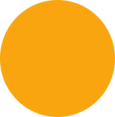
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**SECTION: K**



**GROUP 6**

2022

DATABASE

PROJECT

PROJECT

Cricket Team Management System

**Supervised By:**

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**SIFAT RAHMAN AHONA**  
***Assistant Professor, AIUB***

**Group members:**

A person wearing a suit and tie

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**Name: RAFIUL HASAN SHAFIN ID:22-46663-1**

**Name: MAHEDI HASAN ID:22-46259-1**

A person wearing a suit and tie

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**Name: TANJID AHMED TOMAL ID:22-46153-1**

A person wearing a suit and tie

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A person wearing a suit and tie

Description automatically generated with medium confidence

**Name: NUSRAT JAHAN AL-AKSA ID:22-46253-1**

**CASE STUDY**

**Cricket Team Management System**

The Bangladesh Premier League (BPL) is a professional Twenty 20

cricket league in Bangladesh cricket history. The BPL is one of the three professional cricket leagues in Bangladesh. It is the 16th most attended premier league in the world. The league of BPL manages this vast organization with a database. The database usually contains many

tournament T20, Test, ODI. Every match of the tournament has many

coaches by the team by team. The coaches have phone no, agreement. Coach id, role, name. It has played many leagues contains all league moderate, team match, contact, league name, league format, league team. Every league has a board office like board name, contract no, joining, job. The board appointed a manager for the league. Manager has a manager id, name, phone, salary, address. The board office selected stadium. The stadium has stadium id, capacity, place, country, name. The broad of the league appointed umpire. The umpire has umpire id, country, date of birth, age, name. The board the umpire discussing and fixed many matches like match id, date, result, toss. The board also appointed a doctor. The doctor observes the player and record player’s condition. The doctor has doctor id, name, appoint, add, phone. The league participle many players like player name, capital no, name, skill, date of birth, age, role. The players management has many selectors. The selectors selected player. The selectors have sectors id, phone, name. Every league has on or more ticket counter which is managed by the manager. Ticket counter sells tickets. The database keeps some record of tickets like ticket number, chair, first class, ticket prices.

**Normalization:**

**Appoint** (Bid, Job, Joining, Bname, contactNo, Coid, Cname, crole, Agreement Time, Phone)

1NF: Phone, ContactNo Multivalude attributes

2NF: Bid, Job, Joining, Bname, contactNo, Coid

Coid, Cname, crole, Agreement Time, Phone

3NF: Bid, Bname, contactNo, Coid, J\_ id

J\_ id, Job, Joining

Coid, Cname, crole, Agreement Time, Phone

Table: Bid, Bname, contactNo, Coid, J\_ id

J\_ id, Job, Joining

Coid, Cname, crole, Agreement Time, Phone

**Moderate** (Bid, Job, Joining, Bname, contactNo, Lid, Tteam, Lformate, Lname, T match, Contact)

1NF: ContactNo, Contact Multivalued attributes

2NF: Bid, Job, Joining, Bname, contactNo, Lid

Lid, Tteam, Lformate, Lname, Tmatch, Contact

3NF: Bid, , Bname, contactNo, Lid, J\_id

J\_ id, Job, Joining

Lid, Tteam, Lformate, Lname, T match, Contact

Table: Bid, , Bname, contactNo, Lid, J\_id

J\_ id, Job, Joining

Lid, Tteam, Lformate, Lname, Tmatch, Contact

**Operation** ( Lid, Tteam, Lformate, Lname, Tmatch, Contact, Tid, Odi, test, T20

)

1NF: Contact Multivalued attributes

2NF: Lid, Tteam, Lformate, Lname, Tmatch, Contact

Tid, Odi, test, T20

LTid, Lid, Tid

3NF: Lid, Tteam, Lformate, Lname, Tmatch, Contact

Tid, Odi, test, T20

LTid, Lid, Tid

Table: Lid, Tteam, Lformate, Lname, Tmatch, Contact

Tid, Odi, test, T20

LTid, Lid, Tid

**Guides**( Coid, Cname, crole, Agreement Time, Phone)

, CapNo, Pnamne, Role, Skill, DOB, Age)

1NF: Phone Multivalued attributes

2NF: Coid, Cname, crole, Agreement Time, Phone

CapNo, Pnamne, Role, Skill, DOB, Age

Cid, Coid, CapNo

3NF: Coid, Cname, crole, Agreement Time, Phone

CapNo, Pnamne, Role, Skill, DOB, Age

Cid, Coid, CapNo

Table: Coid, Cname, crole, Agreement Time, Phone

CapNo, Pnamne, Role, Skill, DOB, Age

Cid, Coid, CapNo

**Selection** ( CapNo, Pname, Role, Skill, DOB, Age, SID , Phone, Sname)

1NF: Phone Multivalued attributes

2NF: CapNo, Pname, Role, Skill, DOB, Age

SID , Phone, Sname

CSid, CapNo, SID

3NF: CapNo, Pname, Role, Skill, DOB, Age

SID , Phone, Sname

CSid, CapNo, SID

Table: CapNo, Pname, Role, Skill, DOB, Age

SID , Phone, Sname

CSid, CapNo, SID

**Has** ( Lid, Lteam, Lname, Lformat, Lmatch, contact, Mid, Mname, phone, salary, address)

1NF : contact, phone multivalued attribute

2NF : Lid , Lteam, Lname, Lformat, Lmatch, contact

Mid, Mname, phone, salary, address, LId

3NF : Lid , Lteam, Lname, Lformat, Lmatch, contact

Mid, Mname, phone, salary, address, Lid

Table : Lid , Lteam, Lname, Lformat, Lmatch, contact

Mid, Mname, phone, salary, address, Lid

**Appoints** (Mid, Mname, phone, salary, address, Did, Dname, Dadd, Dphone)

1NF : phone, D\_phone multivalued attribute

2NF : Mid, Mname, phone, salary, address, Did

Did, Dname, Dadd, Dphone

3NF : Mid, Mname, phone, salary, address, Did

Did, Dname, Dadd, Dphone

Table : Mid, Mname, phone, salary, address, Did

Did, Dname, Dadd, Dphone

**Manage** ( Mid, Mname, phone, salary, address, Tnumber, Tprice, firstClass, chair)

1NF : phone, multivalued attribute

2NF : Mid, Mname, phone, salary, address, Tnumber

Tnumber, Tprice, firstClass, chair

3NF : Mid, Mname, phone, salary, address, Tnumber

Tnumber, Tprice, firstClass, chair

Table : Mid, Mname, phone, salary, address, Tnumber

Tnumber, Tprice, firstClass, chair

**Fix** ( Mid, Mname, phone, salary, address, M\_id, date, result, toss)

1NF : phone multivalued attribute

2NF : Mid, Mname, phone, salary,address, M\_id

M\_id, date, result, toss

3NF : Mid, Mname, phone, salary,address,M\_id

Mid, date, result, toss

Table : Mid, Mname, phone, salary, address, M\_id

Mid, date, result, toss

**By** ( Mid, date, result, toss, Uid, country, DOB, age, Uname)

1NF : No multivalued attribute

2NF : Mid, date, result, toss

Uid, country, DOB, age, Uname

MUid, Mid, Uid

3NF :

Mid, date, result, toss

Uid, country, DOB, age, Uname

MUid, Mid, Uid

Table : Mid, date, result, toss

Uid, country, DOB, age, Uname

MUid, Mid, Uid

**At** ( Mid, date, result, toss, St\_id ,capacity, place, country, St\_name)

1NF : No Multivalued Attribute

2NF : Mid, date, result, toss

St\_id ,capacity, place, country, St\_name

MSid , Mid, ST\_id

3NF : Mid, date, result, toss

St\_id,capacity, St\_name,CP\_id

CP\_id, S\_country, place

MSid , Mid, ST\_id

Table **:**  Mid, date, result, toss

St\_id,capacity, St\_name,CP\_id

CP\_id, S\_country, place

MSid , Mid, ST\_id

***Total Table:***

Bid, Bname, contactNo, Coid

J\_ id, Job, Joining

Coid, Cname, crole, Agreement Time, Phone

Bid, , Bname, contactNo, Lid, J\_id

J\_ id, Job, Joining

Lid, Tteam, Lformate, Lname, T match, Contact

Lid, Tteam, Lformate, Lname, Tmatch, Contact

Tid, Odi, test, T20

LTid, Lid, Tid

Coid, Cname, crole, Agreement Time, Phone

CapNo, Pnamne, Role, Skill, DOB, Age

Cid, Coid, CapNo

CapNo, Pname, Role, Skill, DOB, Age

SID , Phone, Sname

CSid, CapNo, SID

Lid , Lteam, Lname, Lformat, Lmatch, contact

Mid, Mname, phone, salary, address, Lid

Mid, Mname, phone, salary, address, Did

Did, Dname, Dadd, Dphone

Mid, Mname, phone, salary, address, Tnumber

Tnumber, Tprice, firstClass, chair

Mid, Mname, phone, salary, address, M\_id

Mid, date, result, toss

Mid, date, result, toss

Uid, country, DOB, age, Uname

MUid, Mid, Uid

Mid, date, result, toss

St\_id,capacity, St\_name

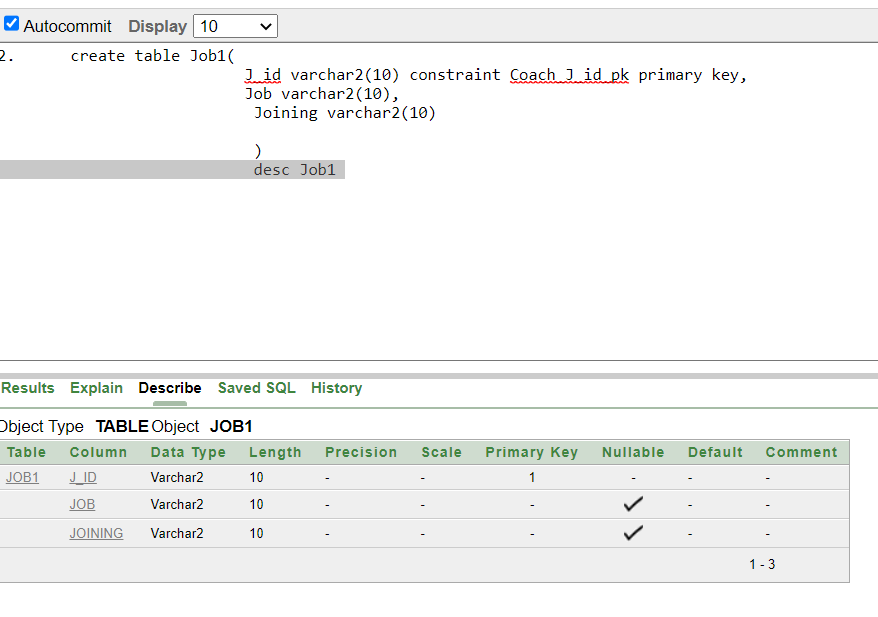
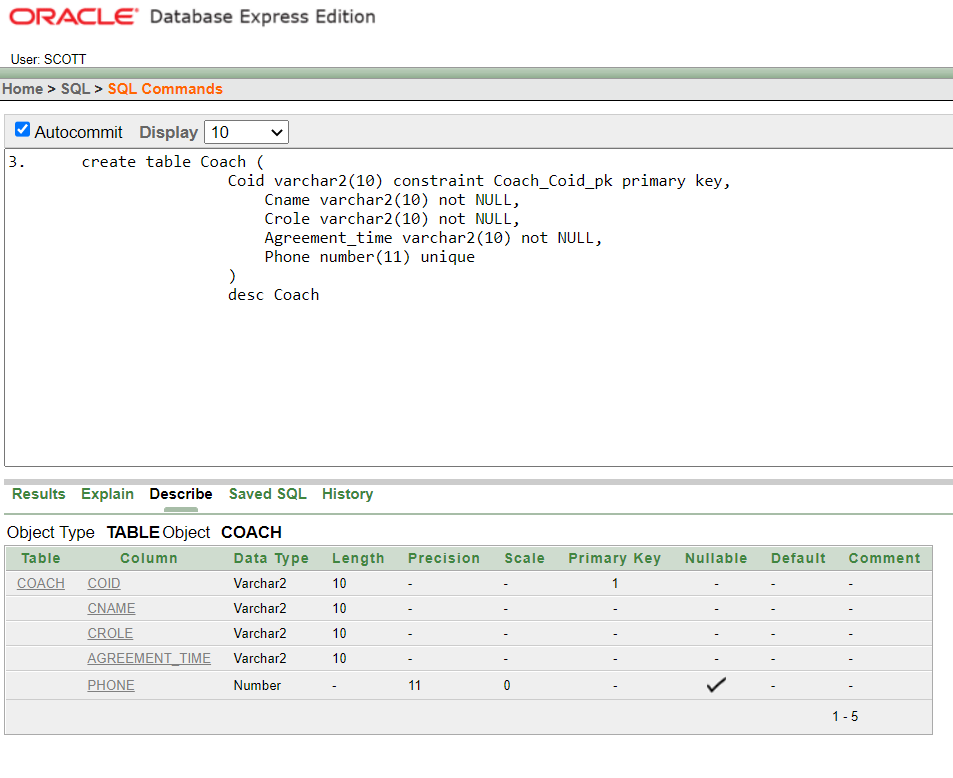
CPid, country, place

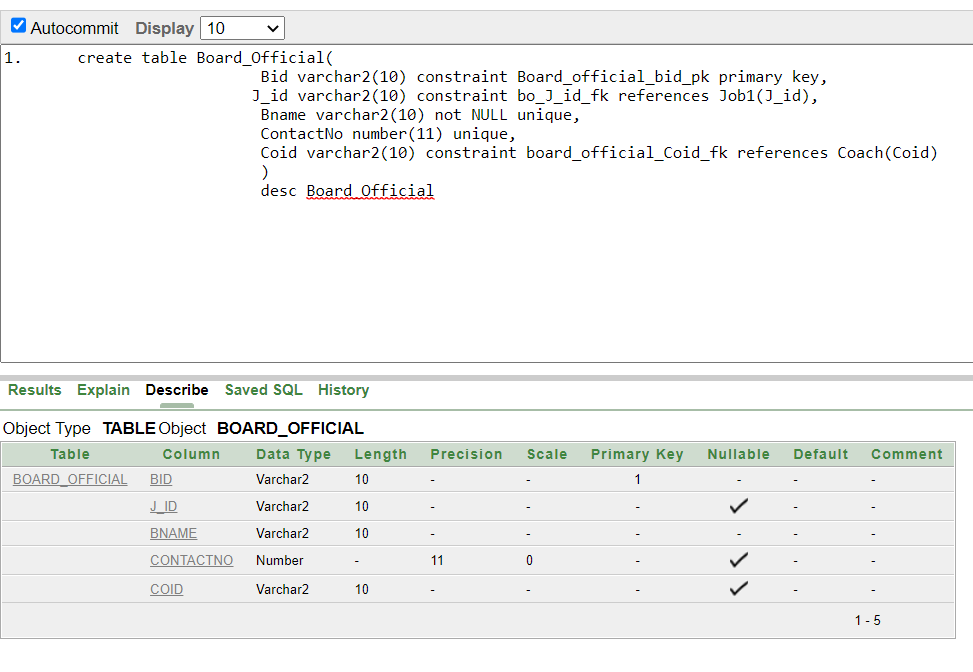
MSid , Mid, ST\_id

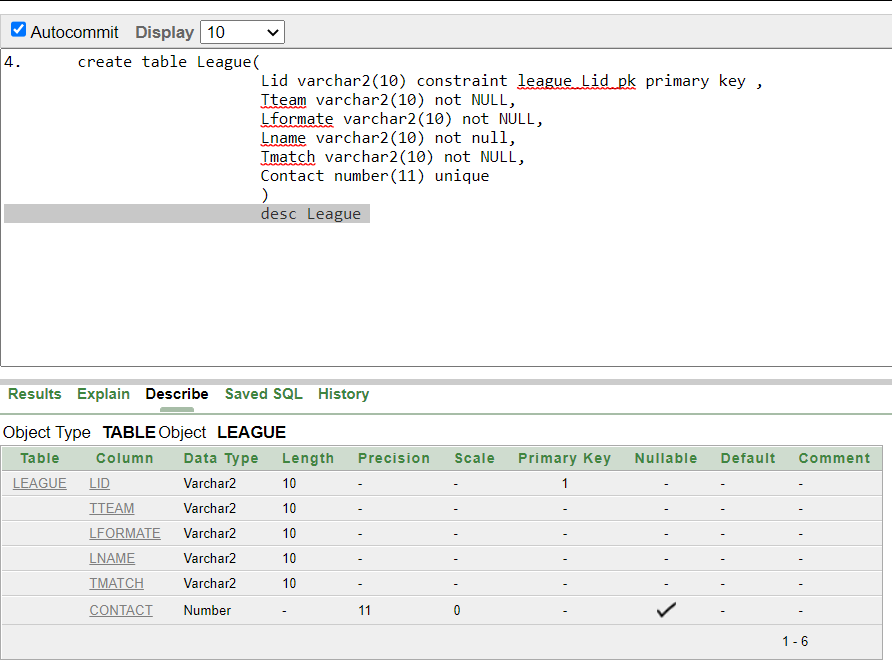
**Final Table:**

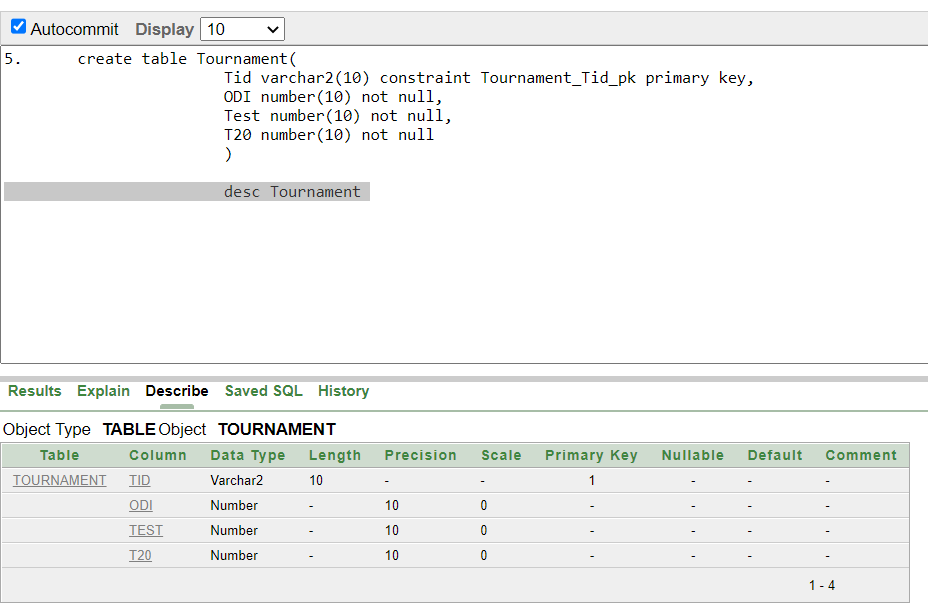
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2. J\_ id, Job, Joining
3. Coid Cname, crole, Agreement Time, Phone
4. Lid, Tteam, Lformate, Lname, T match, Contact
5. Tid, Odi, test, T20
6. LTid, Lid, Tid
7. CapNo, Pnamne, Role, Skill, DOB, Age
8. Cid, Coid, CapNo
9. SID , Phone, Sname
10. CSid, CapNo, SID
11. Mid, Mname, phone, salary, address, Lid
12. Mid, Mname, phone, salary, address, Did
13. Did, Dname, Dadd, Dphone
14. Mid, Mname, phone, salary, address, Tnumber
15. Tnumber, Tprice, firstClass, chair
16. Mid, Mname, phone, salary, address, M\_id
17. M\_id, MDate, MResult, Toss
18. U\_id, country, DOB, age, Uname
19. MUid, M\_id, U\_id
20. St\_id,capacity, St\_name,CP\_id
21. CP\_id, S\_country, place
22. MSid , M\_id, St\_id

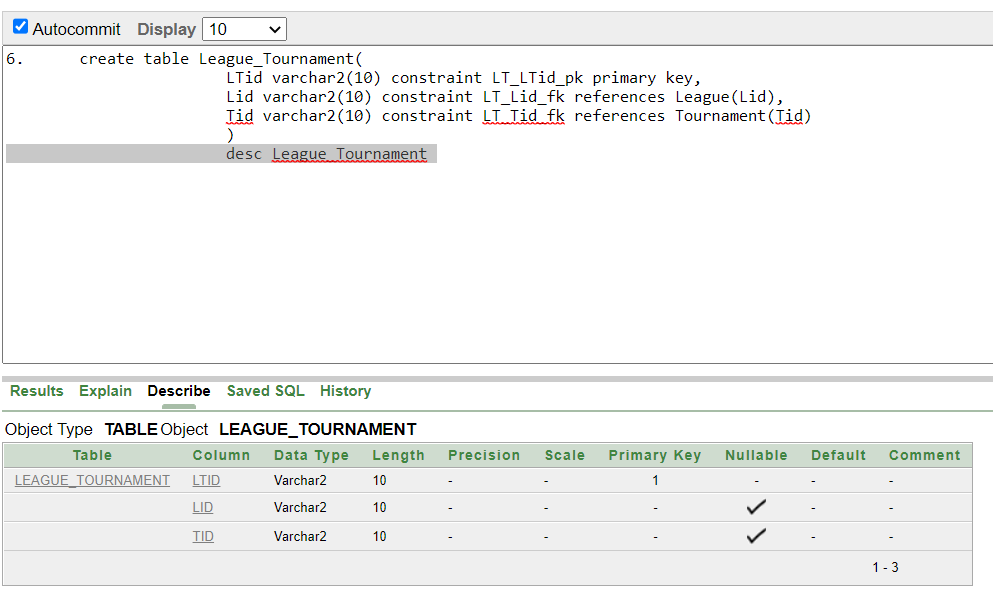
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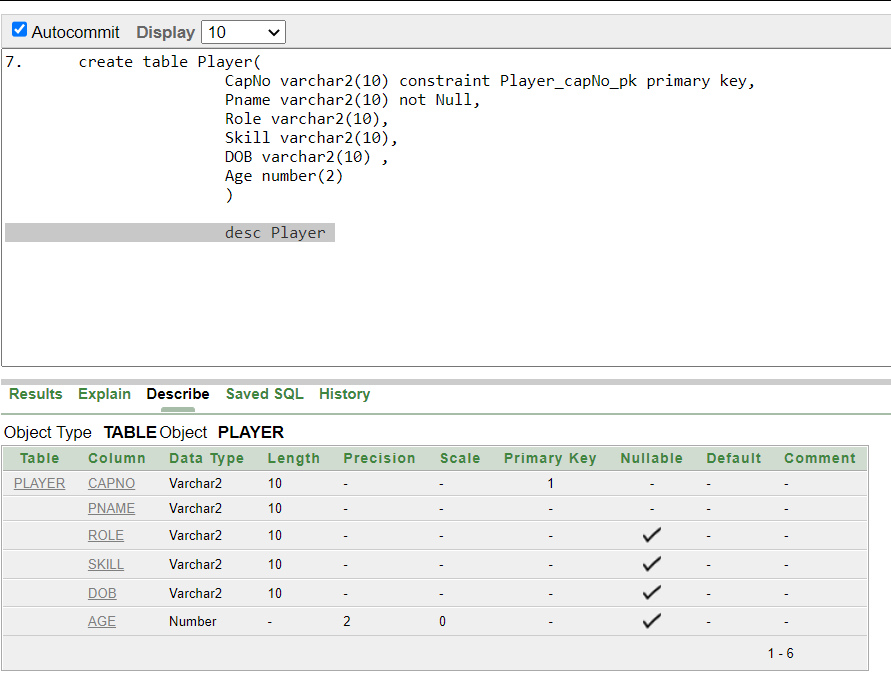


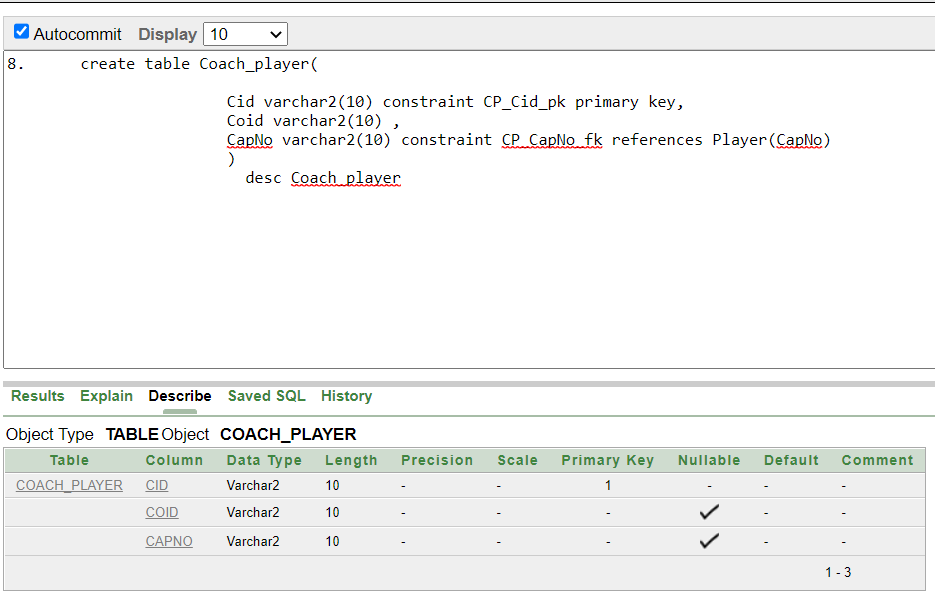


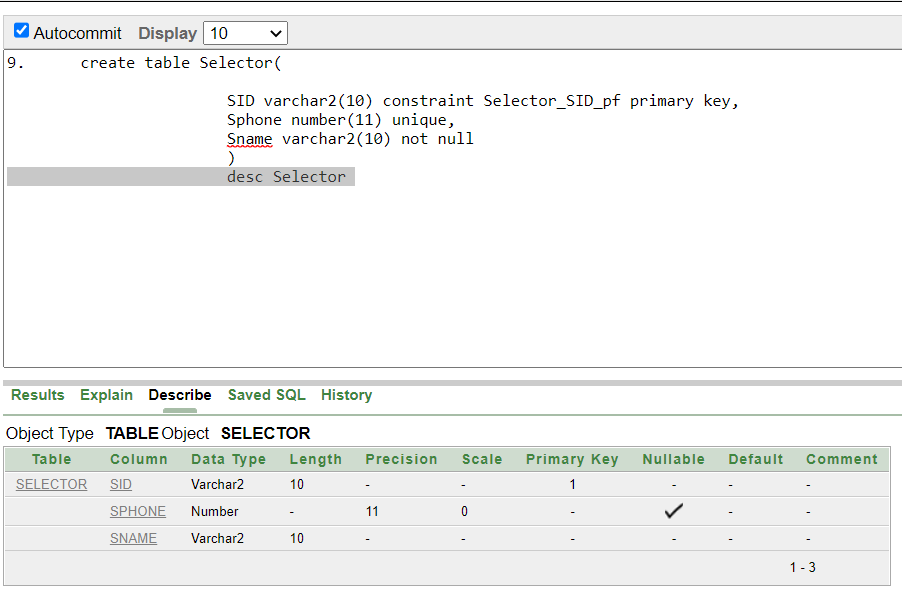


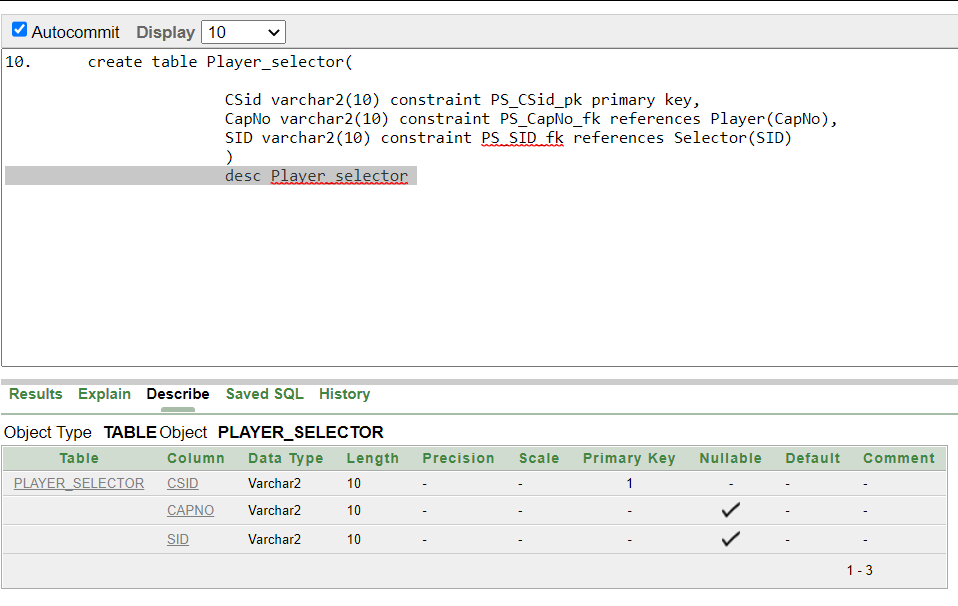


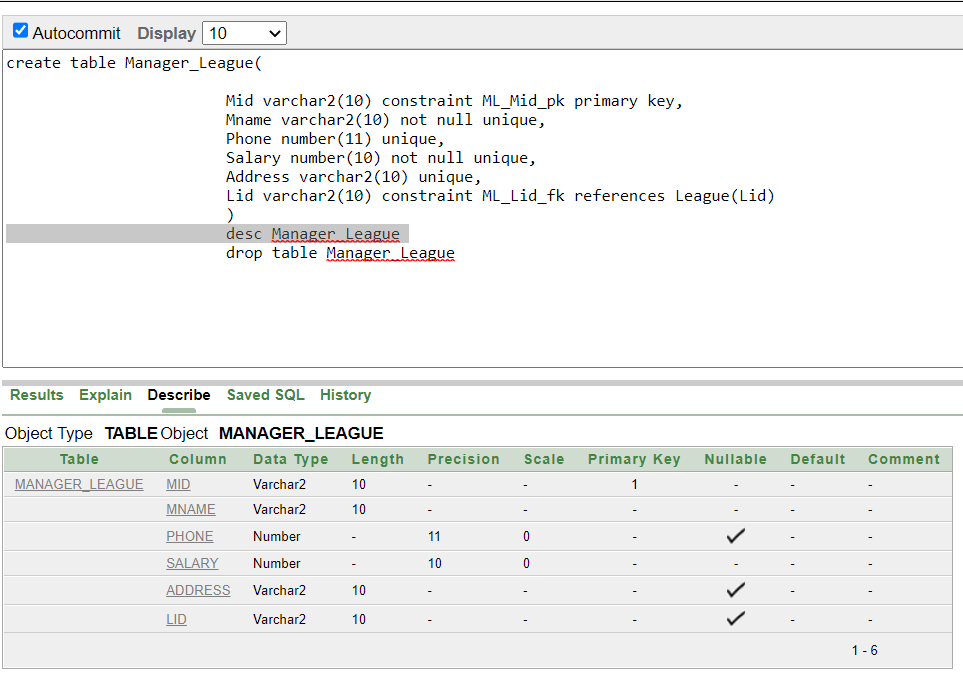


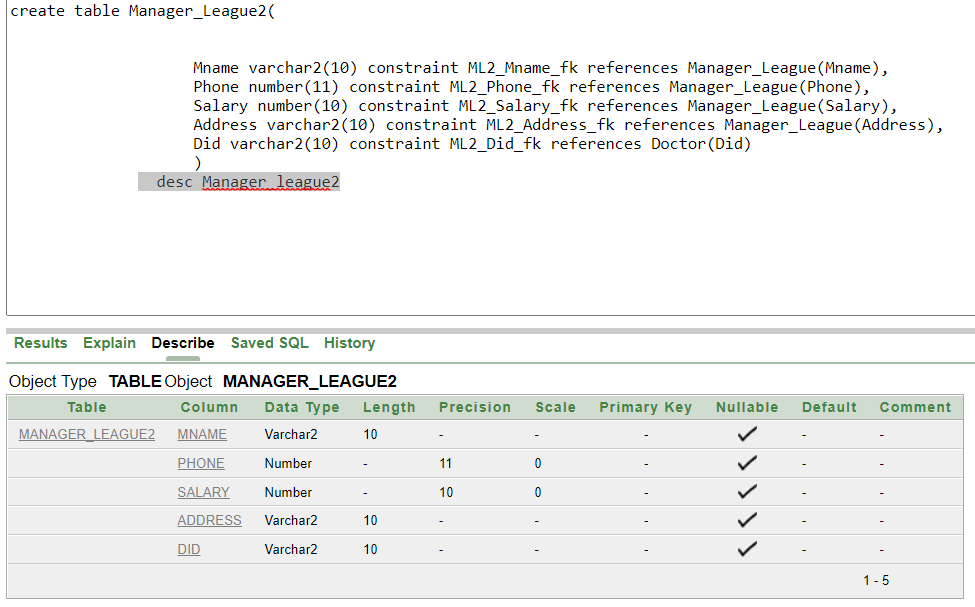


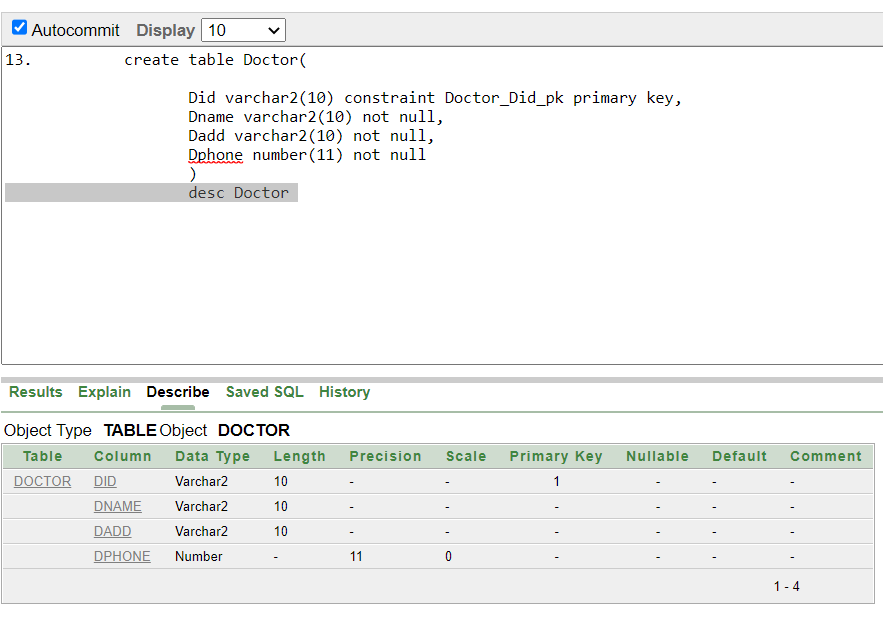


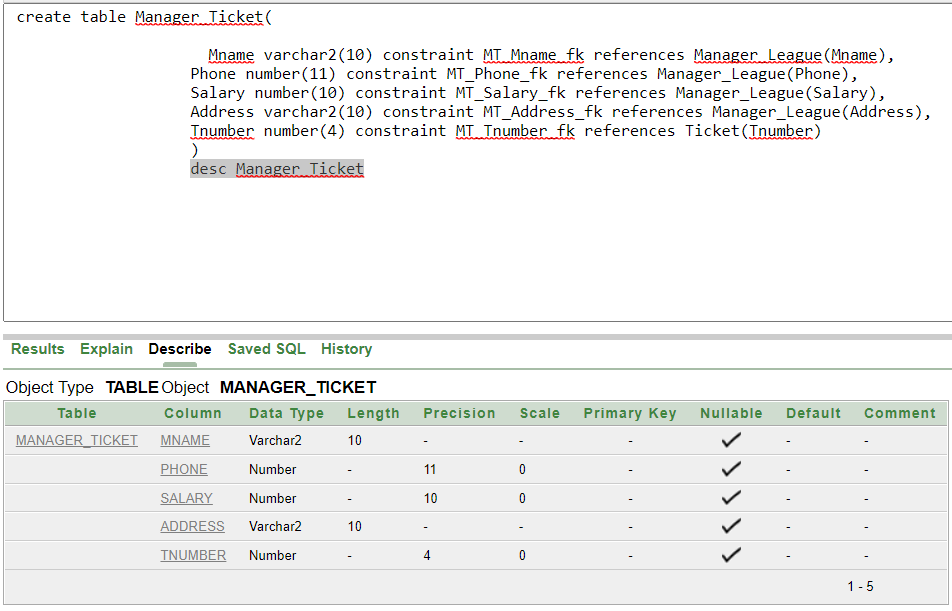


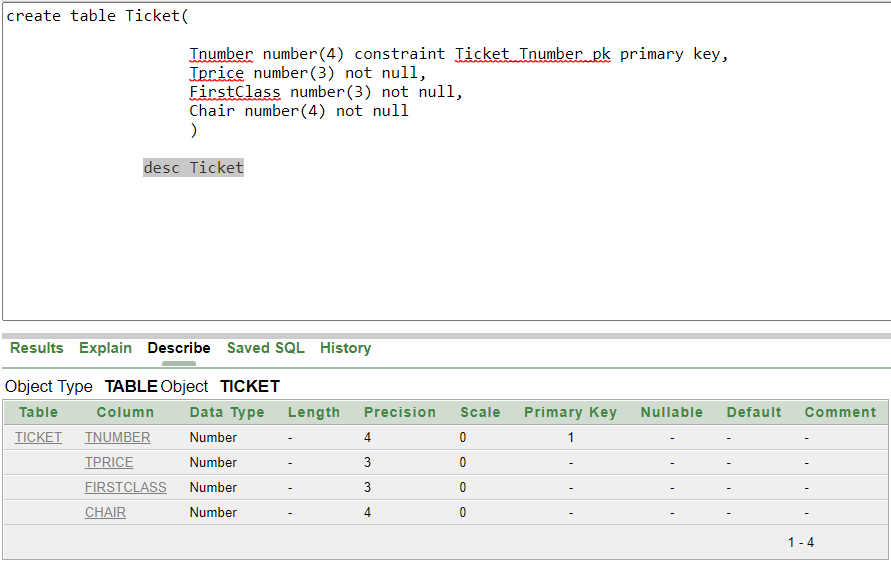
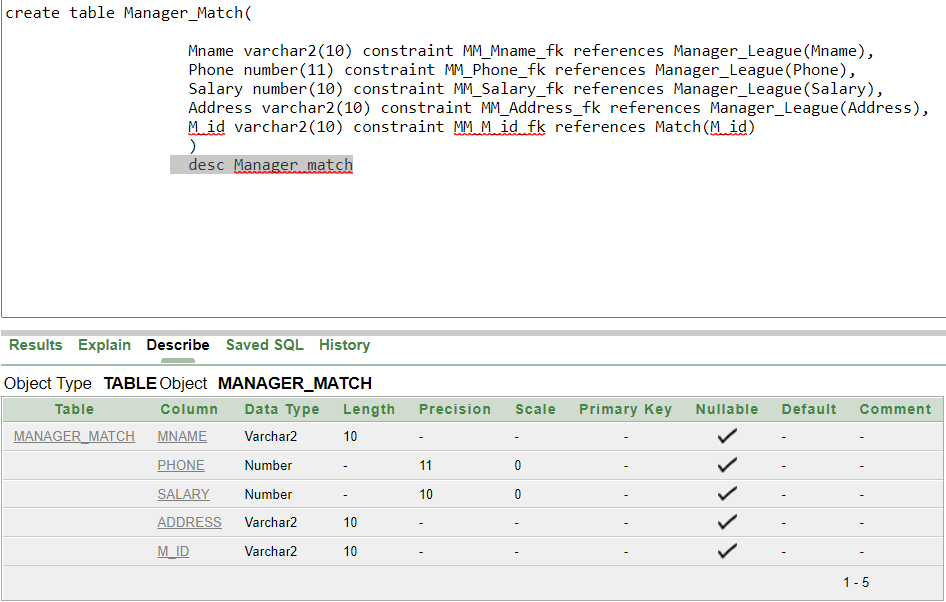


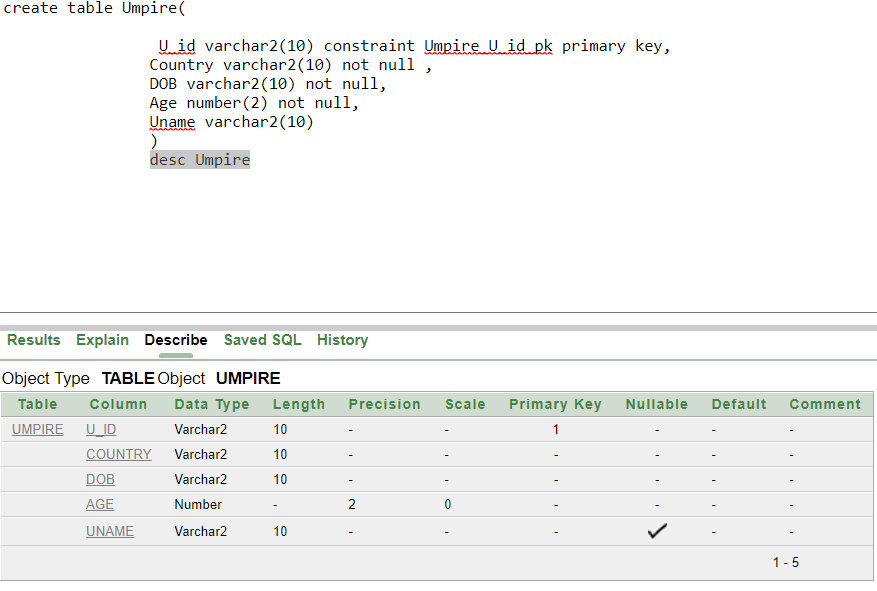
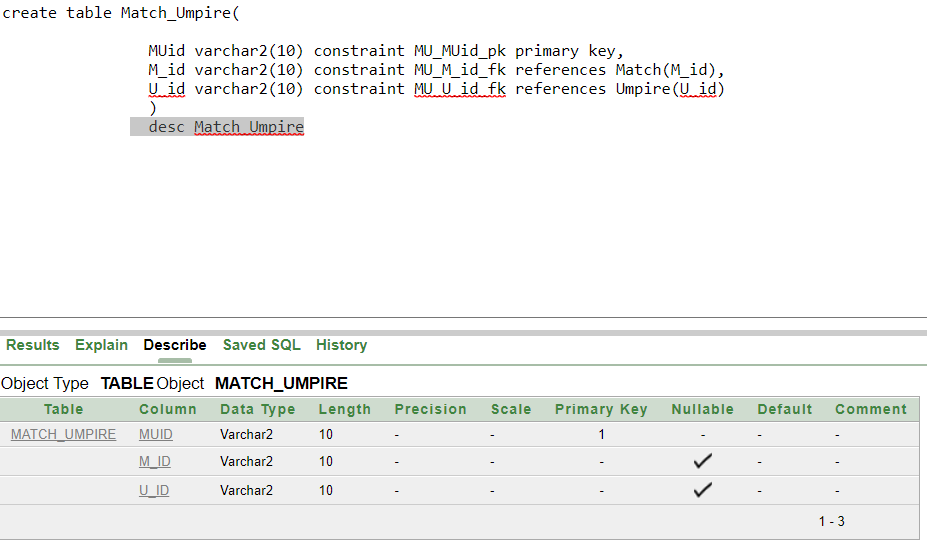


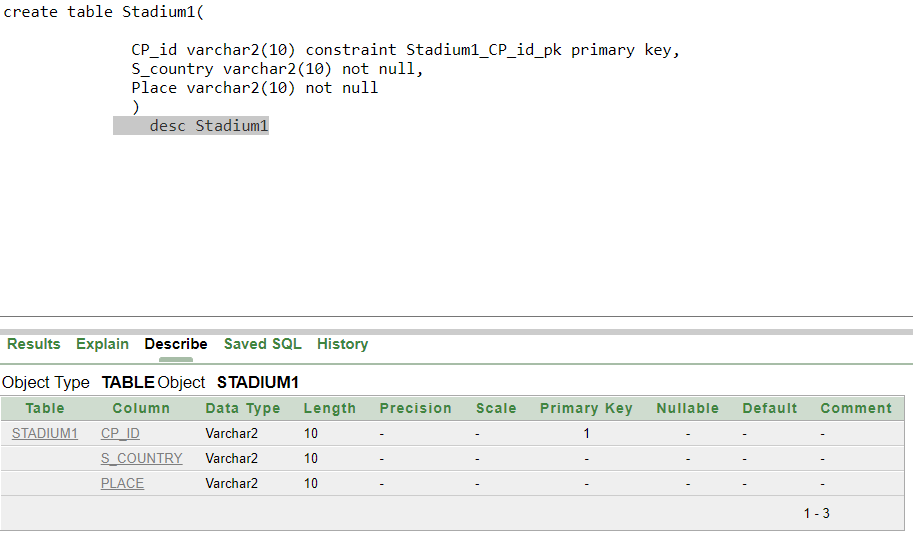
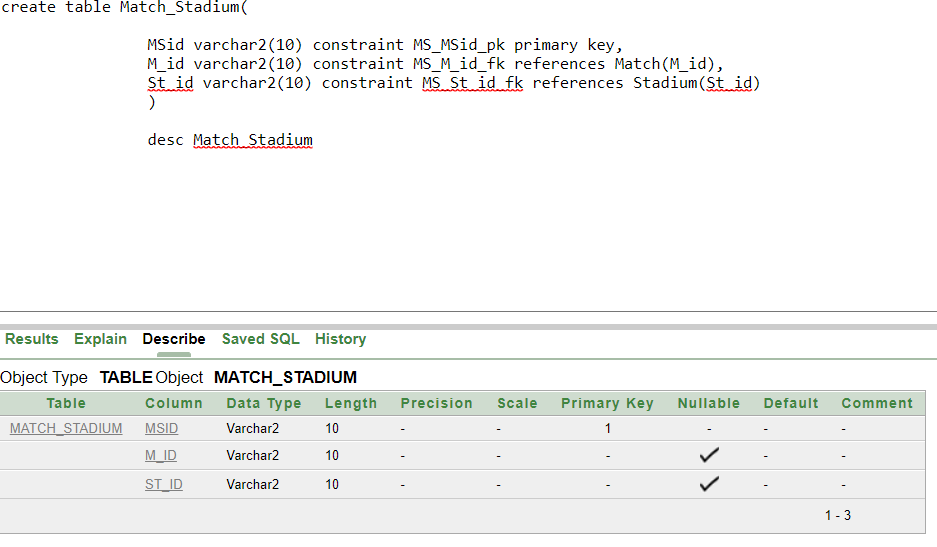


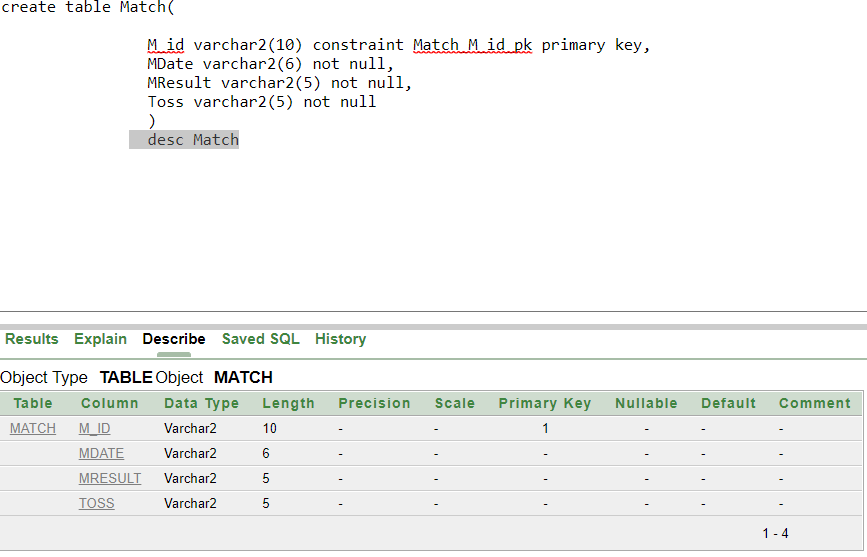
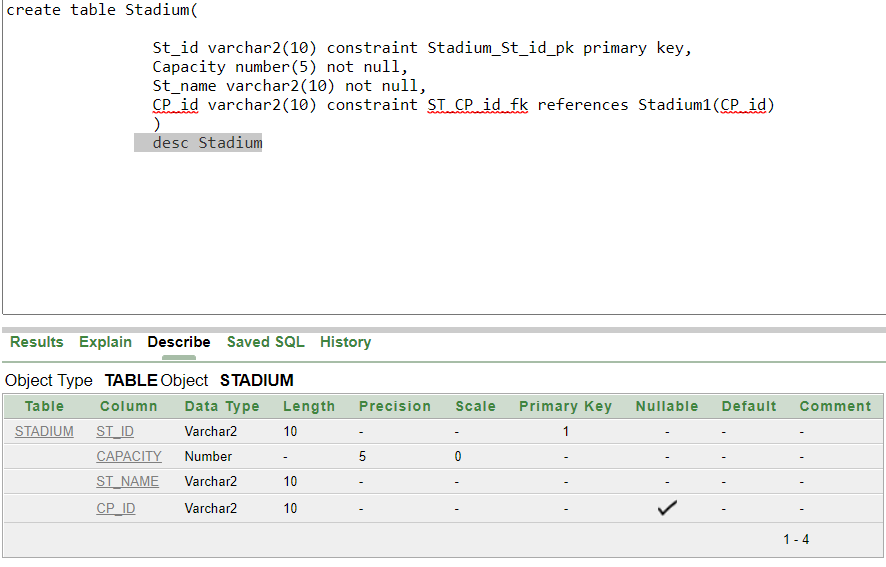




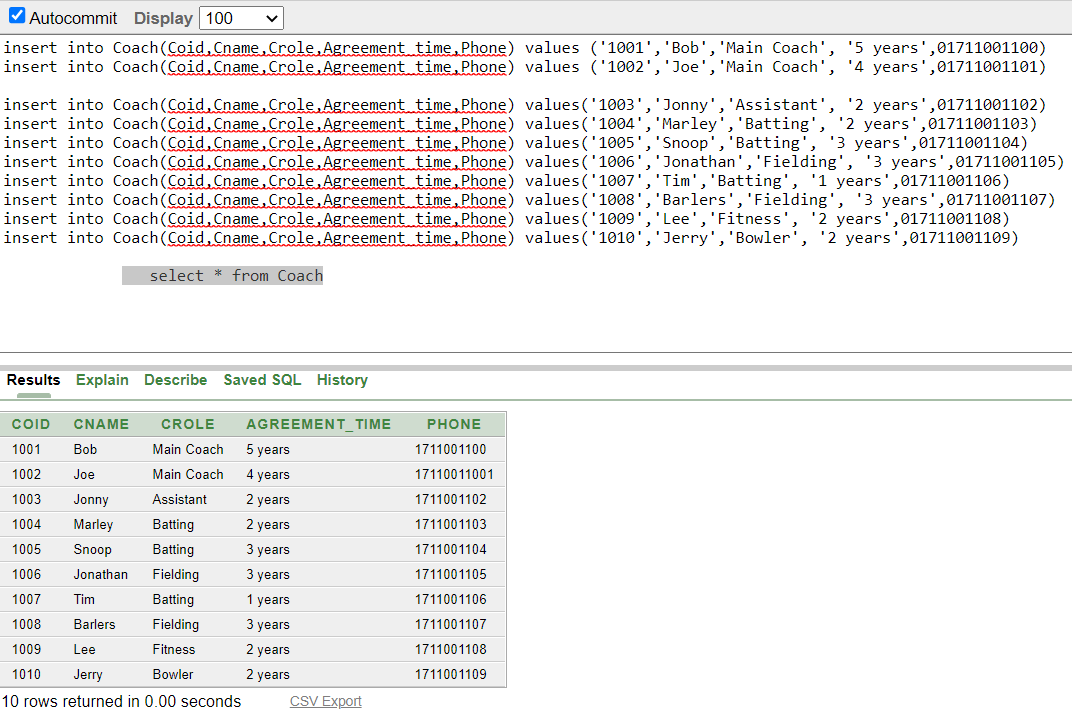


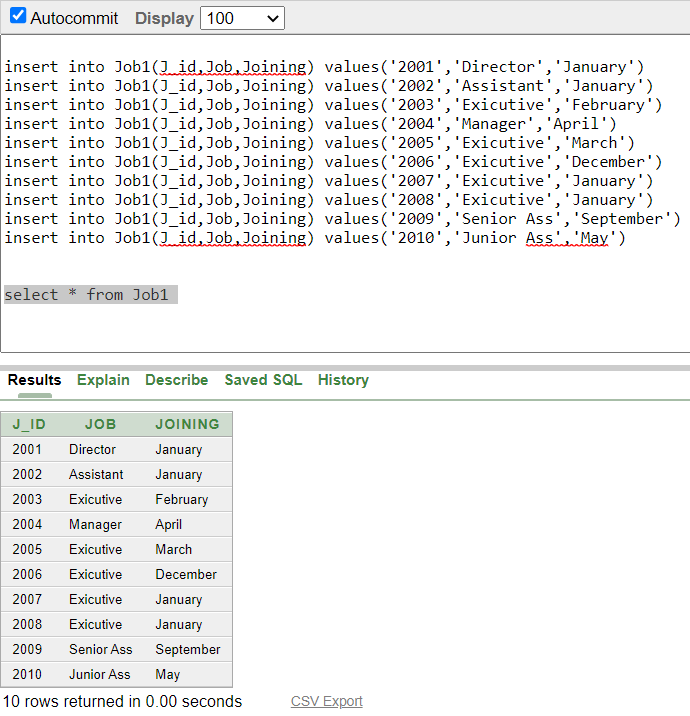






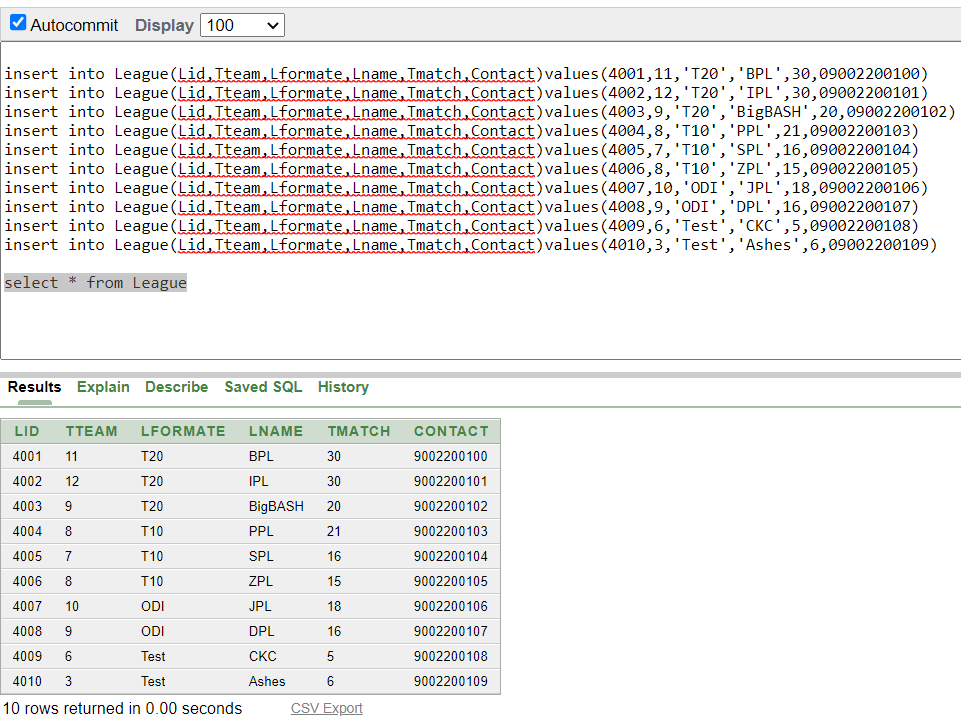
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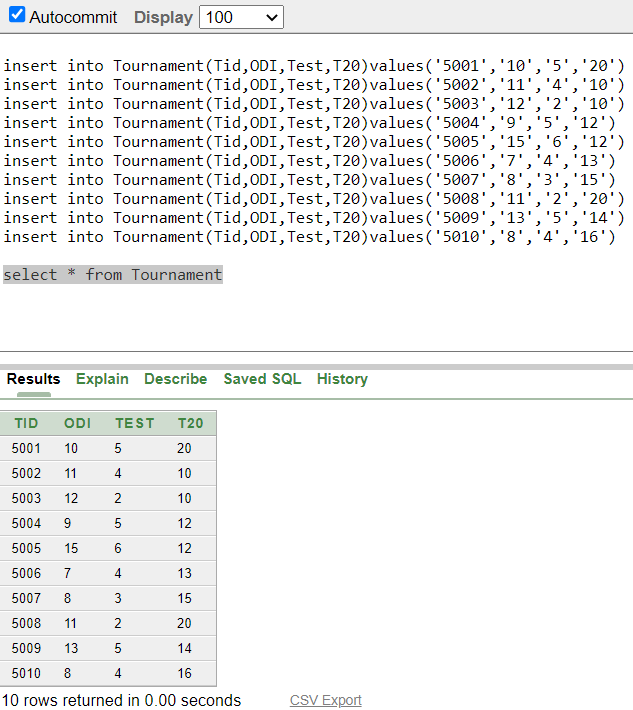


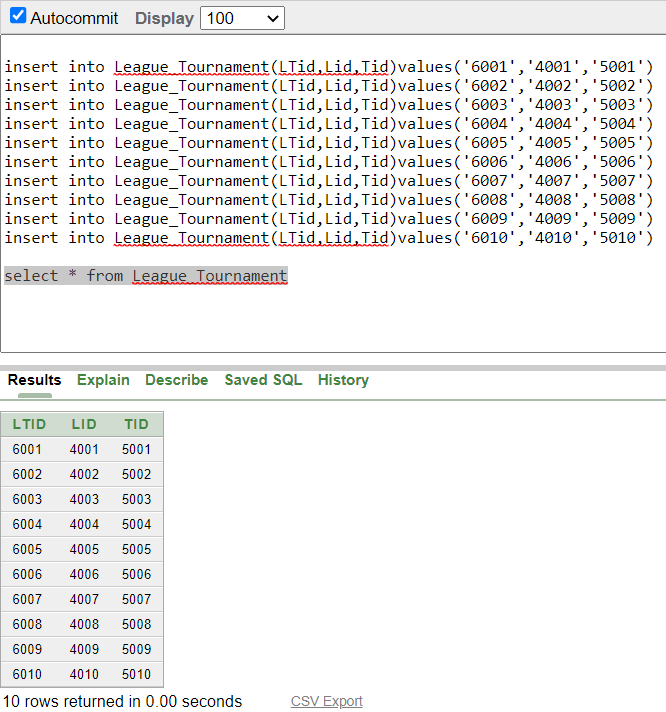


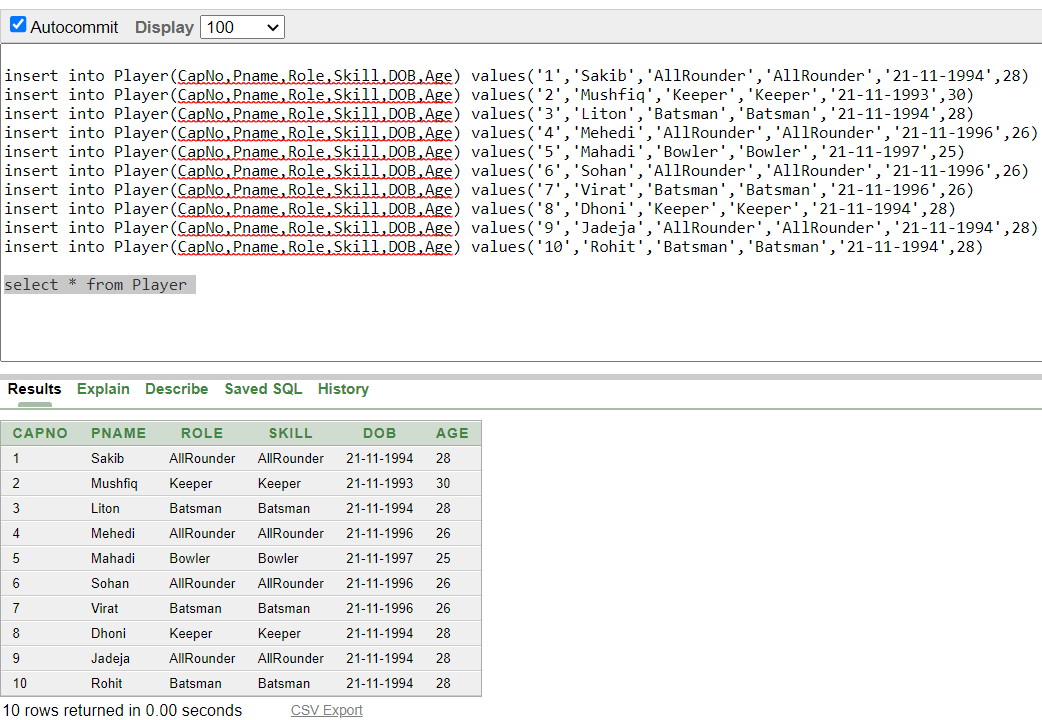
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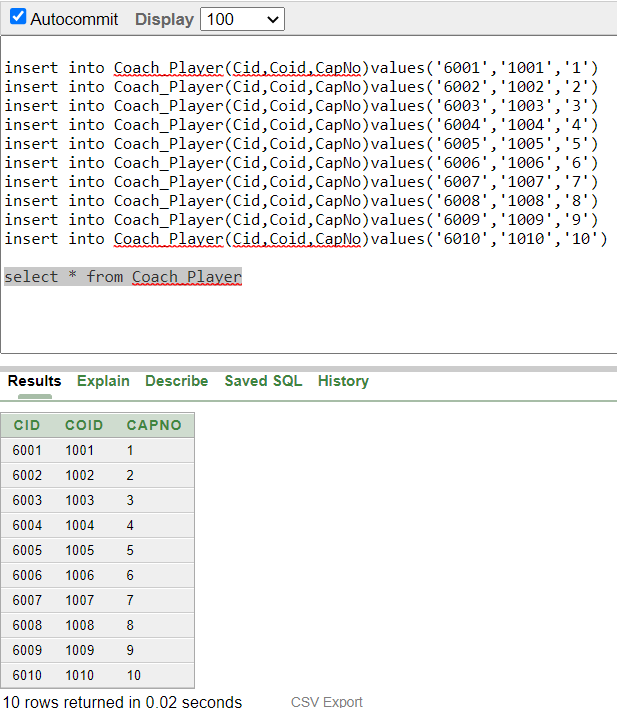
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Text

Description automatically generated

Text

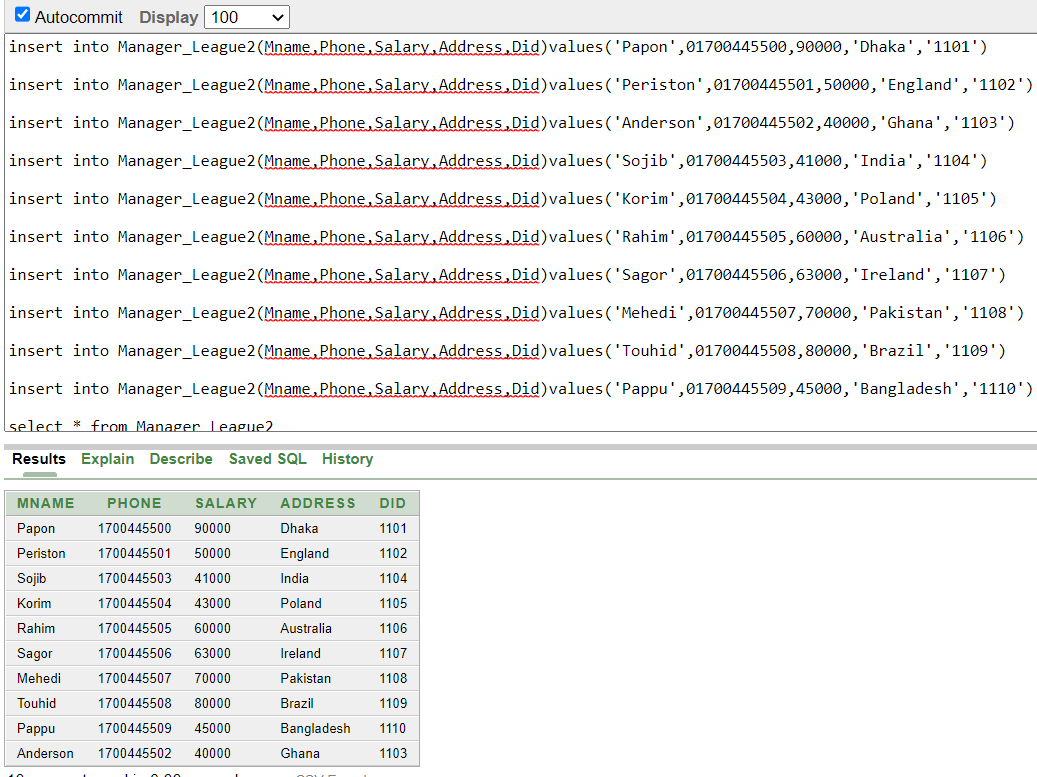
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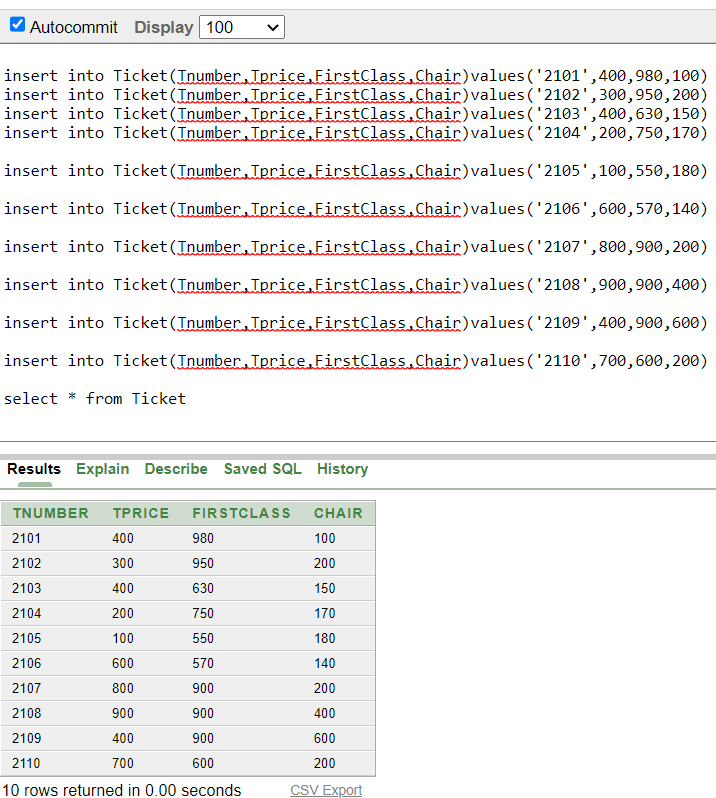
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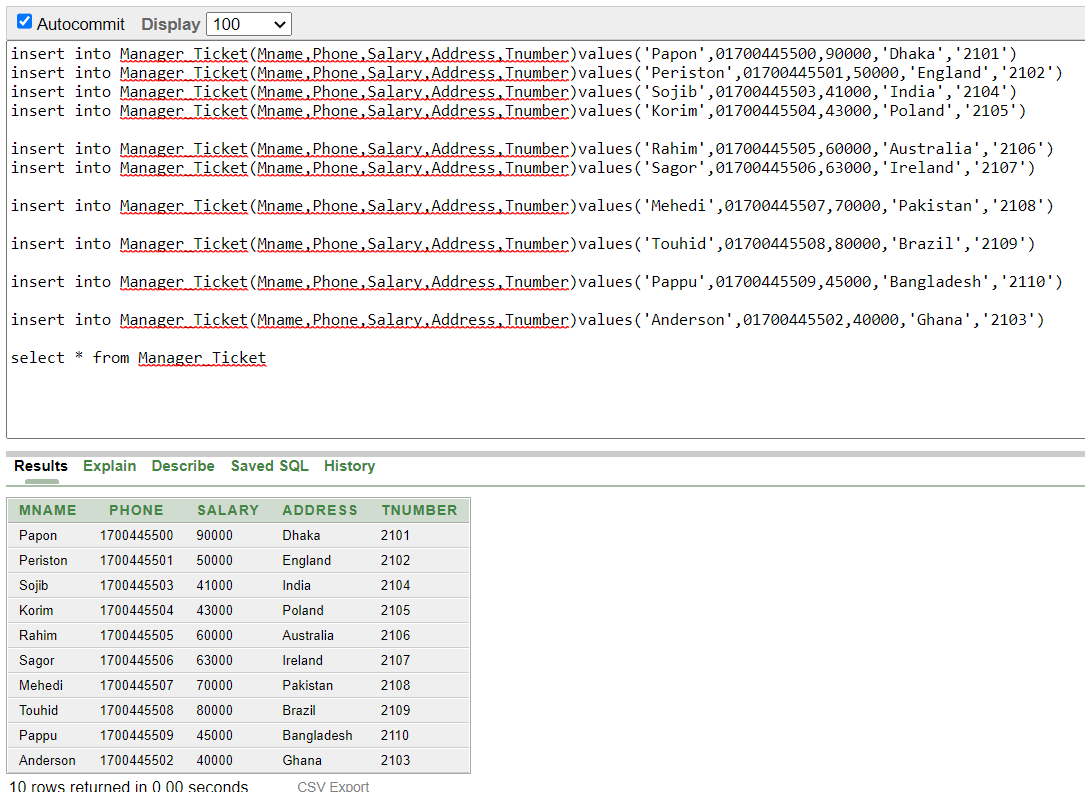
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Graphical user interface, text, application

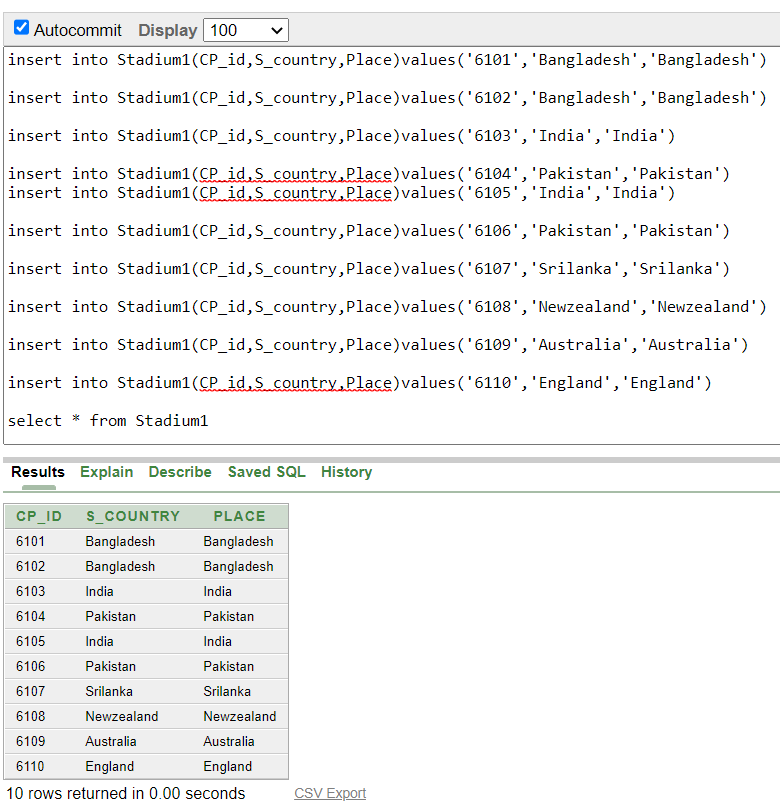
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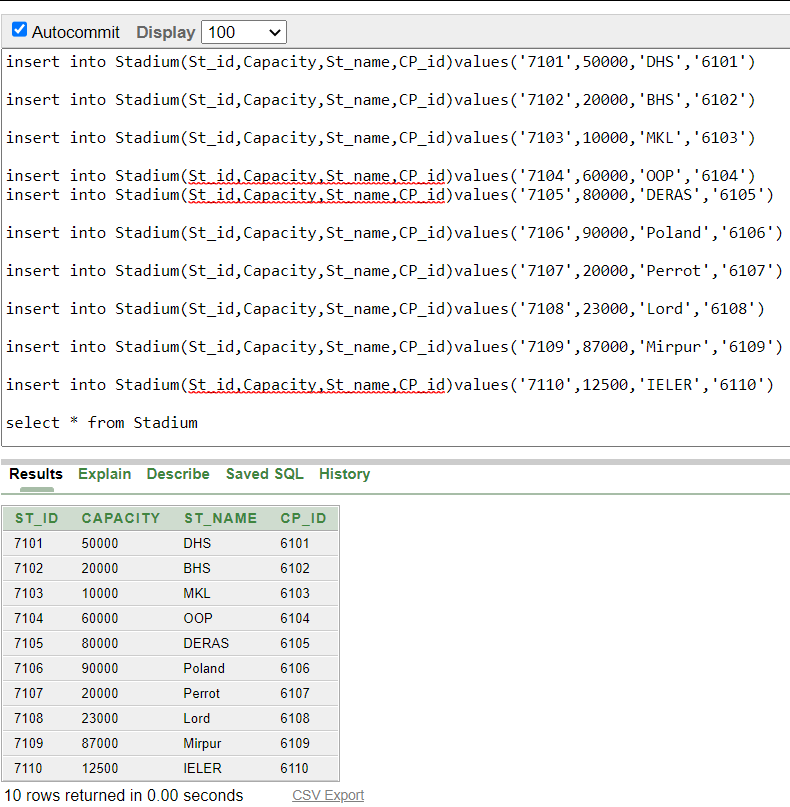
Graphical user interface, application, table

Description automatically generated

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Description automatically generated





Text

Description automatically generated

**General Query**

1.Display Coach ID, Coach name, Coach Agreement Time and Coach Phone number?

=>Select Coid,Cname,Agreement\_time,Phone from Coach

2.Display Board Official ID,Board Name where Coach ID is 1003?

=> select Bid,Bname from Board\_Official where Coid=’1003’

3.Display the number of ODI,Test and T20 series Tournament id is between 5001 and 5004?

=>select ODI,Test,T20 from Tournament where Tid between ‘5001’ and ‘5004’

4)Display Manager name, manager phone number, address and salary in descending order by salary?

=>select Mname,Phone,Address ,salary from Manager\_league order by salary desc

5)Display Player name and Date of Birth who have the skill Batsman from age 25 to 26?

=>select Pname,DOB from Player where Skill like ‘%Batsman%’ and Age between 28 and 30

**View**

1.Create a view and display the Coach name,Coach ID,Coach Role and Phone number where agreement time is less than 3 years.

=>

Create or replace view Coach\_Details

as

select c.Coid , c.Cname, c.Crole, c.Phone from Coach c where c.Agreement\_time <’3 years’

select \* from Coach\_Details

**Group Function**

1.Display the total salary of the Manager

=>select sum(Salary) from Manager\_League

2)Display the lowest and highest ticket price ?

=>select min(Tprice) ,max(Tprice) from Ticket

3)Display the number of League name in which there is at least an ‘L’?

=>select count(Lname) from League where Lname like ‘%L%’

4)Display the maximum capacity where Stadium Id is greater than 7103?

=>select max(Capacity) from Stadium where CP\_id>’7103’

5)Display the average ticket price where firstClass ticket in between 550 to 980?

=>select avg(Tprice) from Ticket where FirstClass between 550 and 980

**Single Row Function**

1.Display all the information of the Manager in uppercase where salary>60000?

=>select Mid,UPPER(Mname) , Phone,UPPER(Address) from Manager\_League where Salary>60000

2.Display all information about the Doctor whose name is ‘osoa, altaf’

=>select \* from Doctor where lower(Dname) =’osoa, altaf’

3.Display the Stadium name and the capacity concataning like ‘StadiumName has Capacity’

Select (ST\_name ||’ ‘||’has’||’ ‘||capacity) from Stadium

4.Display the annual salary of the manager who lives in Ireland and also name the table annual salary

Select (salary\*12)as Annual\_Salary from Manager\_Ticket where Address=’Ireland’

5.display the country length, Date of birth ,age and concat the umpire name and id

Select (Uname ||’ ‘||U\_ID), length(country) as Country\_Length, DOB,Age from Umpire

**Subquery**

1.Display the manager name and salary for all managers who earn more than manager number 9005

Select Mname,salary from Manager\_League where salary>(select Mid from Manager\_League where Mid=’9005’

2.Display the joining month and job of the Board officials who was joined after job number 2004

Select Job, Joining from Job1 where Joining >(select Joining from Job1 where J\_id=’2004’)

3.Display the umpire name ,age ,date of birth for all umpires who lives in the same country whose umpire id is 4101

Select Uname,Age,DOB,U\_id from Umpire where country in(select country

from Umpire where u\_id=’4101’)

4.Display the Stadium id ,capacity ,stadium name where the capacity is greater than equal to the stadium name DHS,OOP and Lord

select st\_id, capacity , st\_name from Stadium where capacity>=any(select capacity from Stadium where st\_name in ('DHS','OOP','Lord'))

5. Display Mname, phone, salary, address of all managers who have salary less then those managers who have 'P' at first of their name.

Select mname, phone, salary, address from manager\_league2 where salary <all (select salary from manager\_league2 where mname like 'P%')

**Sequence**

create sequence seriall increment by 1 start with 1111 maxvalue 2100 nocycle

insert into Stadium1(CP\_id,S\_country,Place)values(seriall.nextval,'Nepal','Nepal')

insert into Stadium1(CP\_id,S\_country,Place)values(seriall.nextval,'Argentina','Argentina')

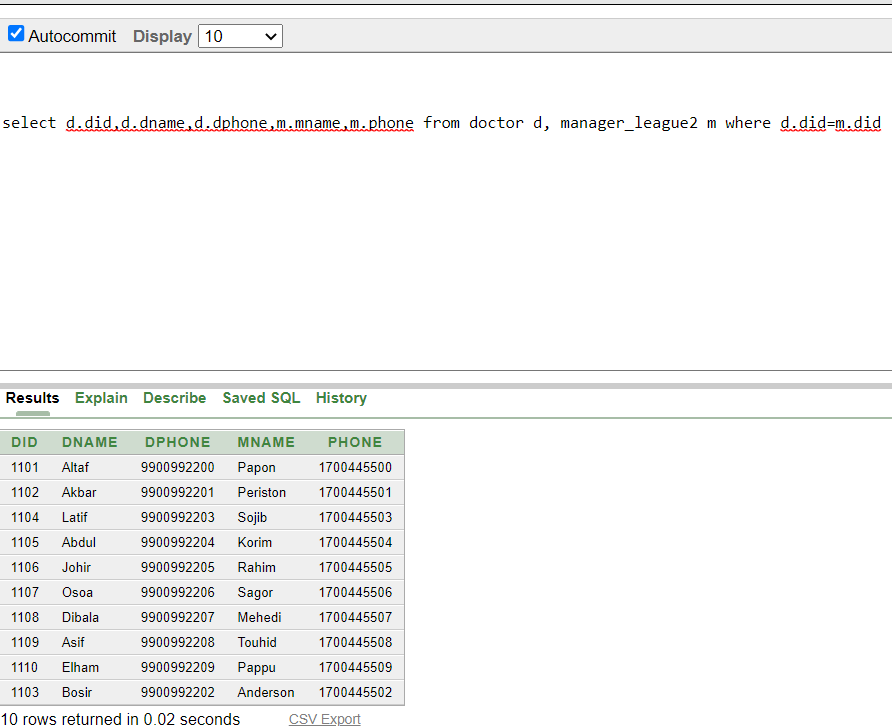
select \* from Stadium1 where place = ANY('Argentina','Argentina')

**Joining**

**Equivalent Joint:**

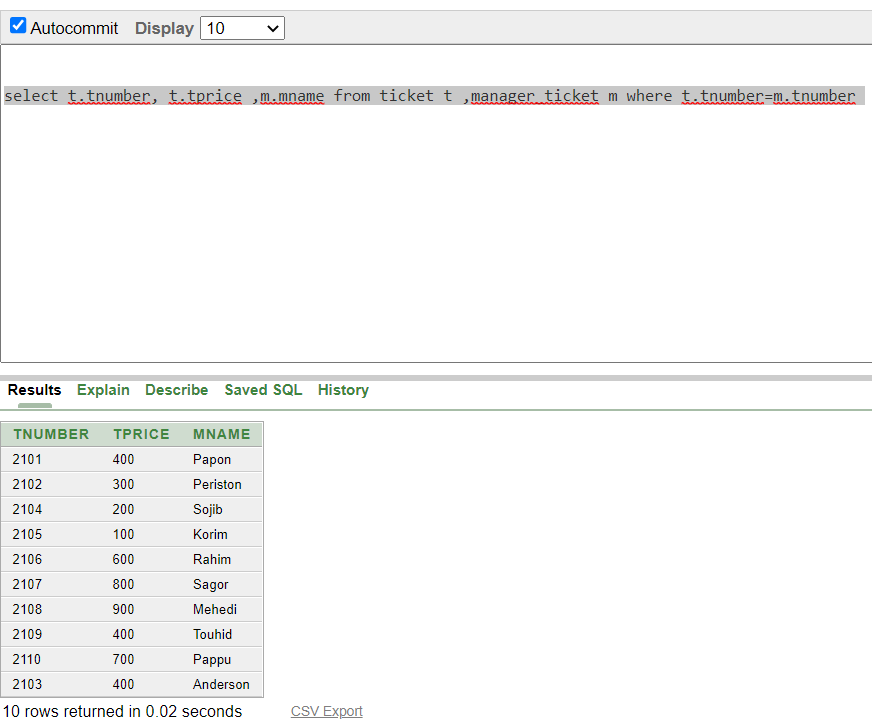
1.Display doctors id,dname,phone number along with managers name and phone number?

select d.did,d.dname,d.dphone,m.mname,[m.phone](http://m.phone) from doctor d, manager\_league2 m where d.did=m.did



2.Display ticket no ,ticket price along with the manager name of all tickits?

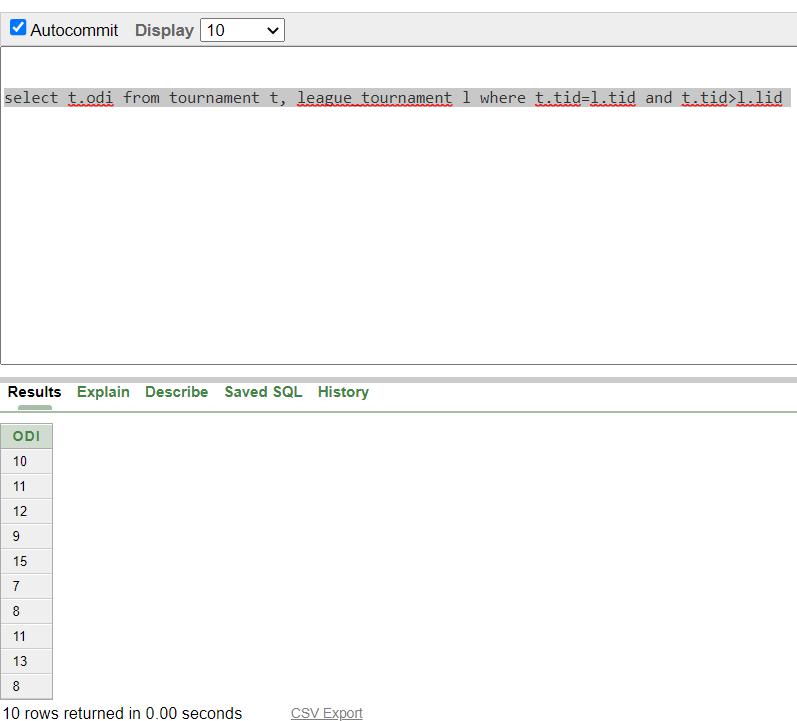
select t.tnumber, t.tprice ,m.mname from ticket t ,manager\_ticket m where t.tnumber=m.tnumber



**Non Equivalent Joint:**

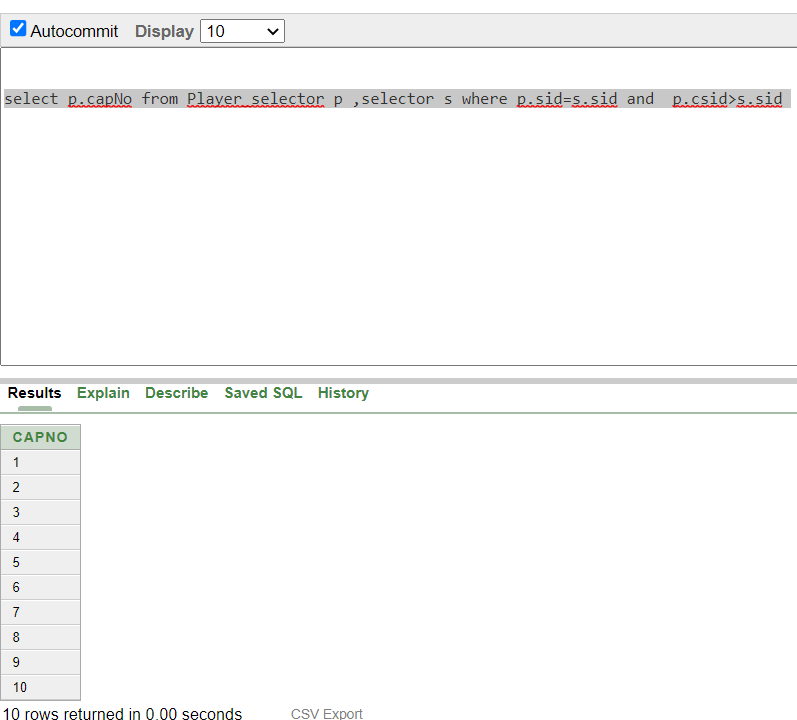
1.Display number of odi matches of a tournament where tournment id is more than league id?

select t.odi from tournament t, league\_tournament l where t.tid=l.tid and t.tid>l.lid



2.display number of captain when PlayerSelector\_id is greater than selectors id?

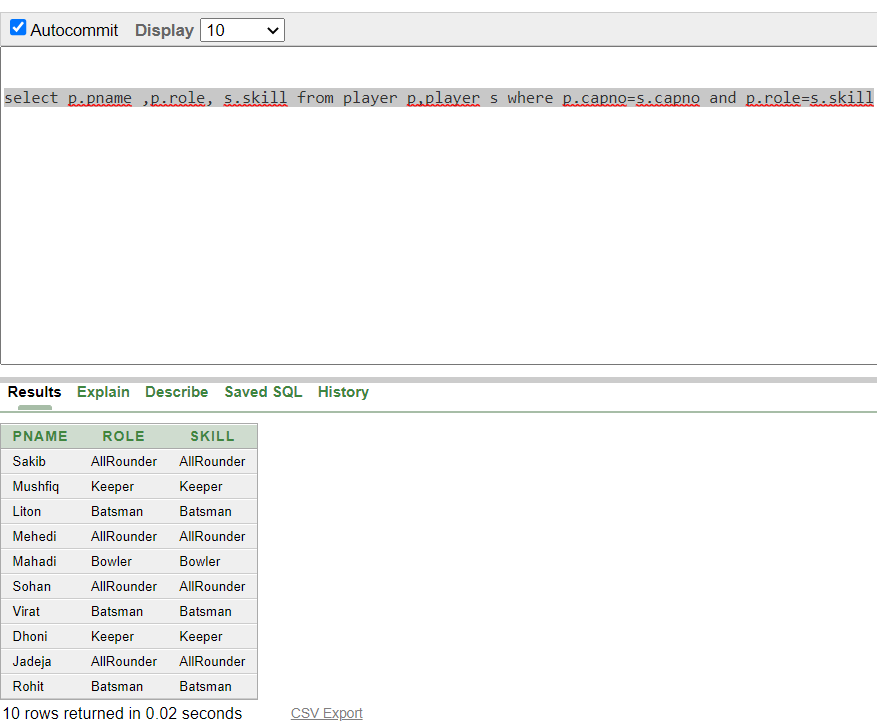
select p.capNo from Player\_selector p ,selector s where p.sid=s.sid and p.csid>s.sid



**Self Joint:**

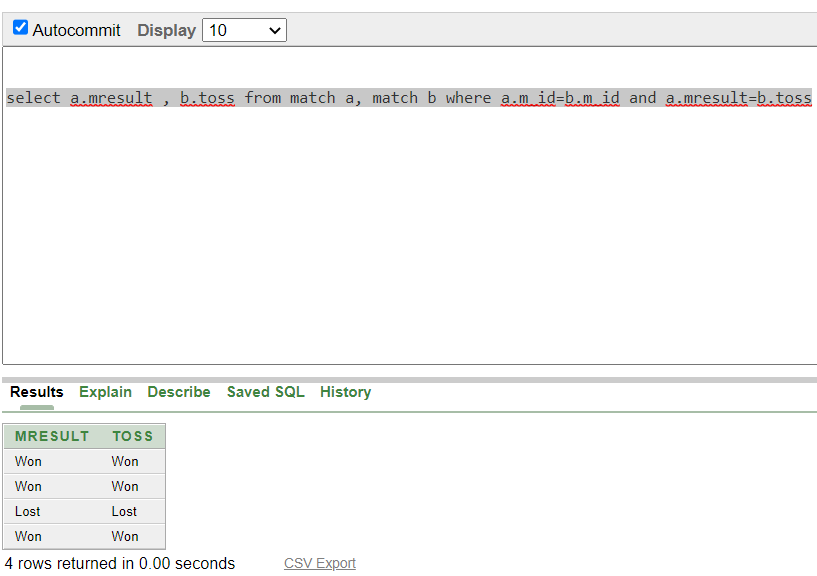
1.display player name,role and skill of those who has same role and skill?

select p.pname ,p.role, s.skill from player p,player s where p.capno=s.capno and p.role=s.skill



2.Display the match result and toss result of those matches win by winning tosses and lost by lossing tosses?

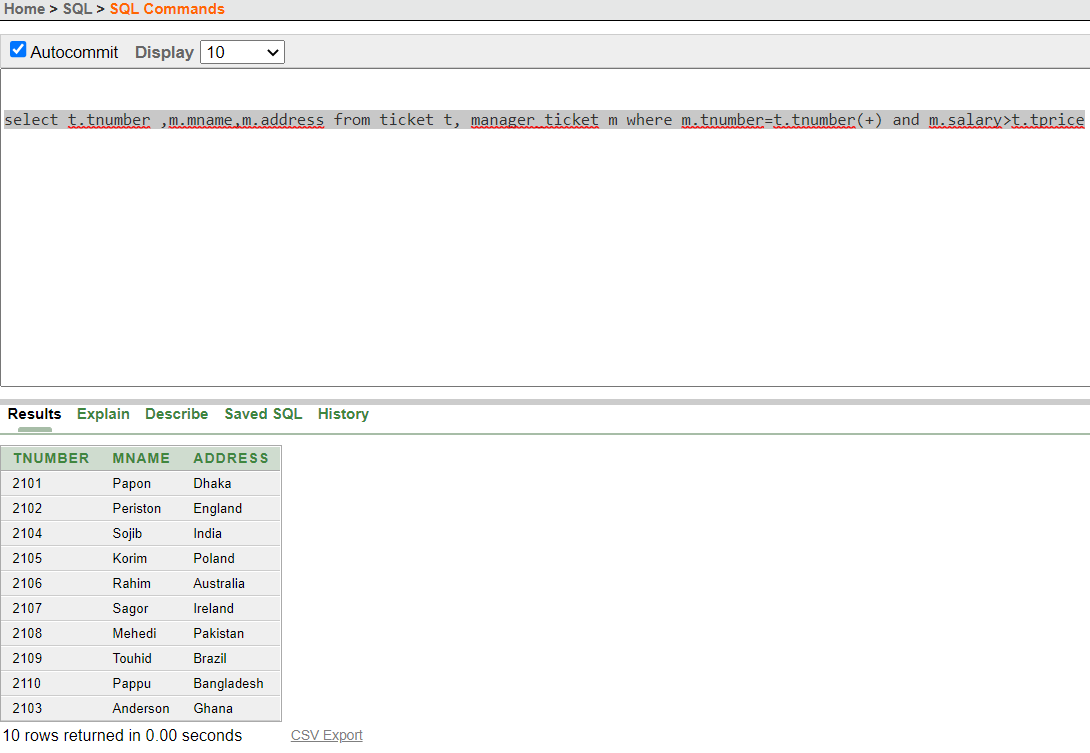
select a.mresult , b.toss from match a, match b where a.m\_id=b.m\_id and a.mresult=b.toss



**Outer Joint:**

1.Display ticket number along with all managers name and address where manager salary is greater ticket price ?

select t.tnumber ,m.mname,m.address from ticket t, manager\_ticket m where m.tnumber=t.tnumber(+) and m.salary>t.tprice



2.display all stadium info with match id?

select m.m\_id,s.st\_id,s.capacity,s.st\_name,s.cp\_id from stadium s ,match\_stadium m where m.st\_id(+)=s.st\_id

