A picture containing text, wheel

Description automatically generated  
  
  
  
  
**Introduction to Database Project for Fall 2022-23 submitted to MR. MD. SAJID BIN FAISAL** **Title as** **“Cricket Team Management”  
Section:T  
Group:1**

|  |  |
| --- | --- |
| **NAME** | **ID** |
| **NIDAN ALAM** | **22-47046-1** |

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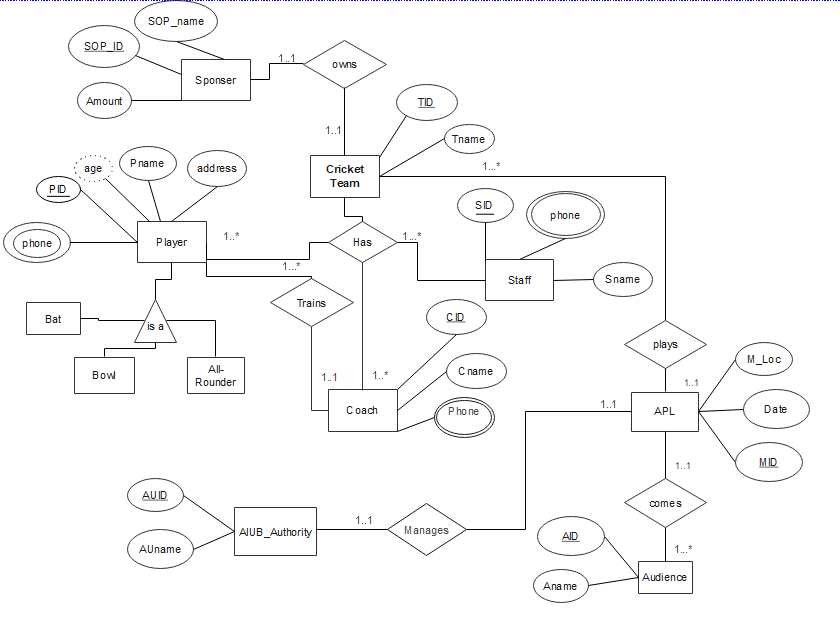
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**Scenario:**A Computer science cricket team management system has three departments. Players , coaches and Staffs. Players , coaches and staff are Identified by their ID. Players has attribute PID, Pname ,phone ,age and address. Coaches has attribute of CID , Cname , phone and Staff has attributes like SID , Sname ,phone .In a Cricket team there are many players and at least one coach and at least one staff. Players are specified as Batsman, Bowler and All-Rounder. At least one player is trained by each coach. A CS cricket team can have maximum one sponsor for their team. Sponsors have their Unique ID , name and amount. At least a Cricket team plays in APL .APL is Identified by Match ID and has Attribute of M\_loc and date. Many Audience comes to watch APL. Audience have their own unique ID and also have name. APL is managed by AIUB Authority. They have a unique ID, name.

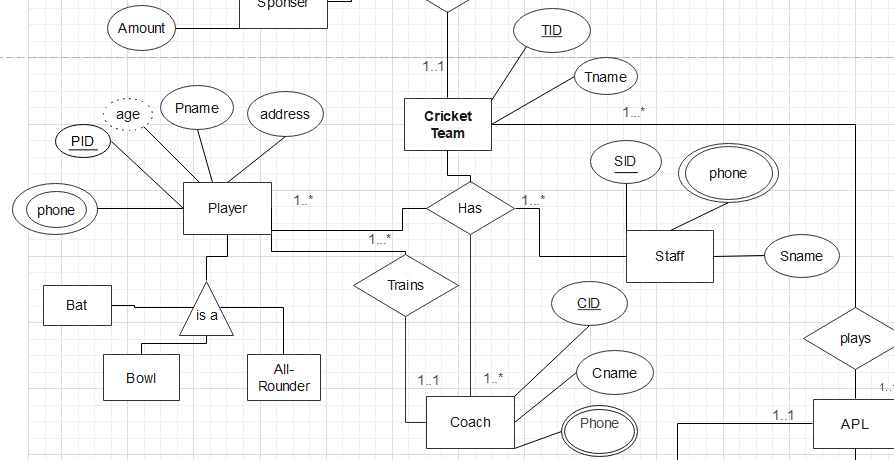
Page 3

**ER – Diagram :**

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Page 4

**Normalization :**



Has Relation:  
 **UNF:**TID , Tname , PID ,Pname , age , phone , address , CID , Cname , phone , SID , Sname , Phone  
  
**1NF:**

i)TID , Tname , PID ,Pname , age , phone , address , CID , Cname , phone , SID , Sname , Phone  
  
**2NF :**

i)TID , Tname

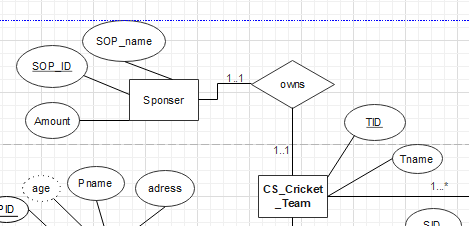
ii) PID ,Pname , age , phone , address , TID(FK)

iii)CID , Cname , phone , TID(FK)

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iv) SID , Sname , Phone , TID(FK)

**3NF** will be same as **2NF**

****

OWNS RELATION: **UNF:**

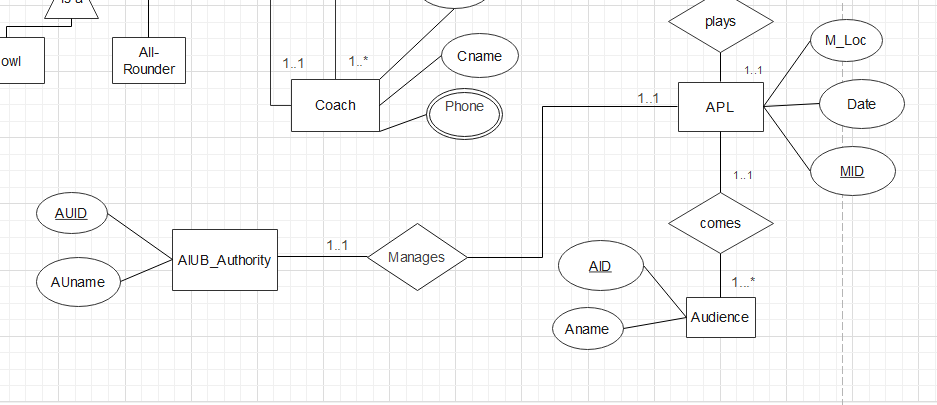
TID , Tname , SOP\_ID , SOP\_name , Amount   
  
**1NF:**   
i) TID , Tname , SOP\_ID , SOP\_name , Amount

**2NF:**i) TID , Tname

ii) SOP\_ID , SOP\_name , Amount  
iii) TID , SOP\_ID(FK)

**3NF** will be same as **2NF**

Page 6

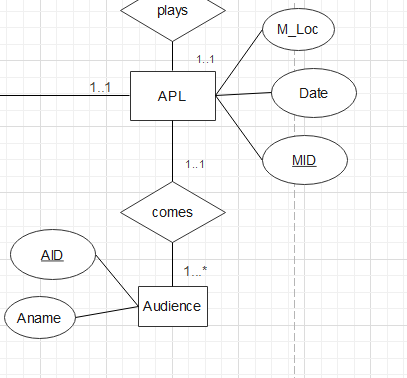
MANAGES RELATION : **UNF:**

MID , M\_Loc ,Date, AUID , AUname   
  
**1NF:**   
i) MID , M\_Loc ,Date, AUID , AUname   
**2NF:**i) MID , M\_Loc , Date

ii) AUID , AUname   
iii) MID , AUID(FK)

**3NF** will be same as **2NF**

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COMES RELATION:

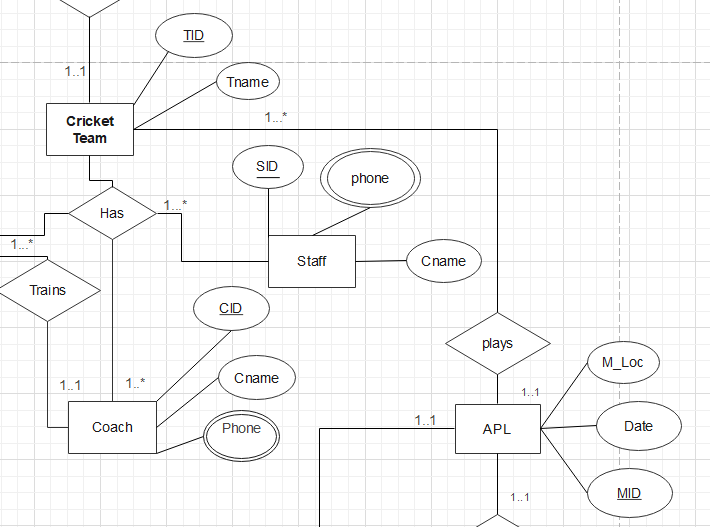
**UNF:**

MID , M\_Loc ,Date, AID , Aname   
  
**1NF:**   
i) MID , M\_Loc ,Date, AID , Aname   
**2NF:**i) MID , M\_Loc , Date

ii) AID , AUname , MID (FK)

**3NF** will be same as **2NF**

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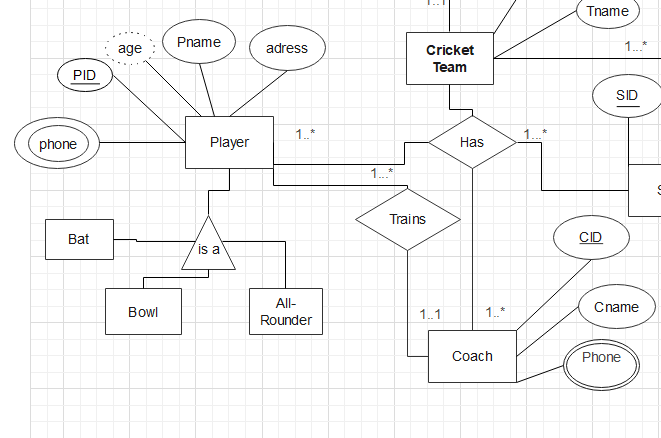
PLAYS RELATION : **UNF:**

MID , M\_Loc ,Date, TID , Tname   
  
**1NF:**   
i) MID , M\_Loc ,Date, TID , Tname   
**2NF:**i) MID , M\_Loc , Date

ii) TID , Tname , MID (FK)

**3NF** will be same as **2NF**

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****

Trains Relation:

**UNF:** PID ,Pname , age , phone , address , CID , Cname , phone  
  
**1NF:**

i) PID ,Pname, age , phone , address , CID , Cname , phone  
  
**2NF :**

i) PID ,Pname , age , phone , address , CID(FK)

ii)CID , Cname , phone

**3NF** will be same as **2NF**

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**Finalization :**

i)TID , Tname

ii) PID ,Pname , age , phone , address , TID(FK)

iii)CID , Cname , phone , TID(FK)

iv) SID , Sname , Phone , TID(FK)

v) SOP\_ID , SOP\_name , Amount  
vi) TID , SOP\_ID(FK)  
vii) MID , M\_Loc , Date

viii) AUID , AUname

ix) MID , AUID(FK)

x) TID , Tname , MID (FK)  
xi) PID ,Pname , age , phone , address , CID(FK)

xii)CID , Cname , phone

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**Table creation :**i)TID , Tname   
  
  
ii) PID ,Pname , age , phone , address , TID(FK)

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Graphical user interface, table

Description automatically generated

iii)CID , Cname , phone , TID(FK)



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iv) SID , Sname , Phone , TID(FK)

Graphical user interface, application, Word

Description automatically generated

v) SOP\_ID , SOP\_name , AmountGraphical user interface, text, application

Description automatically generated

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vi) TID (FK), SOP\_ID  


vii) MID , M\_Loc , DateGraphical user interface, text, application

Description automatically generated

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viii) AUID , AUname



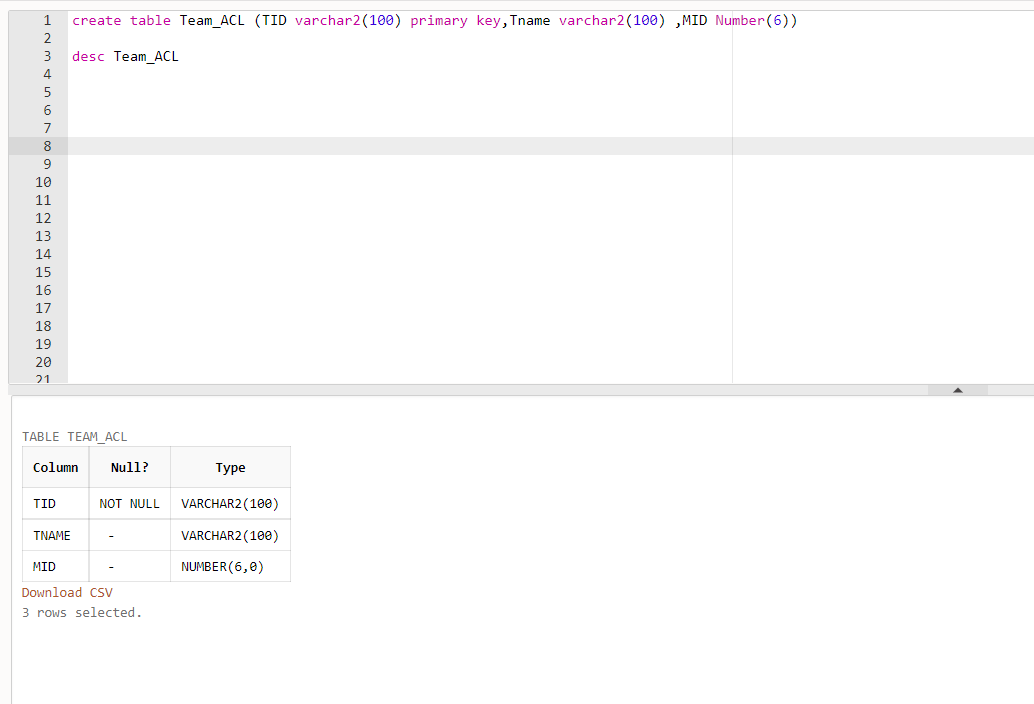
ix) MID , AUID(FK)

Graphical user interface, text, application, email

Description automatically generated

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x) TID , Tname , MID (FK)



xi) PID ,Pname , age , phone , address , CID(FK)



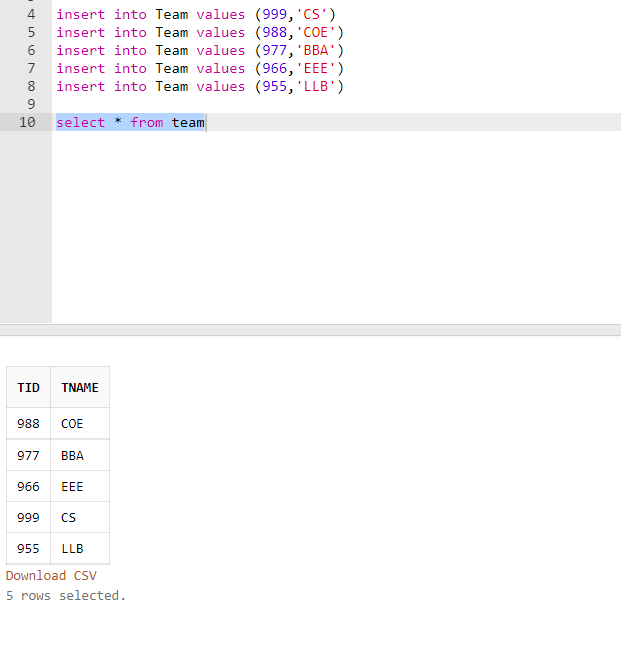
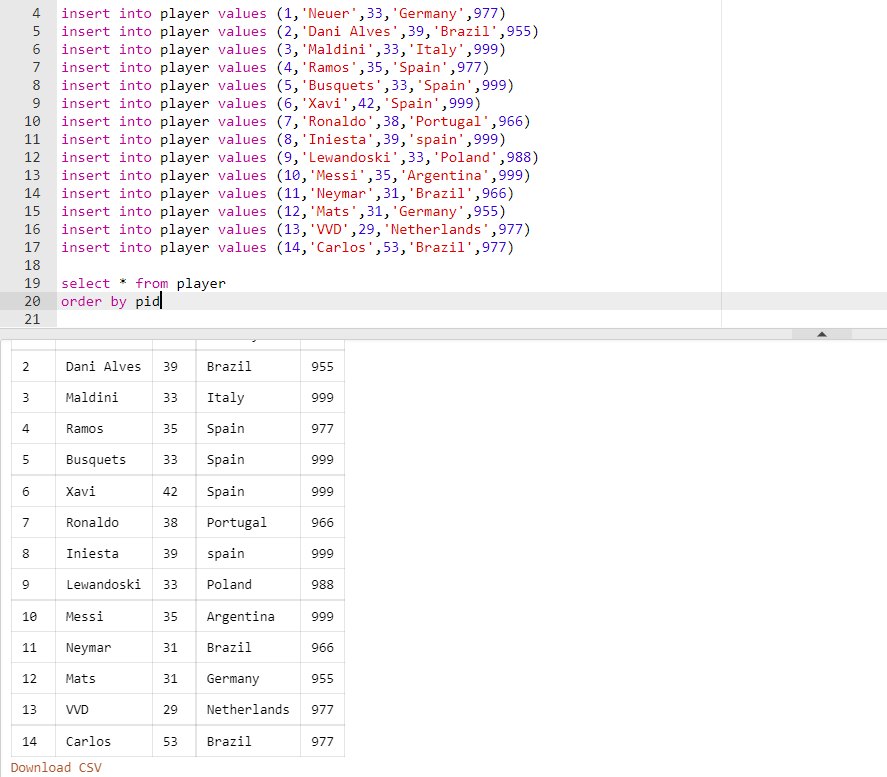
Page 17

xii)CID , Cname , phone

Graphical user interface, application, Word

Description automatically generated

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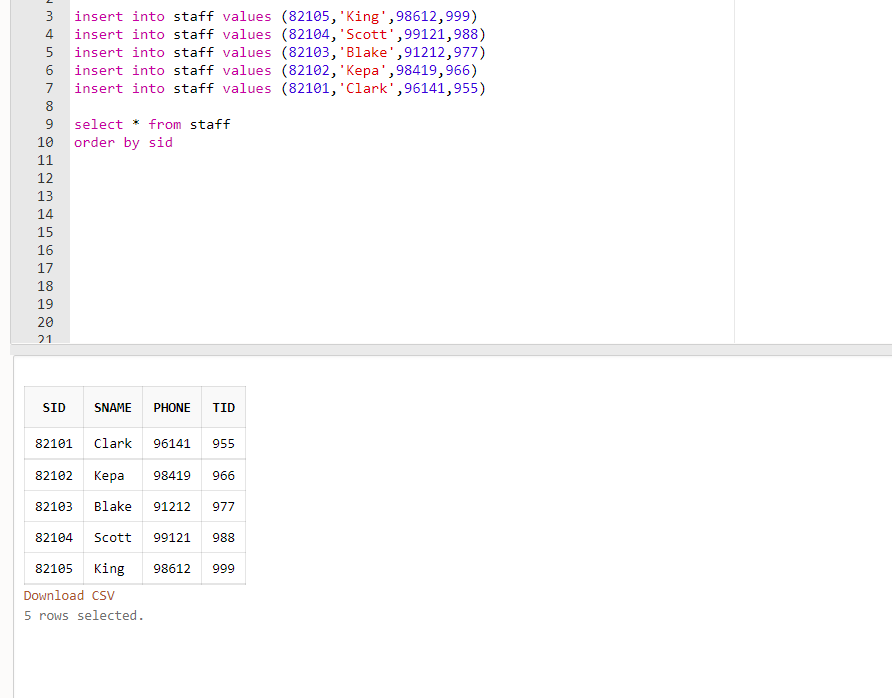
**Value Insertion :   
  
Team :  
  
  
Player:  
  
  
  
Coach :   
Table

Description automatically generated with low confidence  
  
  
Staff :**

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Page 21

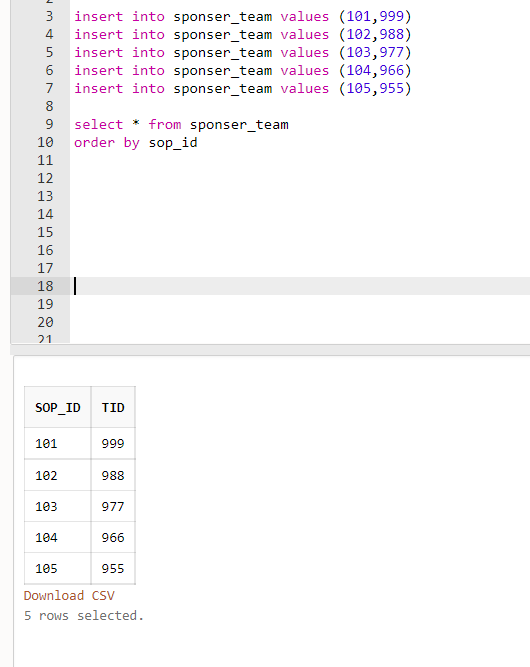
**  
  
SP0NSER:**

Page 22

**Text

Description automatically generated with medium confidence  
  
Sponsor\_Team:**

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****

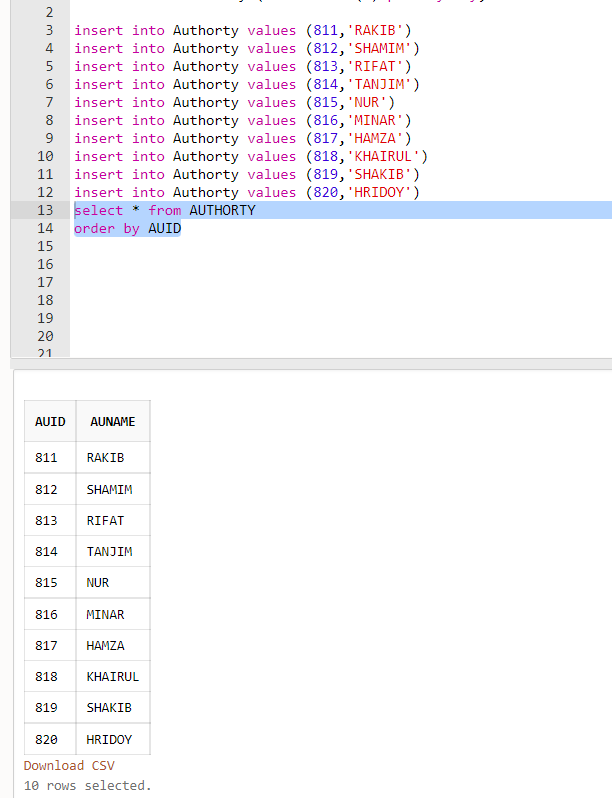
**ACL :**

Page 24

**Text, table

Description automatically generated with medium confidence**

Page 25

**Authority :  
**

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**Authorty\_ACL :  
Graphical user interface, text, application

Description automatically generated**

**Team\_ACL :**

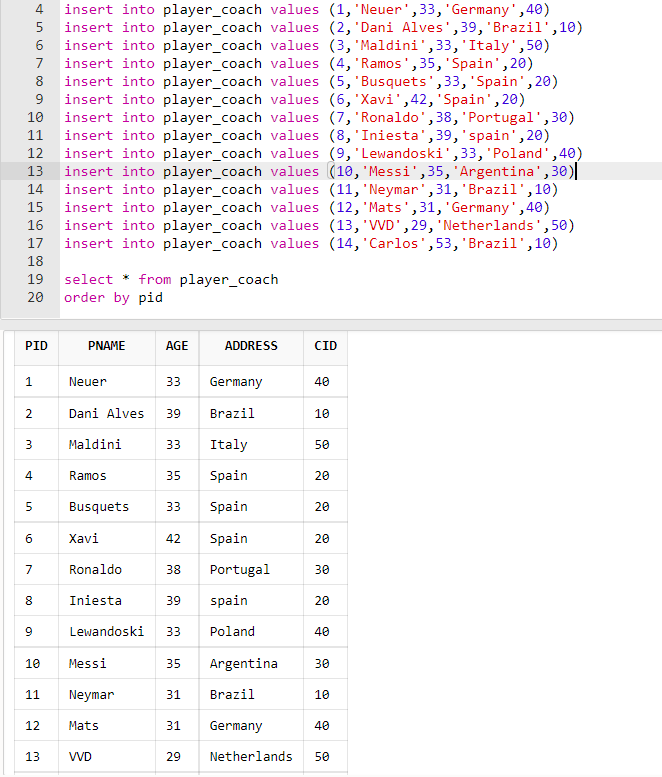
Page 27

**Text

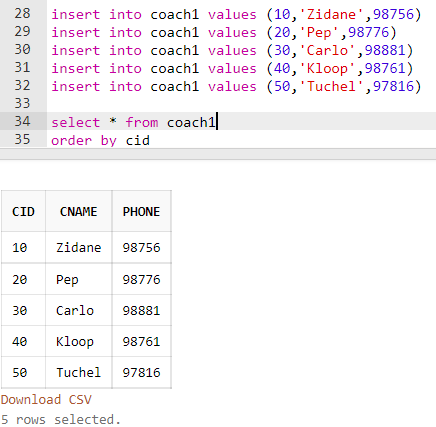
Description automatically generated with medium confidence**

**Player\_Coach:**

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**  
  
coach\_team :**

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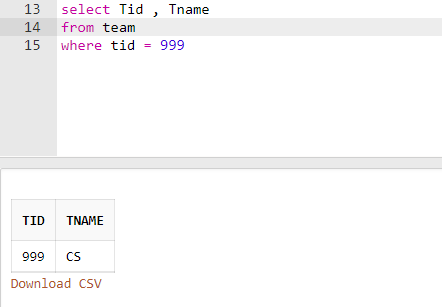
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**QUERY TEST :**

**Single-Row Query:**

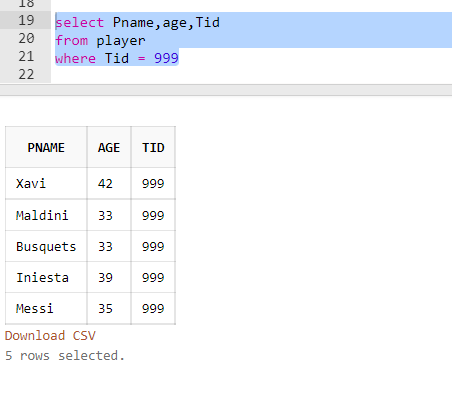
1. **Show Team ID and Team Name of Team Table of ID No 999 .**

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**Multiple-Row Query:**

**1. Show players Name, Age and ID from player Table who are playing for Team ID 999.**

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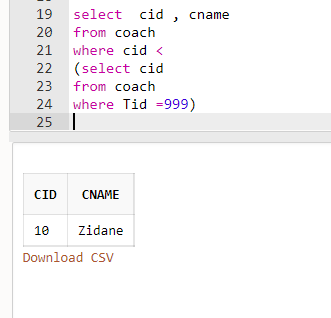
****

**Aggregate Query:**

**Sub-query:**

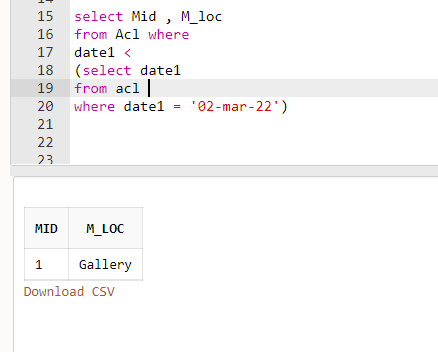
**\*Single Row :**

**1. Show name and id from coach table of coaches having less id no of team id no 999.**

****

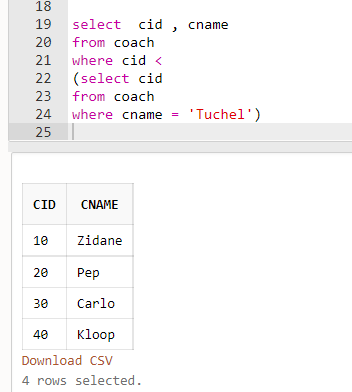
Page 32

**2. Show Match Id and location before ‘2-mar-22’ from ACL table**

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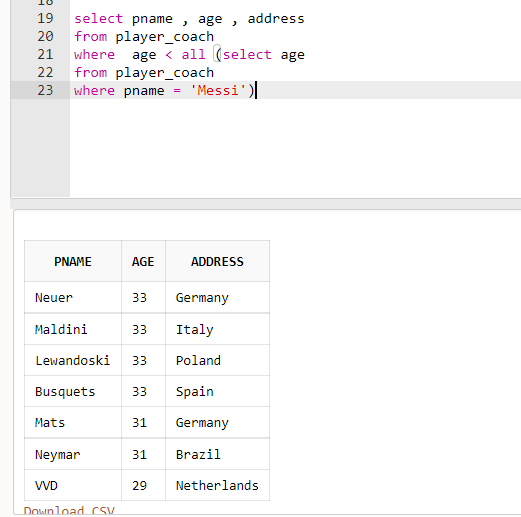
**\*Multiple Row :**

**1. Show Id and Name from coach table of all having less ID no than ‘Tuchel’**

****

**2. Show name ,age and address of all players younger than Messi from player\_coach table**

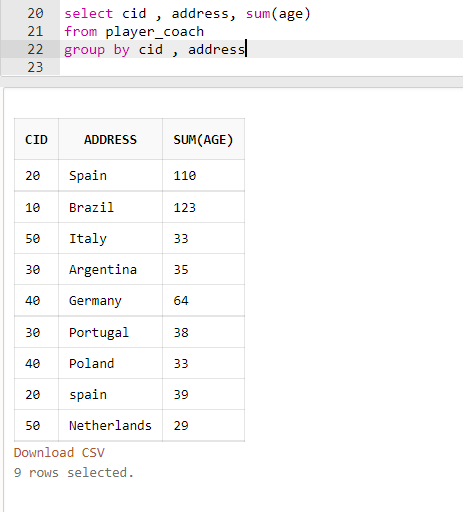
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**Aggregation :**

**1. Show the cid , address and the sum of age from player\_coach table group by address and cid**

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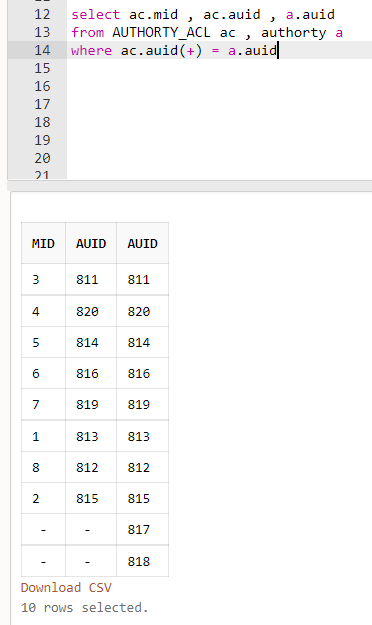
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**JOINING :**

**Outer\_Join :**

**1. Show Authority ID no. who didn’t participated in ACL from Authority\_ACL and Authority table**

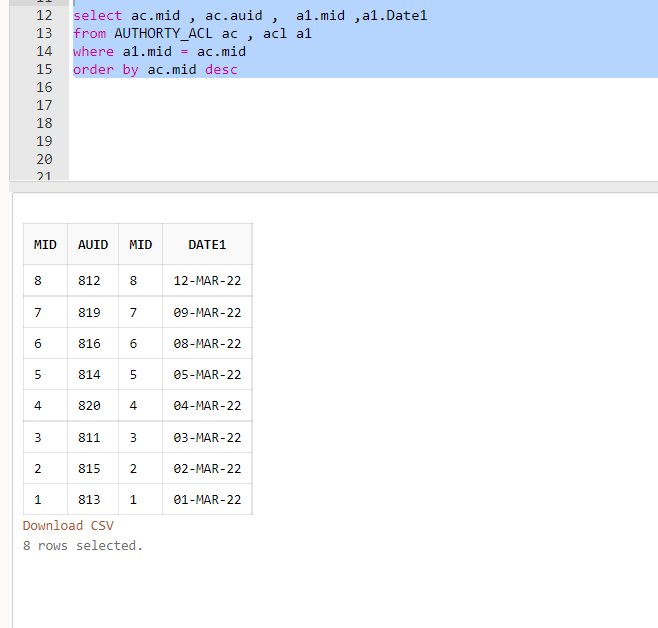
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**EqiuJoin :**

**1. Show date , auid and mid in descending order from acl and Authority\_ACl table**

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**View Create :**

**1. create a view for Coach 2 who can only view Coach ID , Team ID and Coach Name from Coach table**

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Graphical user interface, application

Description automatically generated

**Conclusion:**

**“Cricket Management” Schema can be used in Sporting Database System. It can help to store data of Coach, Player, Tournament, Staff, Sponsor and Authority. Using this schema user can store the data. I learnt creating schema for a Database System.**

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