

Date: 27-07-2025

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Title - conceptual Design using ER model  
- School management system.

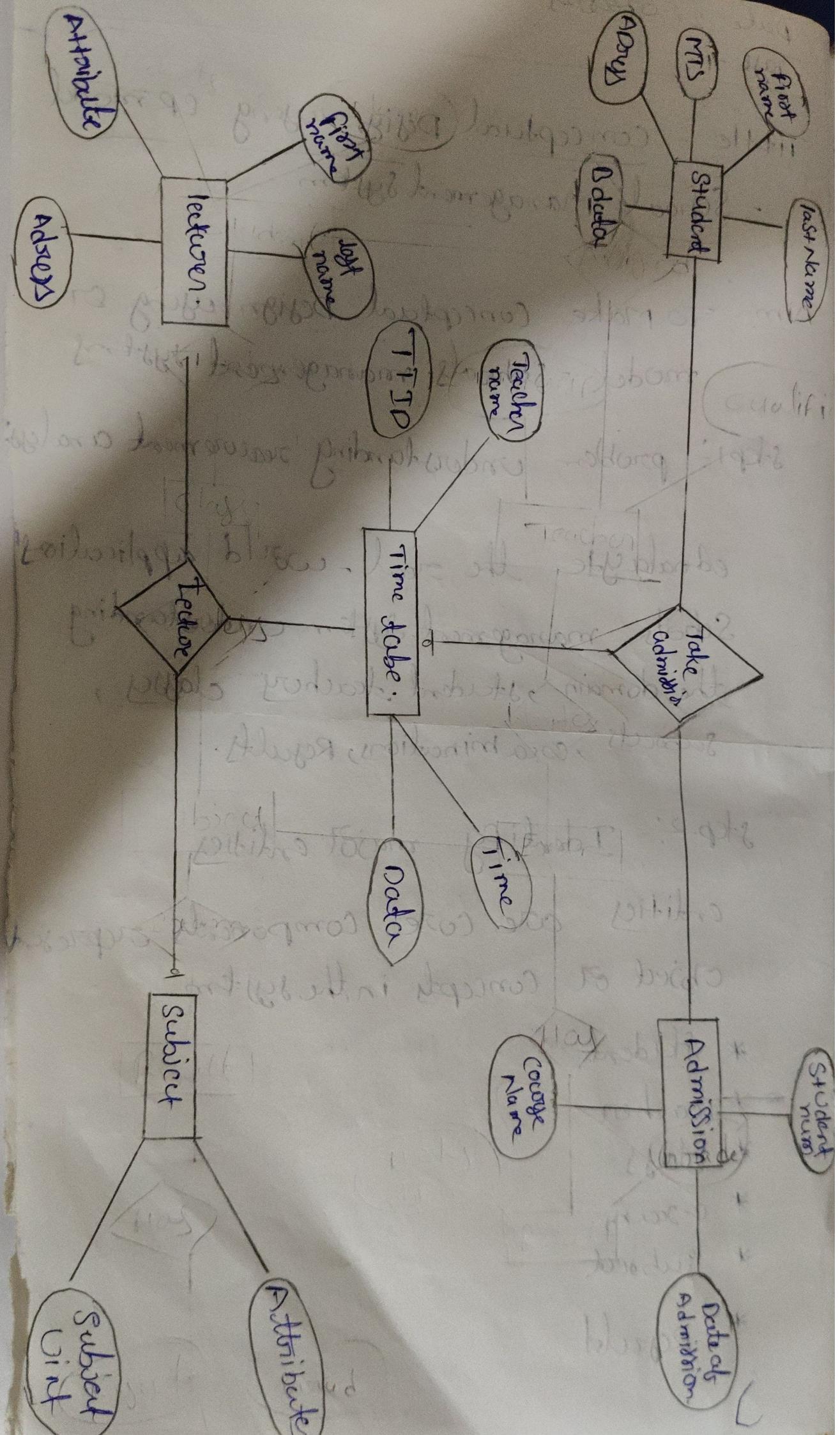
Aim: To make conceptual Design using ER  
model - schools management system

Step 1: problem understanding requirement analysis

analyze the real-world application  
Schools management system understanding  
the domain, student, teacher, class,  
subjects, examinations, results.

Step 2: Identify major entities  
entities are core components represented  
object or concepts in the system.

- \* Student
- \* Teacher
- \* Class
- \* Exam
- \* Subject
- \* Result



Step-3 : Identify attributes for each entity

entity

attributes

Student

Student RD(CR): Name, age  
gender, phone, address, class

Teacher

RD

Teacher RD(DK): Name, qual-  
ification, contact no

class

class RD (CR): class name,  
section.

~~subject~~

Subject ID, Exam ID, Date  
time.

Result:

Result ID, Subject ID, Grade

Step-4 : Define Relationship between entities

\* A student is assigned to one class

\* A teacher teaches many subjects

\* A class includes many students

\* A subject is assigned to one teacher

Step-5: Draw ER Diagram using draw io instructions.

- \* From the left panel.
- \* Using rectangles for entities
- \* Use ellipses for attributes
- \* Use diamonds for the relation
- \* Connect using solid lines.

Example ~~Relationships~~:

- \* Class (1) - includes  $\rightarrow$  (M) student
- \* Teacher (1) - teaches  $\rightarrow$  (M) subject
- \* Subject (1) - has  $\rightarrow$  (M) exam
- \* Student (1)  $\rightarrow$  has identity  $\rightarrow$  (M) exams.

Result:- For the ERD link between student and Exam.

Input for ER design

~~Real time school system scenario - user requirement: Student Record, Teacher Assignment, class management, Exam, Tracking, Resource management.~~

Database Design Rule: identify Entities, Attributes, Relations, Cardinality, Keys.

out put :- entity - Relationship Diagram

(ER) clarity shows. All indented entities with using attributes all relationship with correct and named opposite

VELTECH	
EX NO.	19
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	19
SIGN WITH DATE	W 28/12/17

VELTECH	
EX NO.	19
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (4)	5
TOTAL (15)	15
SIGN WITH DATE	M 28/12/17

Result:- Hence the entity relation diagram of shall database management system was successfully drawn