



Date: 29/7/25

## Task 1

### Conceptual Design Using ER MODEL

Aim: to design a ER Model for Sports management Database.

#### Tools Required:

Use any of the following ER diagram tools:

- <https://draw.io>
- <https://erplus.com>
- Creately

#### Steps Involved

Step 1: Analyse the real word application:

Sports Event Management System

understood the domain

- Teams
- Coaches
- Players
- Matches
- Scores

Step 2: Identify Major Entities.

The major entities identified in the ER diagram are:

- Teams
- Coaches
- Players
- Matches
- Score

### Input

- Real-time Scenario.
- User Requirements
- Database Design Rules

### Output

- The entity Relationship Diagram (ERD)
- All major entities with attributes.
- All major relationship correct cardinality.
- Keys (PK, FK) properly marked.
- Clear layout with logical grouping.

### Step 3: Identify Attributes for each

<u>Entity</u>	<u>Attribute</u>
→ Teams	Team-ID (PK), Team-Name, Team-Ground, Coach-Name.
→ Coach	Coach-ID (PK) Coach-Name Coach-Age Team-ID
→ Players	Ply-ID (PK), Ply-Name Position, Team-ID (FK)
→ Matches	Match-ID (PK), Date Home-Team-ID, (FK) Away-Team-ID (FK)

### Step 4:

- A team has many players.
- A team has many coaches.
- A team participates in many Matches.
- A coach belongs to one team.
- A player belongs to one team.

- A team has one score record.
- A match has been played b/w two teams.

### Steps

### ER Diagram

- Use rectangles for Entities.
- Use ellipse for Attributes.
- Use diamonds for Relationship.
- connect entities using solid lines.
- Indicate
  - (1:M), (M:N) cardinalities
  - Primary keys
  - Foreign keys.
  - Composite & derived attributes.
- Use double ellipse for multivalued attributes if needed.

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

### Result:

The task model of Sports Event Management System helped us Conceptually to design in database using draw.io. We were able to visually model a real time of relation schema.





Date: 5/8/25

Task 12

## Conversion of ER Diagram

Aim: to convert ER Diagram to a Relational Model.

### Algorithm:

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

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

Result:

thus the concept to convert the ER Diagram to a Relational Model completed has been implemented.