

Task 1: Conceptual design through FSR

Aim: using basic database design methodology and ER modeler, design entity Relationship diagram by satisfying the following sub tasks:

1-a Identifying the entities

1-b Identifying the attributes

1-c Identification of relationships, cardinality, type of relationship

1-d Reframing the relation with keys and constraint

We are using create & develop ER/ER diagram

1-a Identifying the entities

1-a-1 cricket board (Board ID, Name, Address, Contact - no)

1-a-2 team

1-a-3 player

1-a-4 match (match ID, date, time, Result)

1-a-5 ground (Ground ID, name, location, address, contact - no)

1-a-6 umpire (Umpire ID, Name, Address, Contact - no)

1-b Identifying the attributes

1-b-1 cricket board (Board ID, Name, address, Contact - no)

1-b-2 Team (Team ID, Name, Coach, Captain)

1-b-3 player (Player ID, Name, Date of Birth, Playing Role, Email, Contact No)

1-b-4 match (Match ID, Date, Time, Result)

1-b-5 ground (Ground ID, Name, Location, Capacity)

1-b-6 umpire (Umpire ID, Name, Address, Contact - no)

1-c Identification of relationships, cardinality, type of relationship

1.c.1 board - team Relationship : the board will have a one - to many relationship with teams since the board can have multiple teams affiliated with it, but a team can only be associated with one board

1.c.2 team - player Relationship : Teams and players will have a many - to - many relationship since a team can have multiple players and a player can be a part of multiple teams over time

1.c.3 match - team Relationship : matches will have a many - to - many relationship with teams can participate in multiple matches.

1.c.4 match ground Relationship : matches will have a one - to - one relationship with grounds, as each match takes place in one specific ground

1.d Reframing the relations (with keys and constraint)

1.d.1 create table cricket\_board  
SQL > create table cricket\_board (Board ID address varchar(50), contact - No number);  
(Table created successfully)

column	NULL	TYPE
Board ID	NOT NULL	VARCHAR(10)
Name	-	VARCHAR(20)
Address	-	VARCHAR(50)
contact - No	-	NUMBER

1.d.2 create table team:

SQL > create table team (team ID varchar  
col primary key, Board ID varchar (10), name  
varchar (30) coach varchar (30), captain varchar  
(30), foreign key (board ID)

Table created.

SQL > DESC TEAM

Name SIGN NULL

TEAM ID INT NOT NULL

BOARD ID

NOT NULL AND type int

Name

String type

coach

String type

captain

String

Redis 3 create table

NULL TDA

(SQL & LAMP) DESC PLAYER

NULL TDA

Name SIGN

NULL ?

player ID INT NOT NULL

team ID INT NOT NULL

Player

String type

name

String type

Age

String

NUMBER (5,2)

Date of Birth

(SQL & LAMP)

play game

(SQL & LAMP)

Email (SQL & LAMP)

Telephone

Contact No

STAC

(Redis) create table match

(SQL & LAMP) create table match

match ID, team ID, team ID

varchar (2) + team ID

int

int

NAME	NOT NULL	CHAR(50)
MATCHID	NOT NULL	VARCHAR(20)
TEAMID1	NOT NULL	VARCHAR(20)
TEAMID2	NOT NULL	VARCHAR(20)
PLAYERID	NOT NULL	VARCHAR(20)
MATCH-DATE	NOT NULL	DATE
TIME	NOT NULL	VARCHAR(20)
RESULT	NOT NULL	VARCHAR(20)
(1.d. 5) create table ground: rota		
(o2) > create table ground		
(o2) > table created:		
NAME	NULL?	CHAR(50)
GROUND ID	NOT NULL	VARCHAR(20)
MATCH ID	NOT NULL	VARCHAR(20)
LOCATION	NOT NULL	VARCHAR(20)
CAPACITY	NOT NULL	NUMBER
(1.d. 6) create table umpire		
(o2) > create table umpire		
(o2) > UMPIRE		
NAME	NULL ?	CHAR(50)
UMPIRE	NOT NULL	VARCHAR(20)
F NAME	NOT NULL	VARCHAR(20)
M NAME	NOT NULL	VARCHAR(20)
AGE	NOT NULL	NUMBER(5,2)
DATE OF BIRTH	NOT NULL	DATE
COUNTRY	NOT NULL	VARCHAR(20)
EMAIL	NOT NULL	VARCHAR(20)
CONTACT NO	NOT NULL	NUMBER

1.d.6 create table umpire - umptied

sa > create table umpire -

table created

sa l > DESC UMPIRE

NAME

NULL ?

TYPE

UMPIRED

NOT NULL

VARCHAR 2(10)

GROUP ID

NOT NULL

VARCHAR 2(10)

MATCH ID

NOT NULL

VARCHAR 2(10)

VALUES

1000

1000

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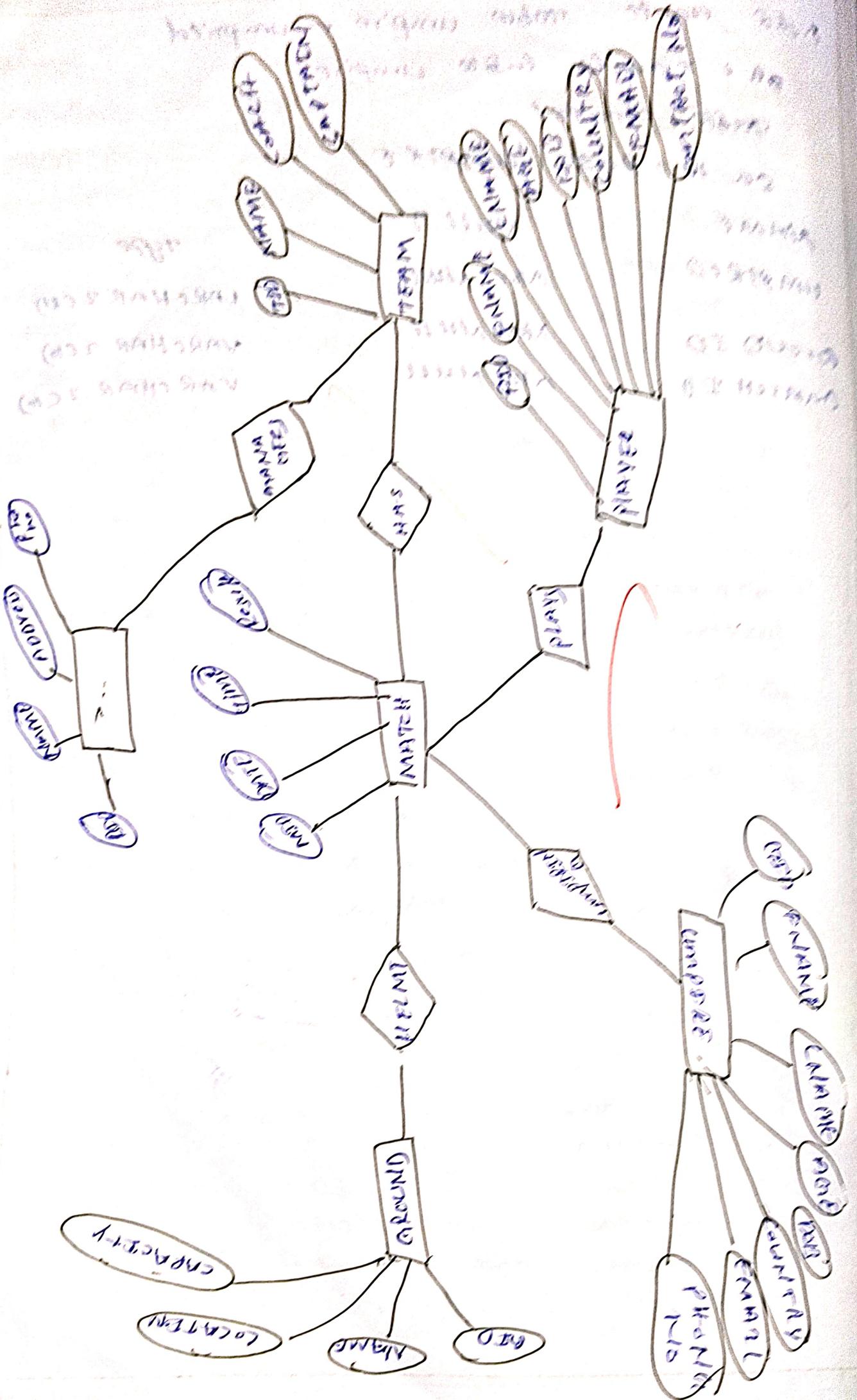
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EX NO	
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
MINA VOCE (5)	—
RECORD (5)	5
TOTAL (20)	15
ALIGN WITH DATE	

Result: thus the database design methodology and ER model design diagram has been completed successfully.