Task-2: Generating design of traditional database model

Aim:
creating hierarchical/network model of the database by enchancing the sound abstract data by Performing following tasks using forms of inheritance:
a. Identify the specificity of atribute and Perform check constrant to applicable.
Specialization
c. Find the domain of atribute and Perform check constraint to applicable
d. Rename the relations.
e. Perform SQL Relations using DDL, CCL commands.

a. Identify the specificity of each relationship, find and form surplus relations.
Entity identification:
- cricket board has multiple teams.
- Team consis of multiple players.
- Match involves multiple teams and is Played on ground.

Specificity analysis:
- Cricket board ↔ Team ↔ One-to-many
- Team ↔ Player ↔ Many-to-Many → Team_Player
- Match ↔ Team → Many-to-many → Match_team
- Match ↔ ground → one-to-one

Surplus Relations (Associative tables):
- Team Player (TeamID, PlayerID)
- Matchground (MatchID, TeamID)

b. check is a hierarchy/has-a hierachy and Performs generalisation and/or Specialisation relationship.

Generalisation

In the ER diagram for tamil nadu cricket board

Entities

Player

umpire

Attributes

The above entities have common attributes like first Name, last_Name, Date_of_birth.

age, contact_No, and Email.

Potential generalisation:

create a superclass called "Person" to represent the common attributes shared by Player and umpire. The "Person" entity would have the following attributes:

Person_ID

First_Name

Last_Name

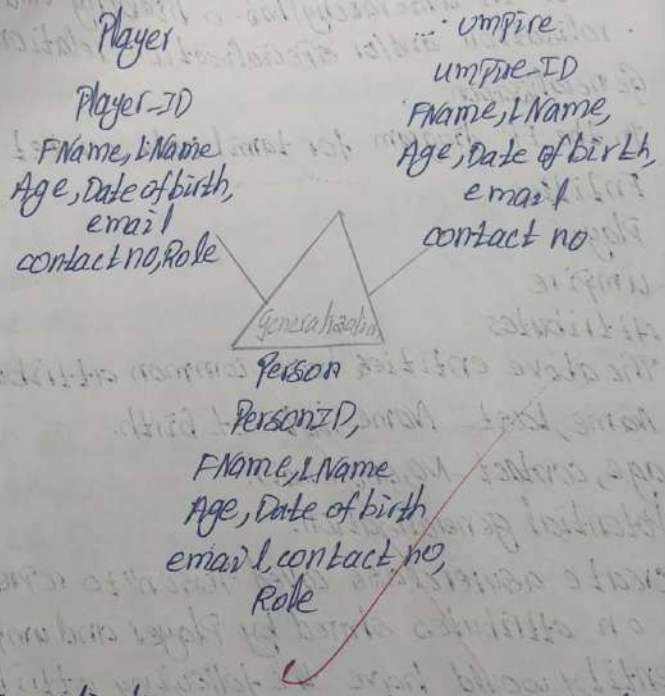
Date of birth

Age

contact_Number

Email

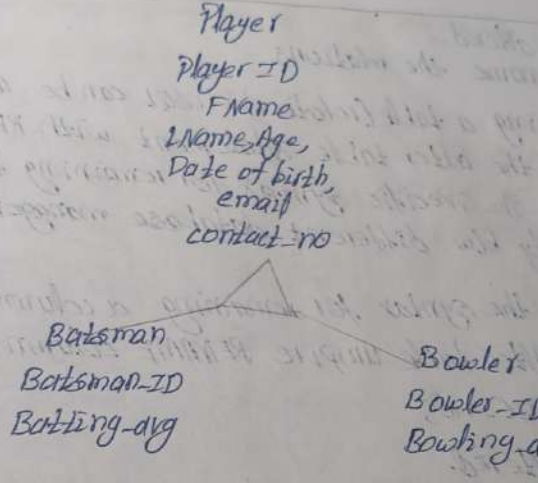
Player: Inherited attributes from "Person" and add specific attributes like Player_ID



By using generalization, we can reduce data redudancy, improve data integrity, and simplify the structure of ER diagram.

Specialization

In the context of entity-Relationship(ER) diagrams, specialization refers to the process of defining sub-types within an entity type. It allows, to represt entities that parent entity.



3.c Find the domain of attribute and Perform check constraint to applicable.

Attribute	Domain	check constraint ex
Age	integer	check (Age>=18)
contact_NO	varchar(10-15)	check (length(contact no) b/w 10 and 15)
Email	VARCHAR	check(email like '%@%.%')
capacity	integer	check (Playing role in batsman bowler A

SQL> Alter table Player add constraint check_con ch
(age>=18);

Table altered.

3d Rename the relations

Renaming a table (relation) in SQL can be accomplished using the alter table statement with RENAME to caluse. The specific syntax for remaining tables varies slightly blw different database management system

Here's the syntax for remaining a column in table:

SQL > Alter table umpire RENAME column contact_no to phone_no;

Table altered.

SQL > DESC umpire

Name	
Umpired	VARCHAR(30)
FName	VARCHAR(30)
LName	VARCHAR2(30)
Age	NUMBER(5,2)
Date of birth	DATE
country	VARCHAR2(30)
Email	VARCHAR2(40)
Phone_NO	NUMBER

e. Perform SQL Relations using DDL, DCL commands.

l stands for 'Data control language' which is subset of SQL (Structured Query language)

used to control. There are two primary DCL commands.
1. Grant 2. Revoke

Grant

The Grant command is used to Provide specific privileges to users or roles, allowing them to perform certain action, select, insert, update, delete, excute more.

```
SQL>create user Raj identified by kumar.
User created.
SQL>grant resource to raj;
Grant succeeded
SQL>grant create session to raj;
Grant succeeded
SQL>conn
Enter user-name:raj
Enter: Password:
connected
SQL>create table emp(eno,number,ename varchar(10));
Table created
SQL>conn system/manager
connected
SQL>grant all on impire to Raj;
grant succeded.
```

Result:

Thus the hierarchical model and network model has been successfully created.

VEL TECH - CSE	
X NO.	2
RFORMANCE (5)	5
SULT AND ANALYSIS (5)	5
VA VOCE (5)	5
ORD (5)	5
AL (20)	19
IGN WITH DATE	9