

28/11/20

Healthcare Management System

Aim:

To a conceptual Design using ER diagram with help of draw.

Tools required:

Steps involved in creating ER diagram

Step 1: problem Understanding & Requirement Analysis.

* Analyze the real world application Healthcare Management system.

* Understand the domain, hospitals, patients, Doctors, Appointments, prescriptions.

Step 2: Identify Major Entities

Entities are components represents object or concepts in the system.

Patient

Doctor

Appointment

Prescription

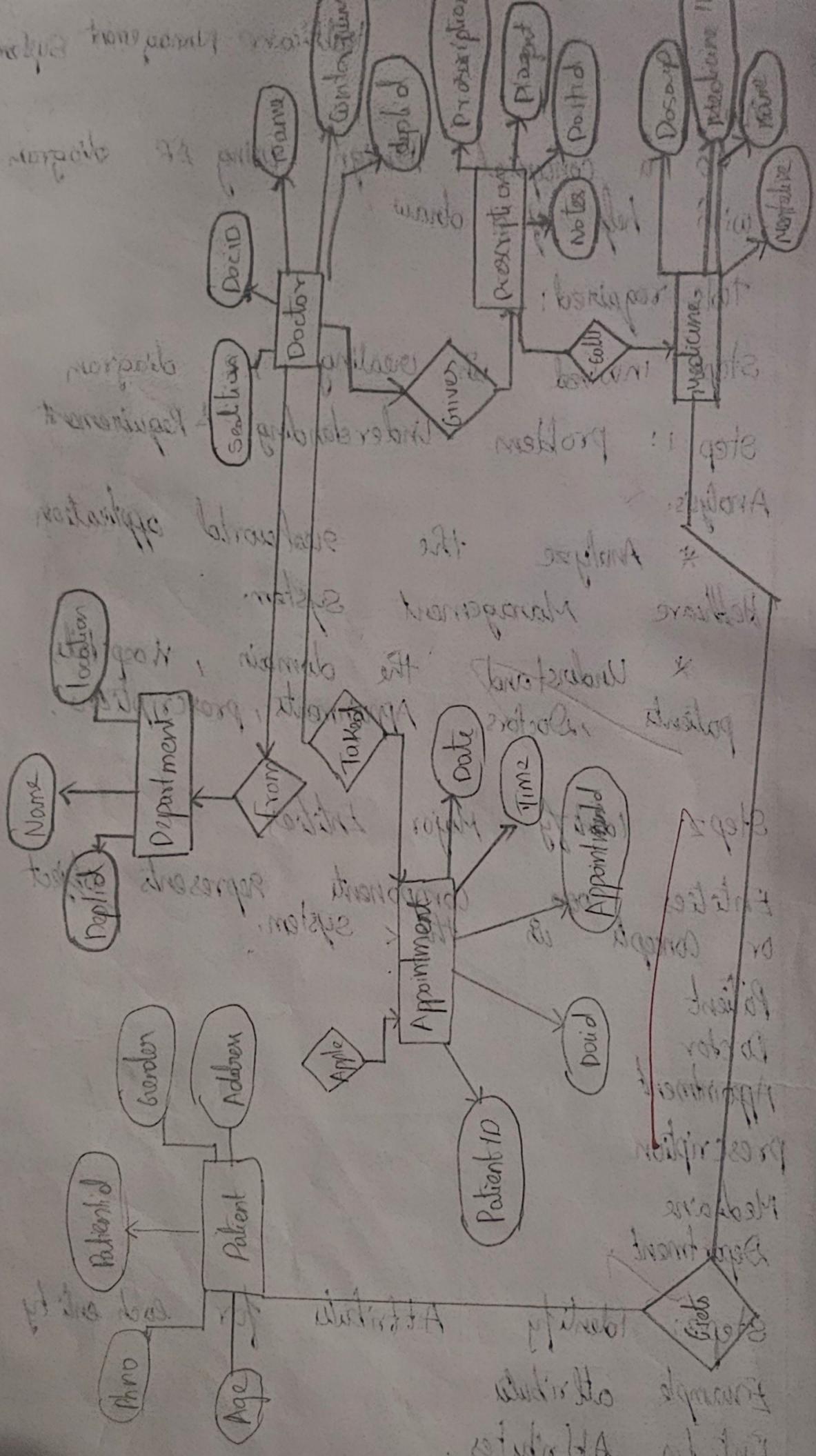
Medicine

Department

Step 3: Identify Attributes for each entity

Example attributes

Entity Attributes.



Step 4: Define Relationships b/w Entities

- * A patient books one or more Appointments
- * A Doctor conducts many Appointments
- * An Appointment generates one prescription.
- * A prescription includes many medicines.
- * A Doctor belongs to one department.

Step 5: Draw ER diagram using draw.io

- * Choose blank diagram \rightarrow click create
- * Use rectangles for Entities (Patient, Doctor)
- * Use ellipses for Attributes
- * Use diamonds for relationships
- * Connect using lines
- * Use labels such as (1:n), one:one etc. to show coordinates

Example relationships:

- * patient (1) - books \rightarrow (M) Appointments
- * Doctor (1) - conducts \rightarrow (M) Appointments
- * Appointment (1) \rightarrow generates ≥ 1 Prescription

Input for the ER design
Real time Healthcare system Scenarios
Database Design Rules (Entity, Attributes, Relationship identification).

Output:

Entity Relationship Diagram (ERD) that clearly shows:

All unidentified entities with attributes.

Foreign keys and keys marked appropriately.

→ ~~similar~~
→ ~~repeated~~

foreign

key

key

foreign

key

foreign

key

identical

non-foreign

→ notes

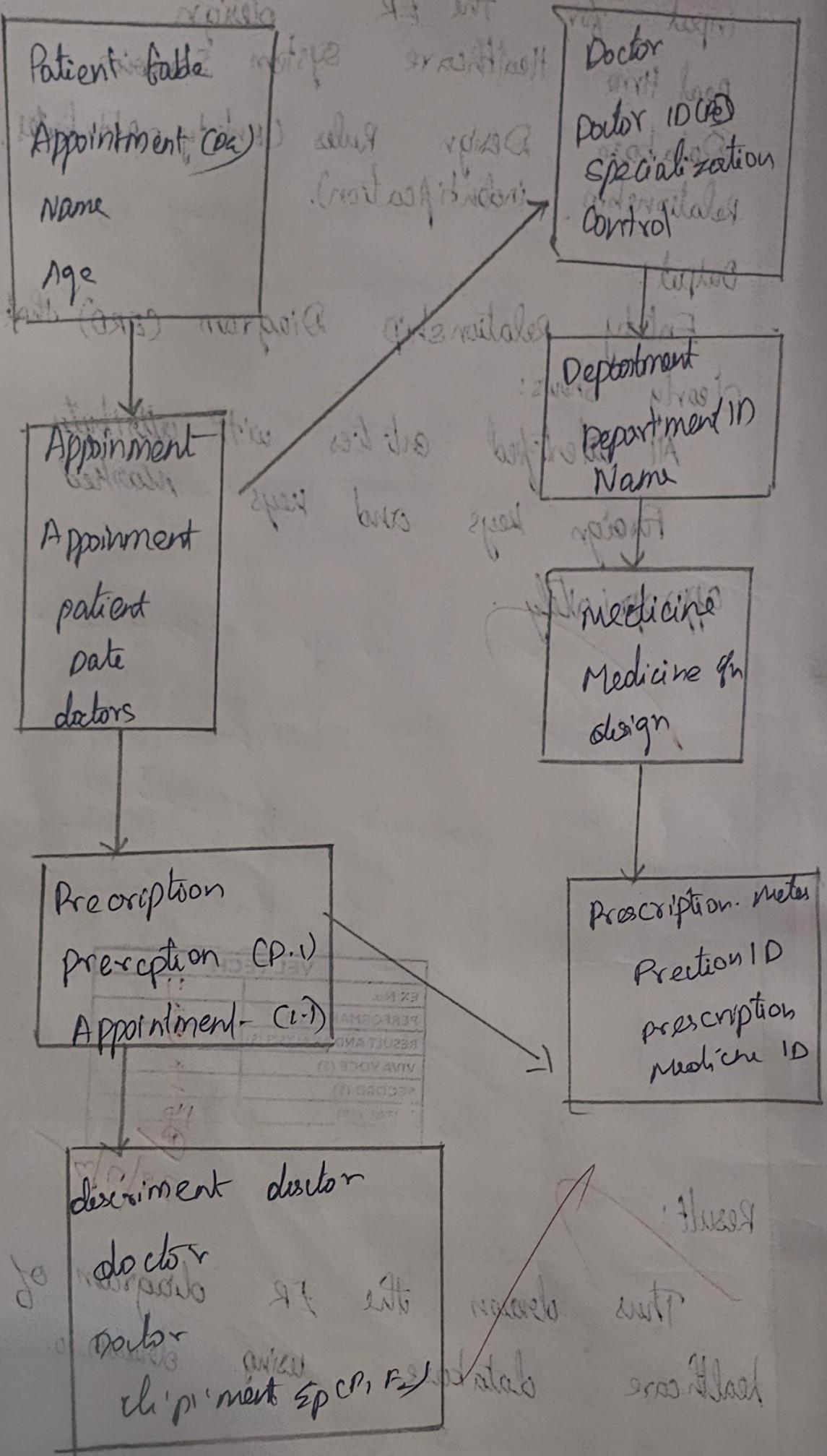
→ foreign

→ identical

VELTECH	
EX No.	11
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	4
RECORD (5)	5
DATE : 10/11/14	14

Result:

Thus drawn the ER diagram of health care database using drawio.



28/1/25 1.2 Convert ER diagram into relational

Aim:
To convert ER model diagram into relational model.

Steps for converting the ER diagram
into 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 at the primary key.
- * Using these rules, you can convert the ER diagram into tables and given ER diagram is as follows:

Result:

The relational Model for the given ER model was successfully converted.

VELTECH	
EX No.	21
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (25)	14
SIGN WITH DATE	

20/1/25