Task 27 Generating Design of other traditional database model

4-8-25

Aim

Creating hierarchial/Network model of the database by enhancing the sound abstract data by perfaming following tasks using forms of inhritence

a. Identify the specific of each relationship find and form eerplos relations

b. checking is a hierarchy / has a hierarch and perform generalization and/or specialization relationship

c. find the Doman of the at attribute and perform check constraint to the applicable

d. Remore the relations

e. perform sql relations using PDL, DDL connecting

Idntify the specifing of each relationship, find & form surplus relationsi

Entity identification

- Cricket board has multiple teams
- team consists of multiple players
- team involve multiple teams and played on the ground
- empire supervises the match

specifity 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 (Team ID, player ID)

b) check is a hierarchy /has - a hierarchy & perform relationships

Generalization

In the ER diagram for the Tamil Nadu Cricket board (TNCR) discribed earlier, we can identify potential generalization based on common attributes or relationships among based here's as possible generalization

Entity

Player

Empire

Attributes

The above entities have common attributes like first_Name, last_name, date_of_birth, age, contact_No, and emno...

Potential Generalization

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 (primary key)

First_name

last_name

Date_of_birth

Age

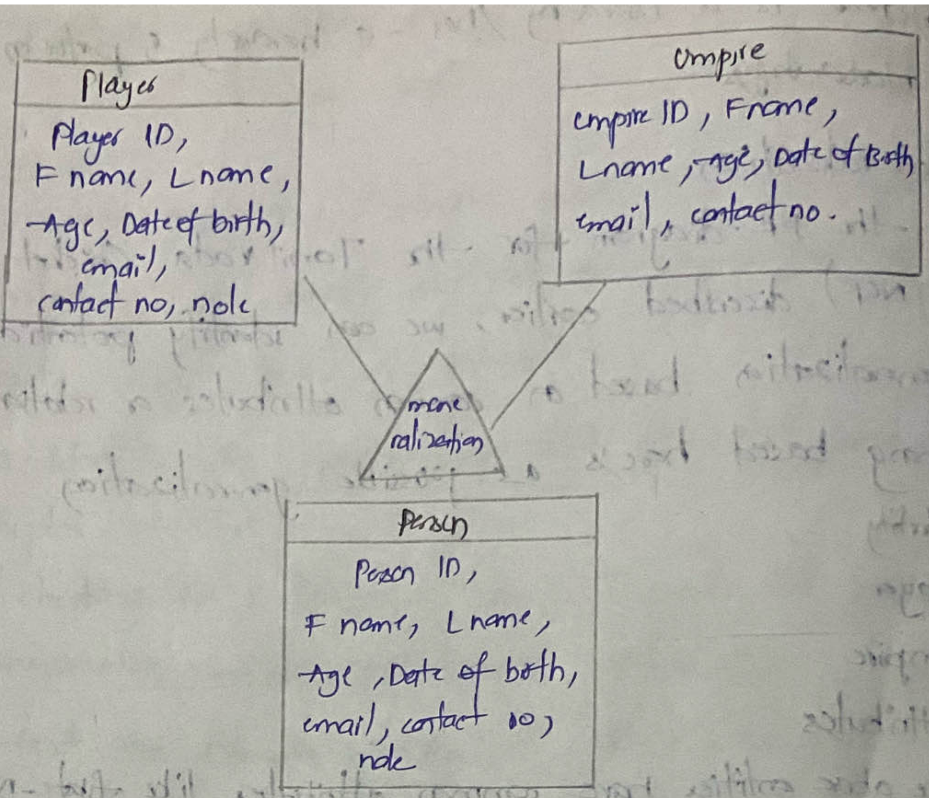
contact_number

email

subclasses

Player: Inherited attributes from "person" & add specific attributes like player_ID

umpire: Inherited attributes from "person", add specific attributes like umpire ID

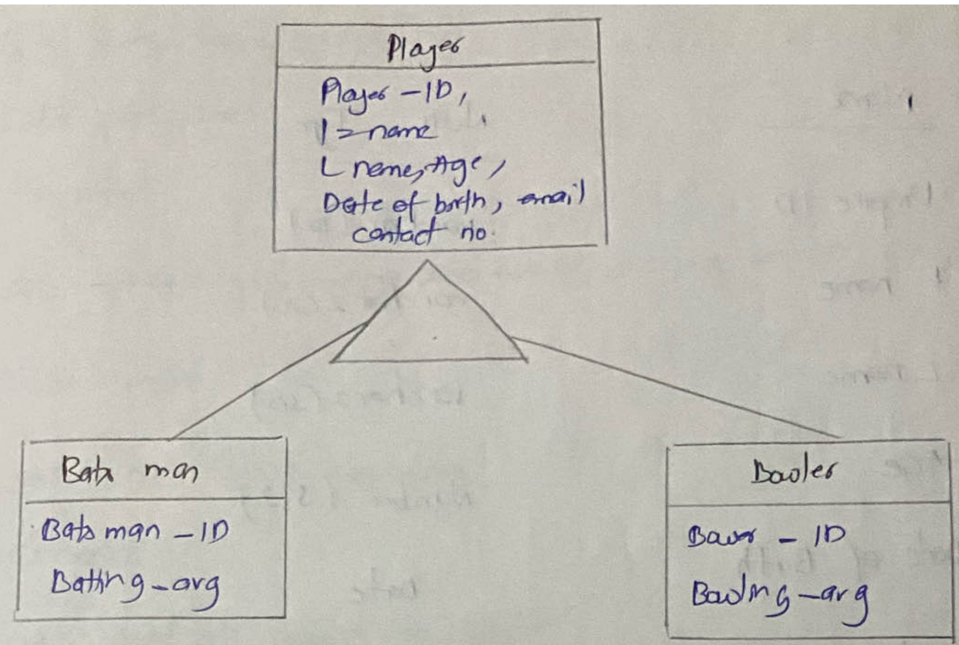


specialization:-

In the context of entity Relationship (ER) diagram, specialization refers to the process of defining sub type with in an entity type

In the case of Tamil Nadu cricket board Assosiath lets consider the specialization of the "player" entity in the two sub-types : Batman & Bowler

Here is the modified ER diagram with the specialization.



2·C Find th domain of the attribute & perform check constraint to the applicable.

| Attribute | Domain | check constrain example |
|---|---|---|
| Age | Integer | check (age>=18) |
| contact no | varchar (10-15) | check (length (contact_No b/w, 10, 15) |
| email | varchar | check (emaile like '%.a%') |
| capacity | Integer | check (capacity >0) |
| playingrole | varchar | check (playing role IN (batsman, & wicket keeper) |

SPL > AFTER table Add costraints check_con

check (age>=18)

Table altered.

| Name | Null : Type. |
|---|---|
| Umpire ID | varchar (10) |
| F name | varchar 2(30) |
| L name | varchar2(30) |
| Age | Number (5.2) |
| Date of Birth | Date |
| Cantry | verchar (30) |
| Email | varchar2(40) |
| phone no | number. |

Grant:

It is used to provide specific privilages to users allowing them to perform certain action on data base objects

```
SQL > create user Raj identified by kmar
User created
SQL > grant resource to raj;
Grant succeded
SQL >grant create session to raj;
Grant successed
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 umpire to raj
Grant succeded
```

| VEL TECH - CSE | |
|---|---|
| EX NO | 2 |
| PERFORMANCE (5) | 5 |
| RESULT AND ANALYSIS (5) | 5 |
| VIVA VOCE (5) | 0 |
| RECORD (5) | 5 |
| | 15 |
| | |

Result : Thus, the hierarchial model & network model has been sucessfuly created.