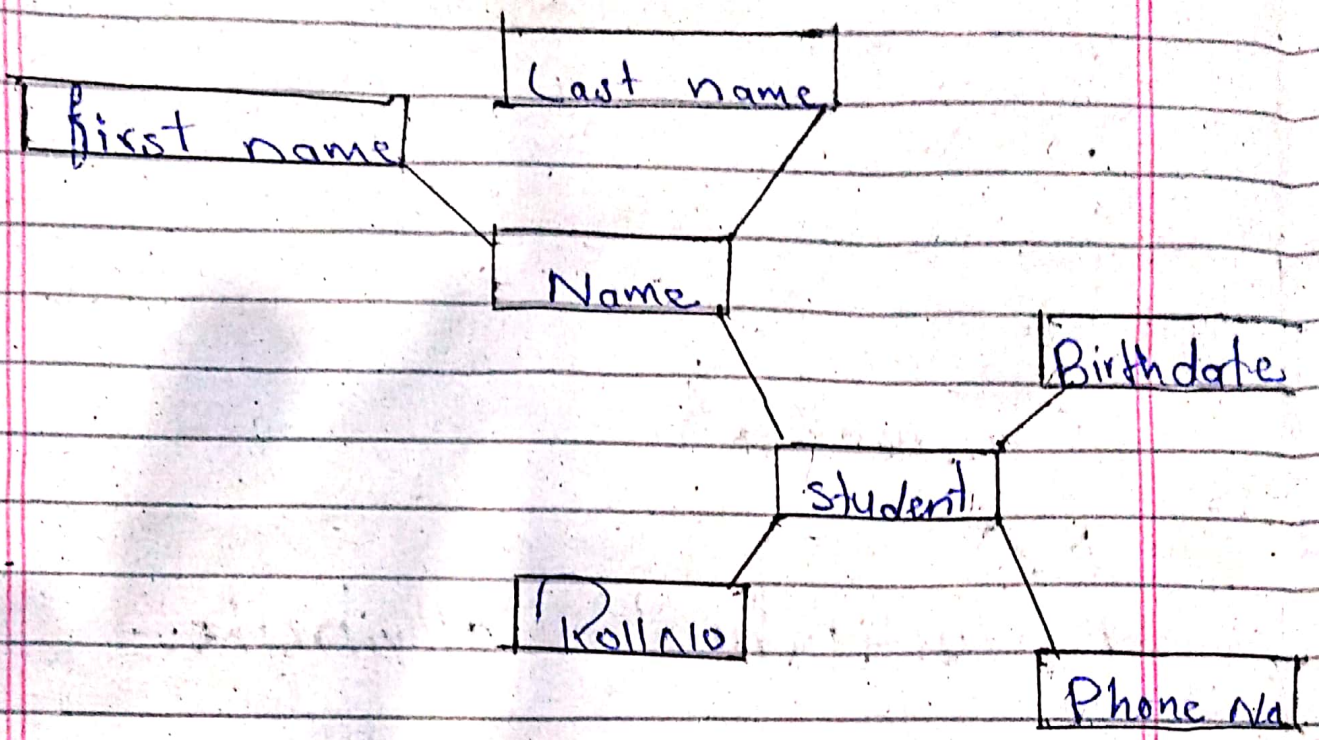
Multivalued attribute:-

⇒ An attribute that can hold multiple values is known as multivalued attribute.

⇒ It is represented with double ovals with an ER-Diagram. e.g A person can have more then one number So the phone number attribute is multivalued.

Example

P-1-0



⇒ Composite attribute is represented in Conceptual mode.

Conceptual Model

ANSWER # 4

⇒ Doing rapid development of data base applications in a busy Corporate Setting.

=> Extensive Constraints automated tasks error logs, and defensive Coding.

=> The maintence task. fixing bugs and deploying the fixes.

=> cleaningup the data

=> Dealing with Concurrency queries lissue.

5) How are the following represted Using ER-Diagram:-

Answer#5

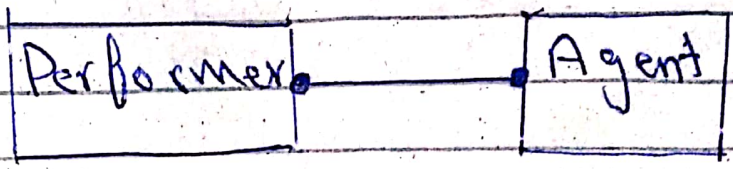
Mondatory One, mandatory Many. Optional One, Optional Mary?

(i) **Mandatory One:-**

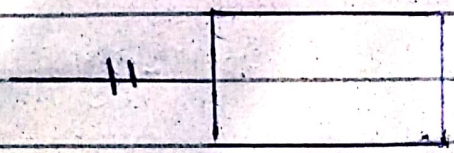
In a mandatory relationship every instance of one entity must

Perticipate in a relationship with another entity.

e.g:-



Relationship Cardinality:- (OR)

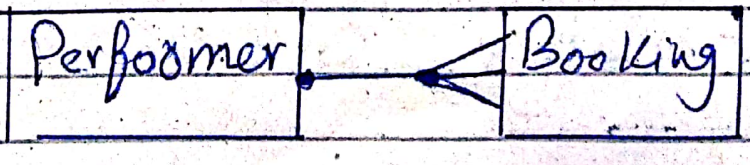


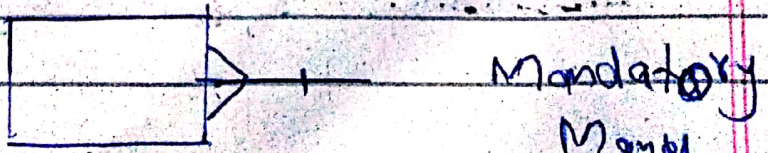
mandatory one

ii) Mandatory Many:-

In a mandatory relationship every instence of more then one entity must perticipate in relationship with another entity.

e.g

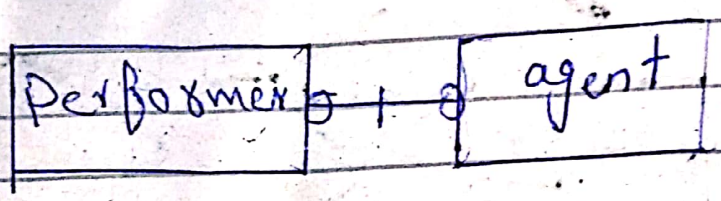




Optional One :-

In a Optional relationship any instance of one entity might participate in a relationship with another entity, but this is not Compulsory

e-g :-

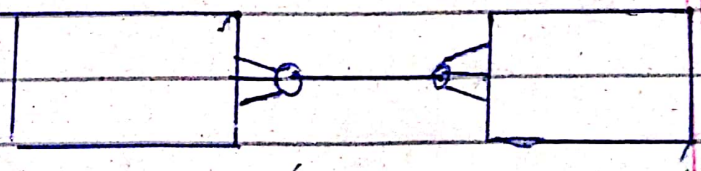


OR.

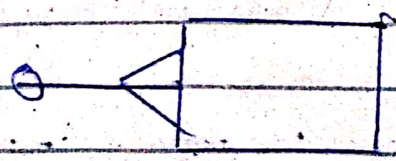
Optional Many :-

In a optional Many relationship any instance of more than one ~~enjoy~~ entity might Participate in a relationship with another entity.

e-g :-



OR



Answer # 6

Database Backup Approach:-

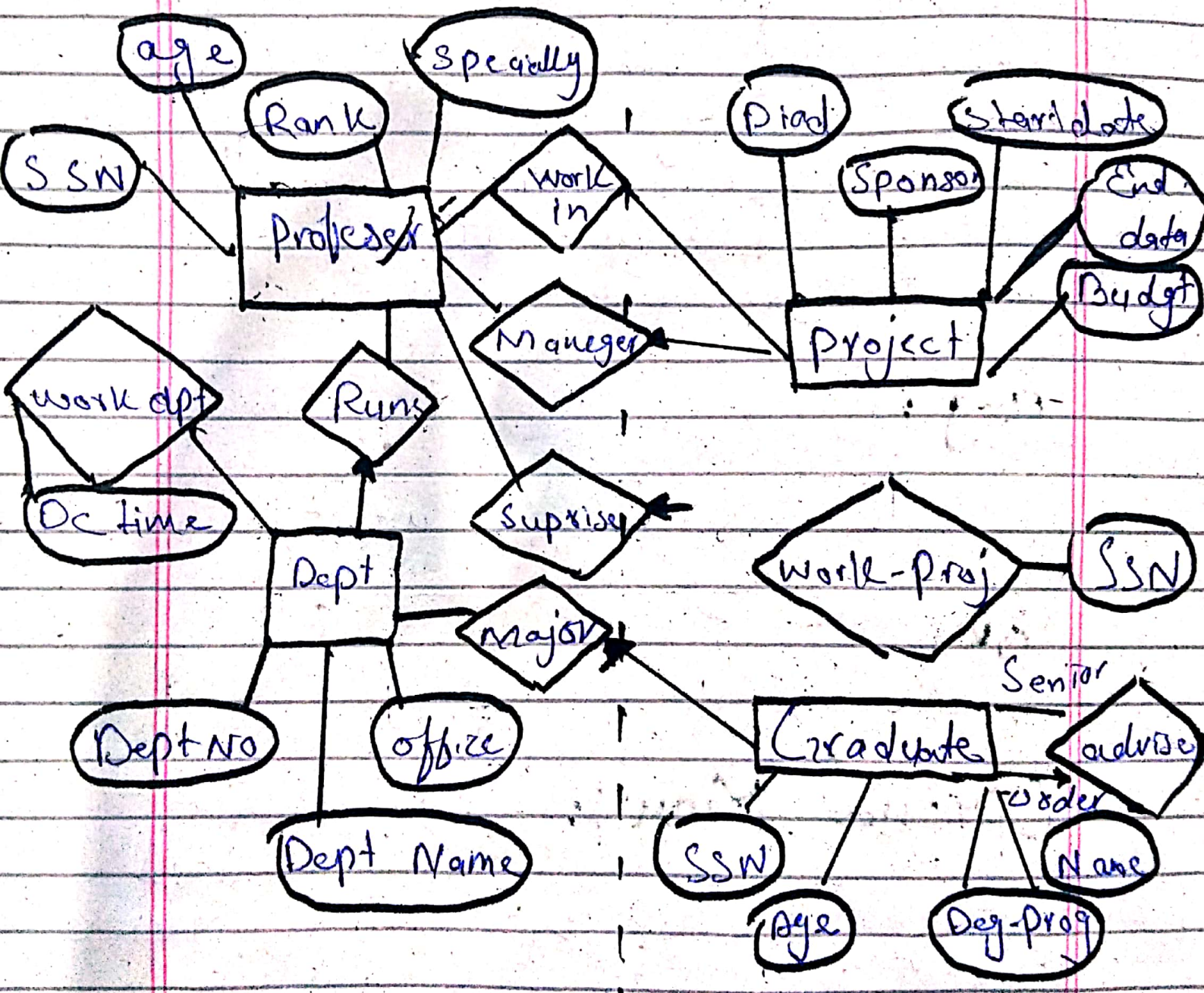
Backup one of several database types to chosen destination.

Setup automated or manual backup at the needed extensiveness

Integration with other backups and IT infrastructure and management Solutions.

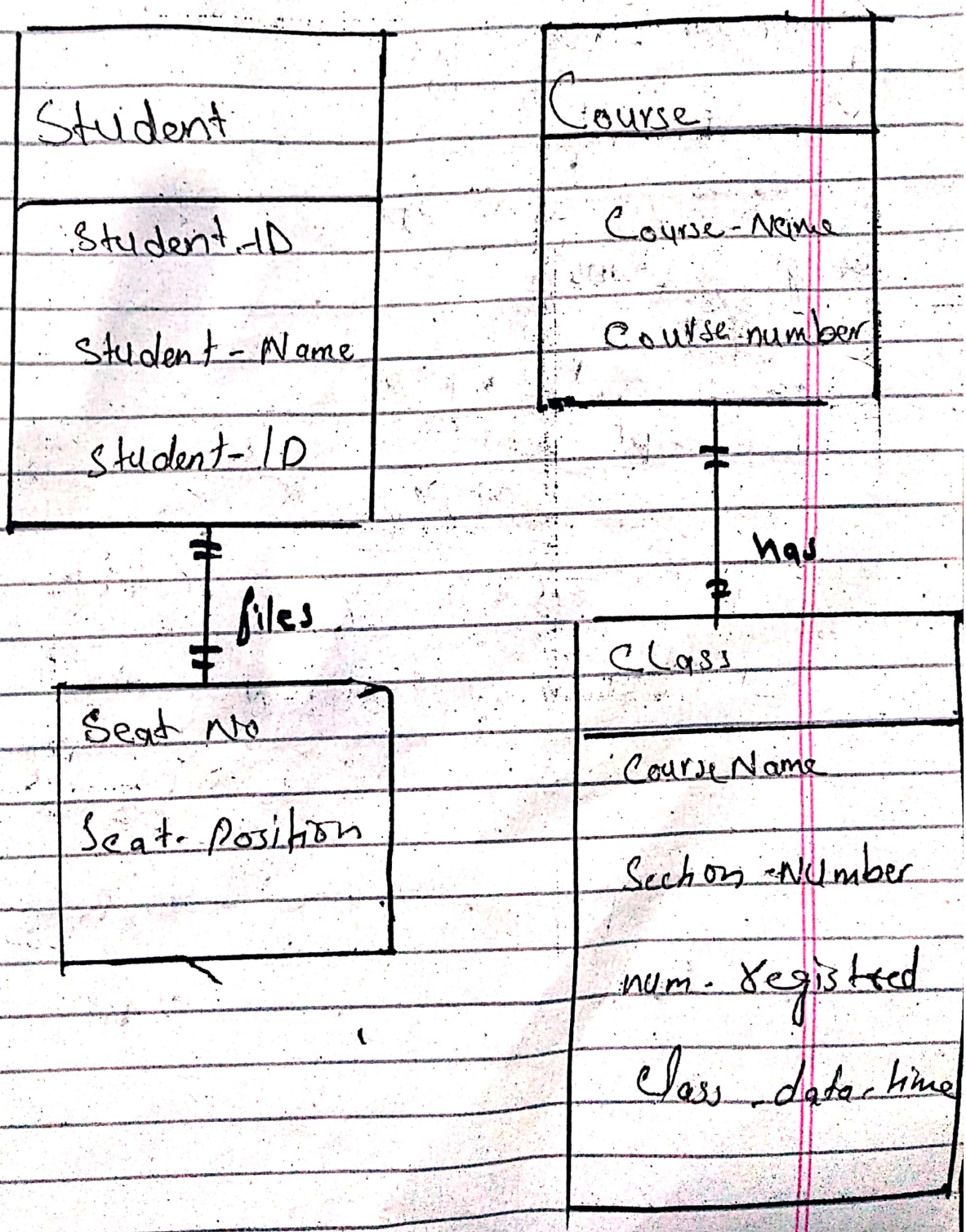
Question No#2

Draw an ERD from the following Business Rule Use proper notate of the type of atribute.



Question #3

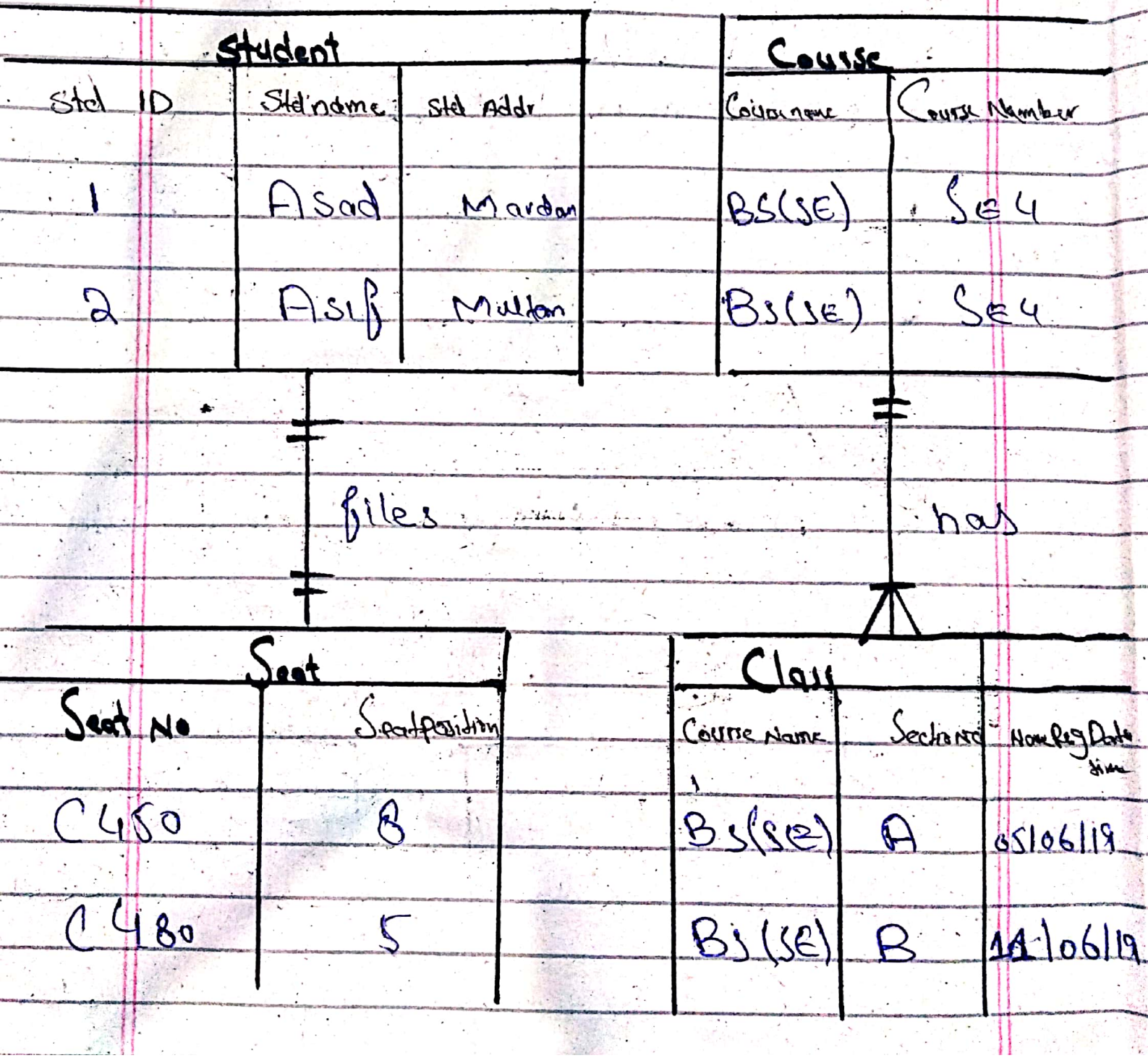
Convert the following Conceptual model to Relational model?



Answer # 3

Mapping Process:-

- Create table for weak entity Set.
- Add all its attributes to table as field.
- Add the Primary Key of identifying entity Set.
- Declear all foreign key Constraints.


Student
Std ID
Std name
Std Addr
1
Asad
Mardan
2
Asif
Multan
Course
Course name
Course Number
BS(SE)
SE4
BS(SE)
SE4
files
has
Seat
Seat No
Seat position
C450
B
C480
5
Class
Course Name
Section
Class Reg Date time
BS(SE)
A
05/06/19
BS(SE)
B
11/06/19