TASK:-1.1 Date:-29/07/2

College Slot Booking and Managment Database

Tools Required:- https://draw.io

Step 1:- Problem understanding & Requirement analysis

→ Analysis real world application: College slot booking and managment system

→ Understanding domain: STUDENT, DEPARTMENT, COURSE, SLOT

Step 2:- Identify Major entity.

* Student
* DEPARTMENT
* COURSE
* SLOT

Step 3:- Entity Attributes

→ STUDENT :- student_id(pk), name, email, academic year

→ DEPARTMENT :- dept_id(pk), dept_name

→ COURSE :- course_id(pk), course_name, credits_offered, prerequisites, course_type.

→ SLOT :- slot_id(pk), slot_time, Instructor data, slot_type, Venue.

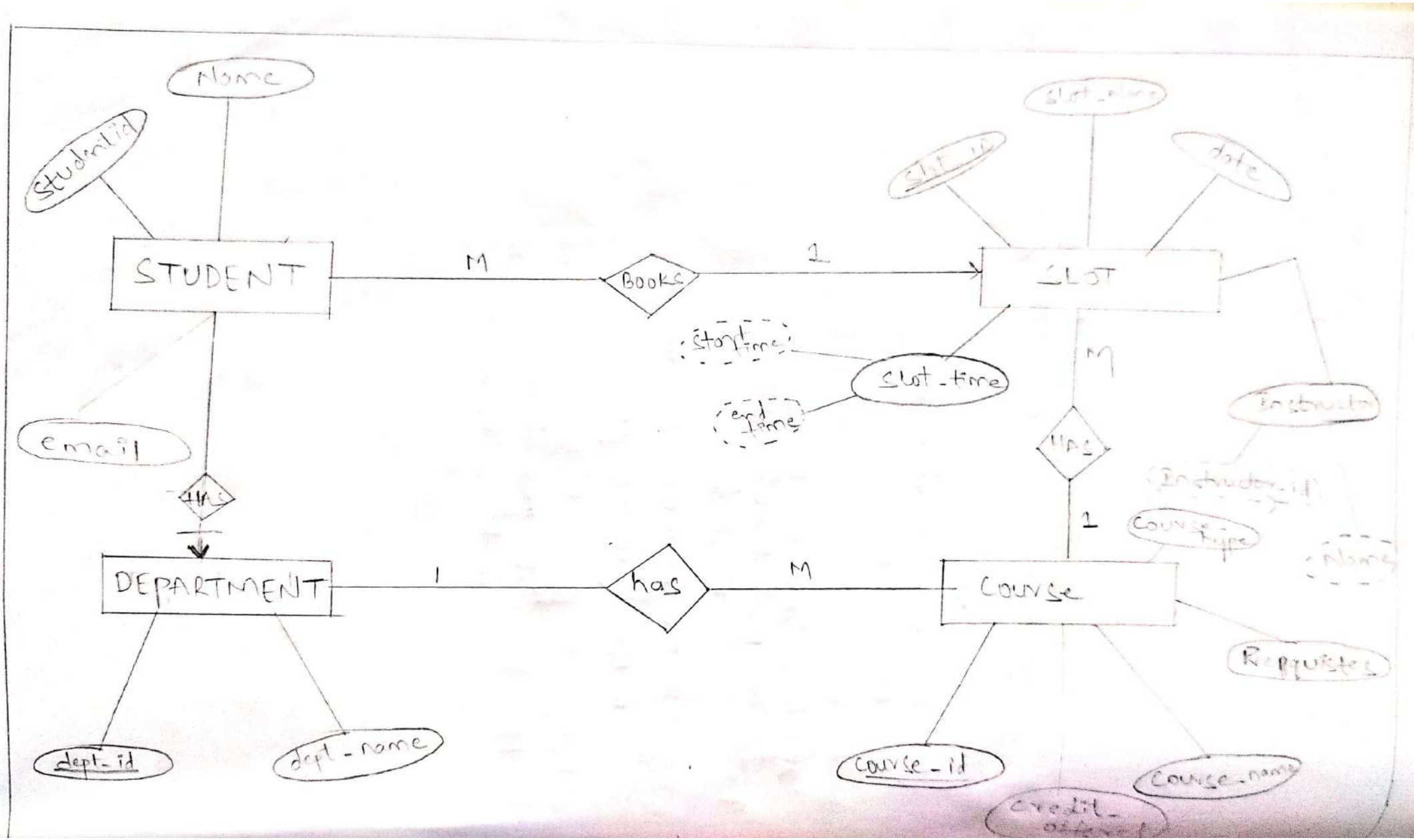
Step 4:-

→ A student has one department

→ one department has many courses

→ A course has many slots

→ one or more students chooses one slot


Name
StudentId
STUDENT
M
BOOKS
1
SLOT
Slot_id
Slot_place
date
StartTime
Slot_time
EndTime
M
Instructor
Email
HAS
HAS
1
Instructor_id
Course_type
Name
DEPARTMENT
1
has
M
Course
Requisites
dept_id
dept_name
Course_id
Course_name
Credit_

Steps :- Draw ER Diagram using draw.io.

→ open https://draw.io.
→ chosen blank diagram → click create
→ from left pernol, drag the following
→ use rectangular box for Entities (STUDENT: DEPARTMENT)
→ use ellipses for Attributes (student_id, dept_id)
→ use diamonds for Relationship (has, books)
→ connect using lines:
Solid lines for relationship
. Connectors
→ use pk or underline to denote primary key
→ use double ellipse for multivalued attributes (if any).
→ use labels such as (1:N), (M:N), etc, to show cardinalities.

Step 6 :-
Relationship :-

→ student (1) → (1) Department
→ Department (1) → has → (M) courses
→ course (1) – has → (M) slots
→ student (M) – Books → (1) slot

Input :- College slot Booking system manages student registering for courses, taught by faculty in scheduled slots and classroom, senario. user requirement.

Output :-

Entity Relationship Diagram that clearly shows:

→ All identify entities with attributes

→ All relationship with appropriate cardinalities

→ Foreign keys and primary key marked appropriately.

Result :-

This task helped us to understand the importance of conceptual design in database system. Using draw.io We were able to visually model a real-time 'college slot booking and management system' into ER diagram.

VEL TECH	
EX NO. 12	14
PERFORMANCE (5)	4
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	3
RECORD (5)	
TOTAL (20)	13
SIGN WITH DATE	

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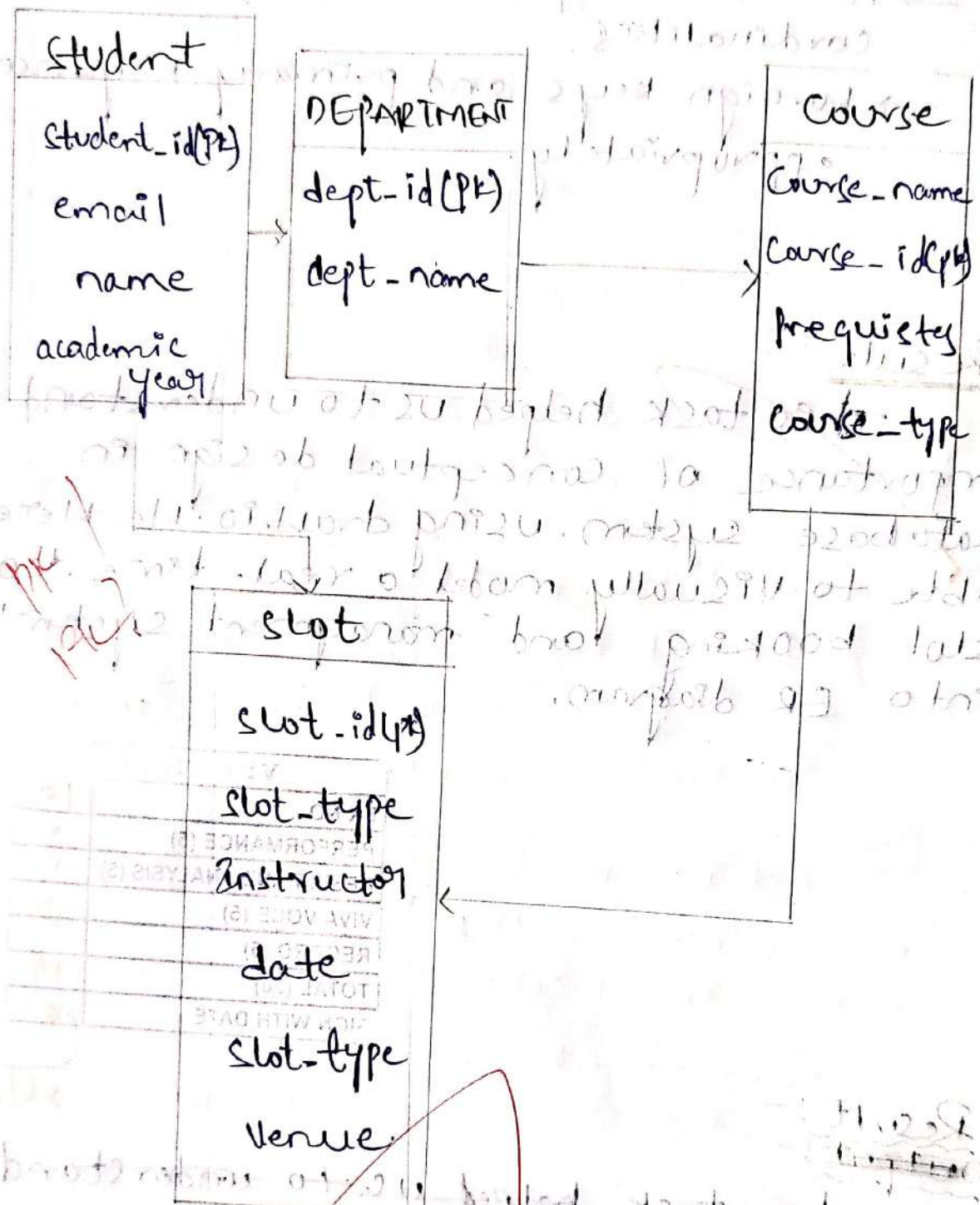
Result :-


Student
Student_id(PK)
email
name
academic year
DEPARTMENT
dept-id (PK)
dept-name
Course
Course_name
Course_id(PK)
Prequisites
Course_type
slot
slot_id(PK)
slot_type
Instructor
date
slot_type
Venue

TASK 1.2 Date:-

1.2 Convert ER Diagram into Relational model

Aim:-

To Draw ER diagram for College slot management.

Steps for Converting the ER diagram to the table

- Entity type becomes a table
- All single-valued attribute becomes a column for the table
- A key attribute of the entity type represented by the primary key
- The multivalued attribute is represented by a seperate table
- Derived attributes are not considered in the table.

VEL TECH	
EX NO.	1b
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	
TOTAL (20)	15
SIGN WITH DATE	

26/8

Result:-

Hence, the relationship model of college slot booking & managment using ER model was Completed.