

American International University-Bangladesh

Project Title:

Sporting Club Management System

Course Name:

ADVANCE DATABASE MANAGEMENT SYSTEM

Section: A

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Introduction:

Sporting Club Management System: This system will help the users do their task easily and efficiently. It will also restrict unauthorized access to confidential data.

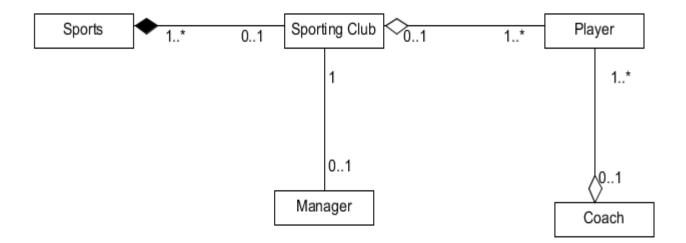
Project proposal:

Sporting Club Management System: We designed this system for 3 types of users,

- 1. Manager
- 2. Player
- 3. Coach

The system is designed to manage player registration, club activity, sensitive personal and financial data of a sporting club.

Class Diagram:





Manager

- -M_ID: String = none{assigned by system}
- -Manager Name: String = Blank
- -/Salary: double(dollar) = null
- -/Phone: String = none
- -Email: String = blank - Address : Address = null
- +getName():String
- +setName(name:String)
- +getSalary():Double
- +setSalary(salary:double)
- +getPhone():string
- +setPhone(Phone:string)
- +getEmail():String
- +setEmail(Email:String)
- +getAddress():Address
- +setAddress(Street:String, city:string,
- state: string, Zipcode: integer)

Sporting Club

- -Club_ID: String = none{assigned by system}
- -Club Name: String = Blank
- -Establish year: Date=Date/Month/year
- -/Phone: String = none -Email: String = blank - Address : Address = null
- +getName():String
- +setName(name:String)
- +getEstablishYear():Date
- +setEstablishyear(Date:Date)
- +getPhone():string
- +setPhone(Phone:string)
- +getEmail():String
- +setEmail(Email:String)
- +getAddress():Address
- +setAddress(Street:String, city:string,
- state: string, Zipcode: integer)

Player

- -P_ID: String = none{assigned by system}
- -Player Name: String = Blank
- -/Salary: double(dollar) = null
- -/Phone: String = none
- -Email: String = blank - Address : Address = null
- +getName():String
- +setName(name:String)
- +getSalary():Double
- +setSalary(salary:double)
- +getPhone():string
- +setPhone(Phone:string)
- +getEmail():String
- +setEmail(Email:String)
- +getAddress():Address
- +setAddress(Street:String, city:string,
- state: string, Zipcode: integer)

Coach

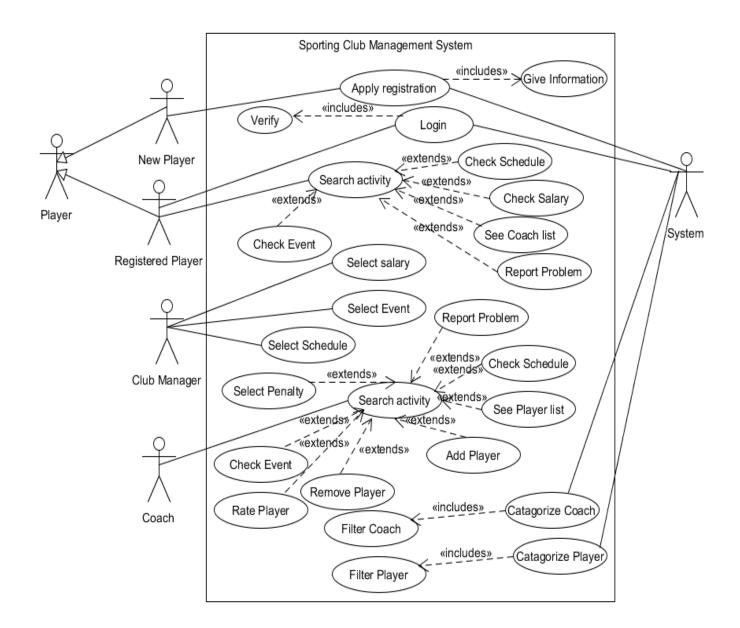
- -C_ID: String = none{assigned by system}
- -Coach Name: String = Blank
- -/Salary: double(dollar) = null
- -join:date= Date/Month/year(system)
- -/Phone: String = none
- -Email: String = blank
- Address : Address = null
- +getName():String
- +setName(name:String)
- +getSalary():Double
- +setSalary(salary:double)
- +getPhone():string
- +setPhone(Phone:string)
- +getEmail():String
- +getAddress():Address
- +setAddress(Street:String, city:string,
- state: string, Zipcode: integer)

Sports

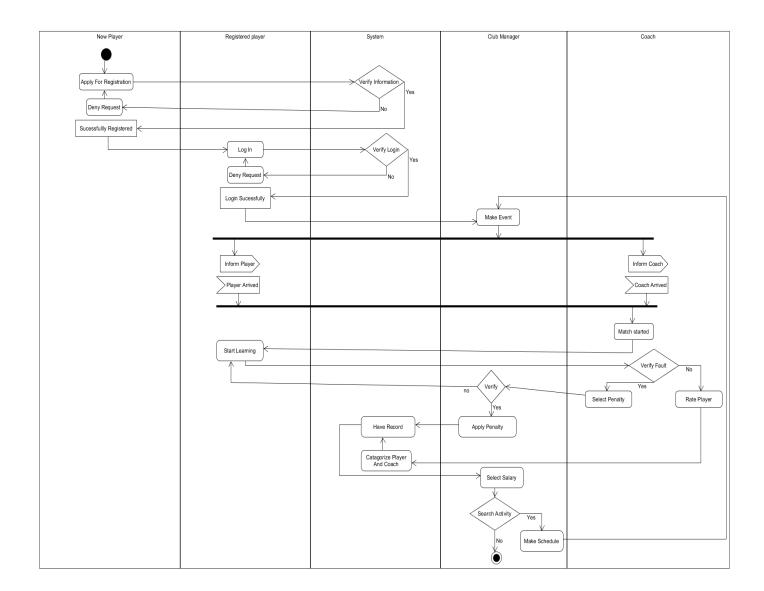
- -S_ID: String = none{assigned by system}
- Name: String = Blank
- -sportsType: String = Blank
- +Indoor: Boolean= false;
- +outdoor: Boolean= false;
- +getName():String
- +setName(name:String)
- +getsportsType():String
- +setsportsType(name:String)



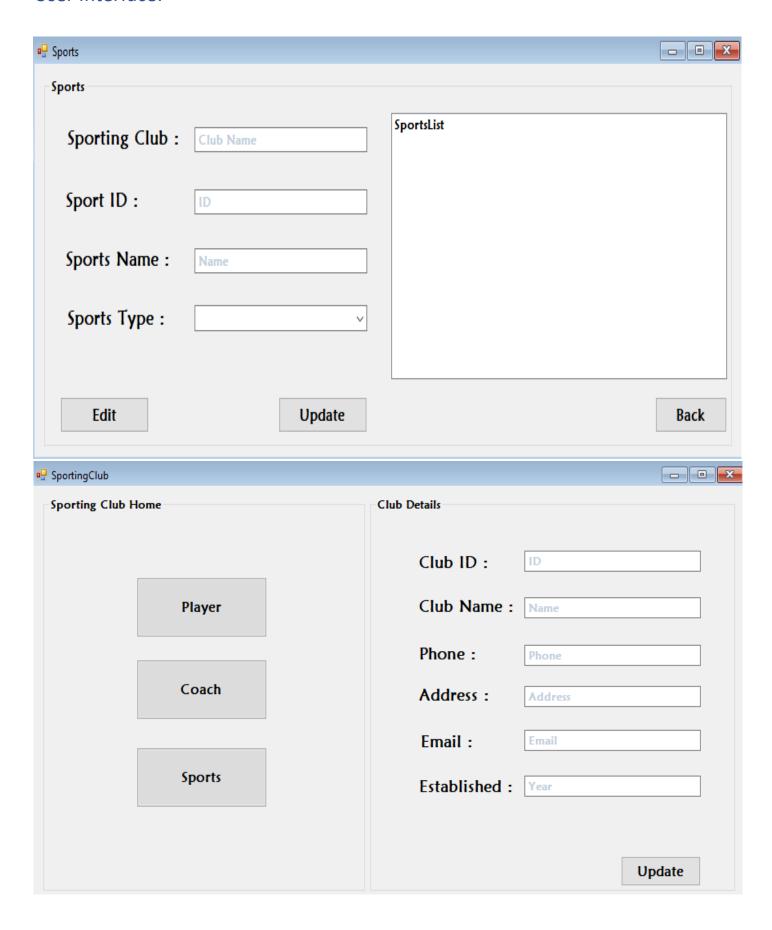
Use Case Diagram:

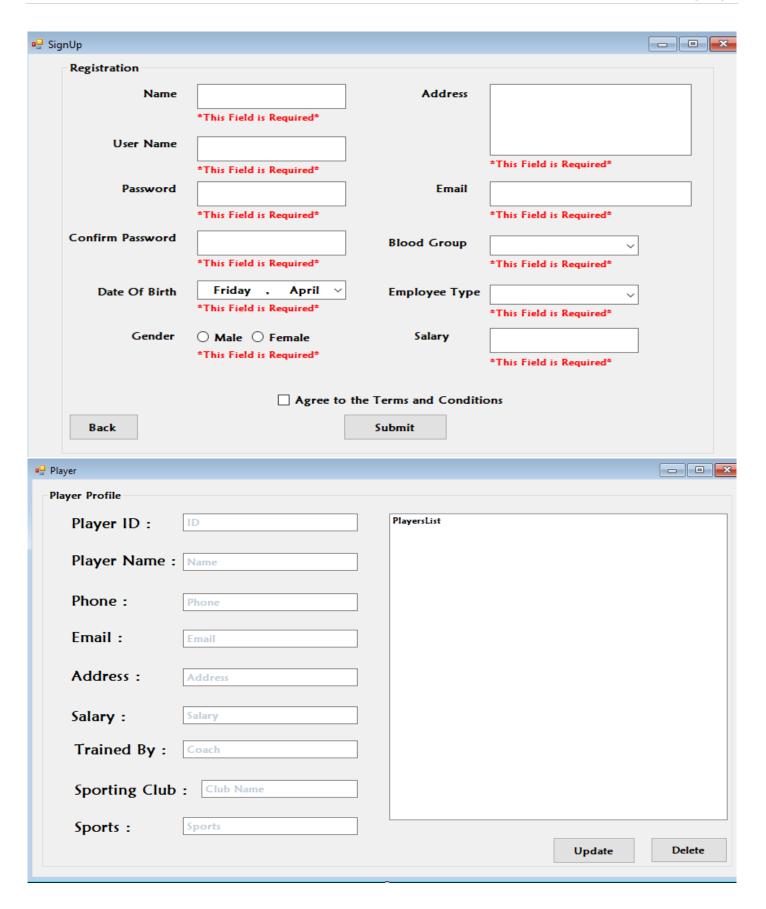


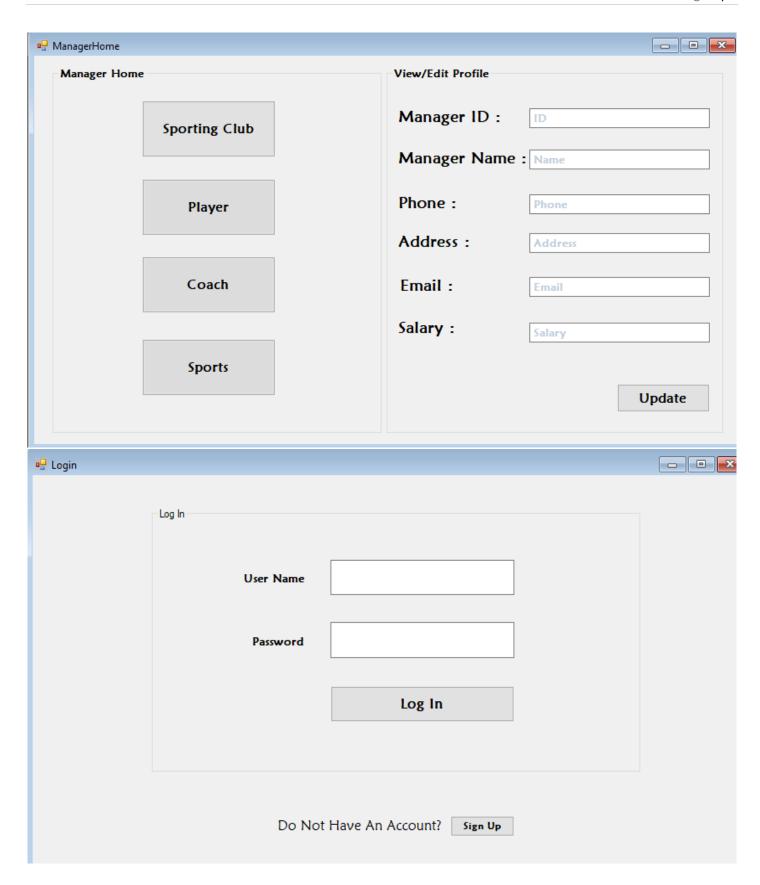
Activity Diagram:

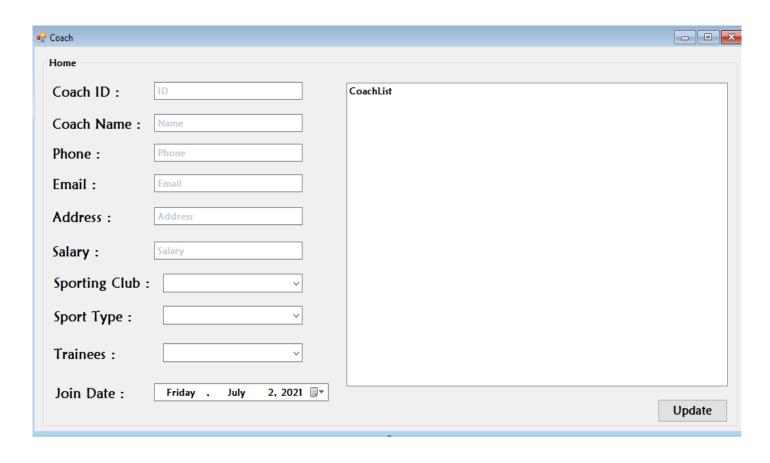


User Interface:





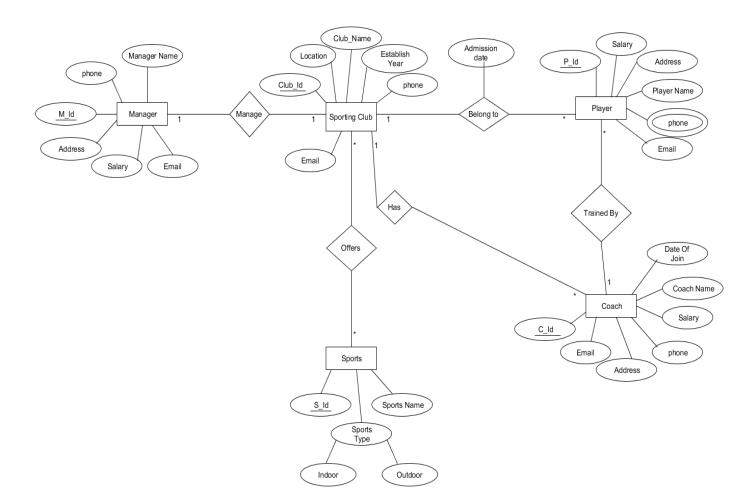




Scenario:

In a sporting club management system, a lot of players belongs to a sporting club. Here many players can join one sporting club. A sporting club is identified by club name, unique club ID, Establish year & Phone number. In sporting club a player is identified by Player name, unique Player ID, Address and Phone number. There may be a multiple phone numbers for one player. The club has one manager to manage all the activities with unique manager id, manager name, phone number, email, address and salary. A manager can manage a club at a time. The club offers many sports. Sports are identified by Sports name, unique sports id, Sports type which will be partitioned by indoor and outdoor types. Many players can be trained by one coach and many coach can also join in one sporting club. If a coach wants to join in a sporting club he will issued with coach ID, coach address, coach name, phone number, email, salary and join date.

ER Diagram:



Normalization:

Manage:

UNF:

Manage (Club ID, Establish Year, Club_Name, Location, Phone, Email,, MID, M_name, M_Address, M_Phone, M_Email, M_salary)

1 NF:

There is no multi valued attribute. Relation already in 1NF.

 Club ID, Establish Year , Club_Name , Location , Phone , Email, M ID, M _ name , M _Address , M Phone , M Email, M salary.

2 NF:

- 1. Club ID, Establish Year, Club Name, Location, Phone, Email
- 2. MID, M_name, M_Address, M_Phone, M_Email, M_salary

3 NF:

There is no transitive dependency. Relation already in 3NF.

- 1. Club ID, Establish Year, Club Name, Location, Phone, Email
- 2. MID, M_name, M_Address, M_Phone, M_Email, M_salary

Table Creation:

- 1. Club ID, Establish Year, Club Name, Location, Phone, Email
- 2. MID, M_name, M_Address, M_Phone, M_Email, M_salary, Club ID

Belongs to:

UNF:

Belongs to <u>(Club ID</u>, Establish Year, Club Name, Location, Phone, Email, Admission_Date, <u>P ID</u>, P_name, P_ Address, P_Phone, P_Salary, P_Email)

1 NF:

P Phone is a multi valued attribute.

1. <u>Club ID</u>, Establish Year, Club Name, Location, Phone, Email, Admission_Date, P ID, P name, P Address, P Phone, P Salary, P Email



2 NF:

- 1. <u>Club ID</u>, Location, Club Name, Phone, Establish Year, Email.
- 2. PID, P Phone, P_Name, P_Address, P_Email, P_Salary
- 3. Club ID , P ID , Admission Date

3 NF:

There is no transitive dependency. Relation already in 3NF.

- 1. Club ID, Location, Club Name, Establish Year, Phone, Email.
- 2. PID, PPhone, P_Name, P_Address, P_Email, P_Salary.
- 3. <u>Club ID</u>, <u>P ID</u>, Admission_Date

Table Creation:

- 1. Club ID, Location, Club Name, Establish Year, Phone, Email.
- 2. PID, PPhone, P_Name, P_Address, P_Email, P_Salary, Club_ID.
- 3. Club ID, PID, Admission Date

Trained By:

U NF:

Trained By(PID, P_Name, P_Address, P_Phone, P_Email, P_Salary, C_ID, C_Name, C_Salary, C_Address, C_Phone, C_Email, Date of join)

1 NF:

P_Phone is a multi valued attribute.

1. <u>P ID</u>, P_Name ,P_ Address , P_Phone , P_Email, P_Salary ,<u>C ID</u>, C_Name , C_Salary , C_Address, C_Phone, C_Email, Date of join.

2 NF:

- 1. PID, PPhone, P_Name, P_Address, P_Phone, P_Email, P_Salary.
- 2. <u>C ID</u>, , C_Name, C_Salary, C_Address, C_Phone, C_Email, Date of join.

3 NF:

There is no transitive dependency. Relation already in 3NF.



- 1. PID, PPhone, P_Name, P_Address, P_Phone, P_Email, P_Salary.
- 3. CID, C Name, C Salary, C Address, C Phone, C Email, Date of join.

Table Creation:

- 1. PID, PPhone, P Name, P Address, P Phone, P Email, P Salary, C_ID.
- 4. <u>C ID</u>, C_Name, C_Salary, C_Address, C_Phone, C_Email, Date of join.

Has:

UNF:

Has(<u>Club ID</u>, Location, Club_Name, Phone, Eshtablish Year, Email, <u>C ID</u>, C_Name, C_Salary, C_Address,C_Phone, C_Email, Date of join)

1 NF:

There is no multi valued attribute. Relation already in 1NF

 Club ID , C ID , Location , Club_Name , Phone , Eshtablish Year, Email, C_Name, C_Salary , C Address, C Phone, C Email, Date of join,

2 NF:

- 1. Club ID , Location , Club Name , Phone , Eshtablish Year, Email.
- 2. <u>C ID</u>, C_Name, C_Salary, C_Address,C_Phone, C_Email, Date of join.

3 NF:

There is no transitive dependency. Relation already in 3NF.

- 1. Club ID, Location, Club Name, Phone, Eshtablish Year, Email.
- 2. <u>C ID</u>, C_Name, C_Salary, C_Address,C_Phone, C_Email, Date of join.

Table Creation:

- 1. <u>Club ID</u>, Location, Club_Name, Phone, Eshtablish Year, Email.
- 2. <u>C ID</u>, C_Name, C_Salary, C_Address,C_Phone, C_Email, Date of join, **Club_ID**.



Offers:

U NF:

Offers(Club ID , Phone , Email, Club Name , Establish Year , Location , SID , Sports Name , Indoor , Outdoor)

1 NF:

There is no multi valued attribute. Relation already in 1NF.

1. <u>Club ID</u>, Phone, Email, Club_Name, Establish Year, Location, <u>S ID</u>, Sports Name, Indoor, Outdoor.

2 NF:

- 1. Club ID , Establish Year , Club Name , Location , Phone , Email
- 2. SID, Sports Name, Indoor, Outdoor.

3 NF:

There is no transitive dependency. Relation already in 3NF.

- 1. Club ID , Establish Year , Club_Name , Location , Phone , Email
- 2. SID, Sports Name, Indoor, Outdoor.

Table Creation:

- 1. Club ID, Establish Year, Club Name, Location, Phone, Email
- 2. S ID, Sports Name, Indoor, Outdoor.
- 3. Club_ID, S_ID

Temporary Tables:

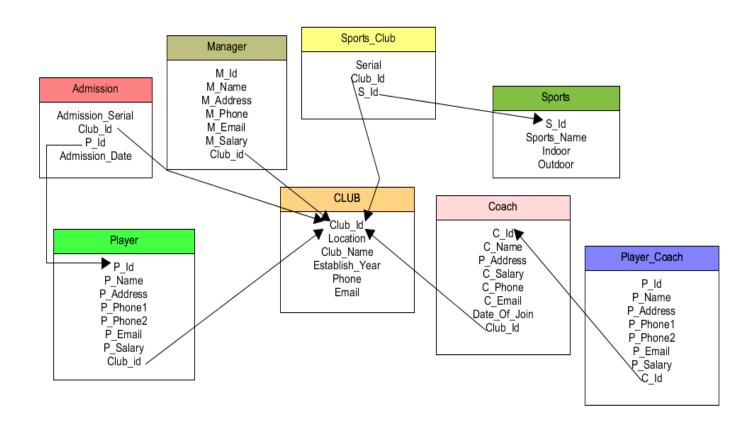
- 1. Club ID, Establish Year, Club Name, Location, Phone, Email
- 2. MID, M name, M Address, M Phone, M Email, M salary, Club ID
- 3. Club ID , P ID , Admission_Date
- 4. Club ID , Location , Club Name, Establish Year, Phone , Email.
- 5. PID, PPhone, P_Name, P_Address, P_Email, P_Salary, Club_ID.
- 6. PID, P Name, P Address, P Phone, P Email, P Salary, C ID.
- 7. C ID, C Name, C Salary, C Address, C Phone, C Email, Date of join.
- 8. <u>Club ID</u>, Location, Club Name, Phone, Eshtablish Year, Email.
- 9. <u>C ID</u>, C_Name, C_Salary, C_Address,C_Phone, C_Email, Date of join, **Club_ID**.
- 10. Club ID, Establish Year, Club Name, Location, Phone, Email
- 11. S ID, Sports Name, Indoor, Outdoor.
- 12. Club_ID, S_ID



Final Table:

- 1. MID, M_name, M_Address, M_Phone, M_Email, M_salary, Club ID
- 2. <u>Club ID</u>, Location, Club Name, Establish Year, Phone, Email.
- 3. PID, P Phone1, P Phone2, P Name, P Address, P Email, P Salary, Club_ID.
- 4. PID, P_Name, P_Address, P_Phone1, P_Phone2, P_Email, P_Salary, C_ID.
- 5. <u>C ID</u>, C Name, C Salary, C Address, C Phone, C Email, Date of join, **Club_ID**.
- 6. <u>S ID</u>, Sports_Name, Indoor, Outdoor.
- 7. Serial, Club_ID, S_ID
- 8. Admission Serial, Club ID, PID, Admission Date

Schema diagram:





Sequence Creation:

```
User: SPORTINGCLUBMANAGEMENT
Home > SQL > SQL Commands
 ✓ Autocommit Display 10
     CREATE SEQUENCE Manager seq
     INCREMENT BY 1
     START WITH 1
     MAXVALUE 10
     NOCACHE
     NOCYCLE;
     CREATE SEQUENCE club seq
     INCREMENT BY 10
     START WITH 100
     MAXVALUE 500
     NOCACHE
     NOCYCLE;
     CREATE SEQUENCE palyer seq
     INCREMENT BY 9
     START WITH 20
     MAXVALUE 100
     NOCACHE
     NOCYCLE;
Results Explain Describe Saved SQL History
```

Enter SQL statement or PL/SQL command and click Run to see the results.

Table Creation:

Enter SQL statement or PL/SQL command and click Run to see the results.

ORACLE Database Express Edition User: SPORTINGCLUBMANAGEMENT Home > SQL > SQL Commands ✓ Autocommit Display 10 CREATE TABLE CLUB (CLUB ID NUMBER(10) CONSTRAINT PK club PRIMARY KEY, CLUB_NAME VARCHAR2(25), LOCATION VARCHAR2(50) ESTABLISH YEAR NUMBER(10), PHONE NUMBER(20), EMAIL VARCHAR2(50)); CREATE TABLE MANAGER (M_ID NUMBER(10) CONSTRAINT PK man PRIMARY KEY, M NAME VARCHAR2(25) M_ADDRESS VARCHAR2(50), M_PHONE NUMBER(20), M_SALARY NUMBER(20), EMAIL VARCHAR2(50), CLUB_ID NUMBER(10) CONSTRAINT FK man REFERENCES CLUB(CLUB_ID)); CREATE TABLE PLAYER (P_ID NUMBER(10) CONSTRAINT PK_player PRIMARY KEY, P NAME VARCHAR2(25) P_ADDRESS VARCHAR2(50), P_PHONE1 NUMBER(20), P_PHONE2 NUMBER(20), P_SALARY NUMBER(20), P EMAIL VARCHAR2(50), CLUB_ID NUMBER(10) CONSTRAINT FK_player REFERENCES CLUB(CLUB_ID)); Results Explain Describe Saved SQL History DI /001 ORACLE Database Express Edition User: SPORTINGCLUBMANAGEMENT Home > SQL > SQL Commands ✓ Autocommit Display 10 CREATE TABLE COACH (C_ID NUMBER(10) CONSTRAINT PK coach PRIMARY KEY, C_NAME VARCHAR2(25), C_ADDRESS VARCHAR2(50), C_PHONE NUMBER(20), C_SALARY NUMBER(20) C_EMAIL VARCHAR2(50), DATE_OF_JOIN DATE, CLUB_ID NUMBER(10) CONSTRAINT FK coach REFERENCES CLUB(CLUB_ID)); CREATE TABLE PLAYER COACH (P_ID NUMBER(10) CONSTRAINT PK_coaPla PRIMARY KEY, P NAME VARCHAR2(25) P_ADDRESS VARCHAR2(50), P_PHONE1_NUMBER(20), P PHONE2 NUMBER(20) P SALARY NUMBER(20) P EMAIL VARCHAR2(50) C_ID NUMBER(10) CONSTRAINT FK_coapla REFERENCES COACH(C_ID));

Results Explain Describe Saved SQL History

SPORTS_NAME VARCHAR2(25), INDOOR VARCHAR2(50), OUTDOOR VARCHAR2(20));

CREATE TABLE SPORTS



(S_ID NUMBER(10) CONSTRAINT PK sports PRIMARY KEY,

ORACLE' Database Express Edition

User: SPORTINGCLUBMANAGEMENT
Home > SQL > SQL Commands

CREATE TABLE SPORTS_CLUB

(Serial NUMBER(10) CONSTRAINT PK_SpC12 PRIMARY KEY,
S_ID NUMBER(10) CONSTRAINT FK_clubid3 REFERENCES SPORTS(S_ID),
CLUB_ID NUMBER(10) CONSTRAINT FK_clubid2 REFERENCES CLUB(CLUB_ID));

CREATE TABLE ADMISSION

(Admission Serial NUMBER(10) CONSTRAINT PK_Admid PRIMARY KEY,
CLUB_ID NUMBER(10) CONSTRAINT FK_clubid REFERENCES CLUB(CLUB_ID),
P_ID NUMBER(10) CONSTRAINT FK_PlayerId REFERENCES Player(P_ID),

Results Explain Describe Saved SQL History

Admission Date DATE);

Enter SQL statement or PL/SQL command and click Run to see the results.

Index Creation:

User: SPORTINGCLUBMANAGEMENT Home > SQL > SQL Commands ✓ Autocommit Display 10 CREATE INDEX <u>Club_index</u>
ON CLUB(CLUB_ID,CLUB_NAME,EMAIL); CREATE INDEX Manager index ON MANAGER(M_ID,M_NAME,M_SALARY,EMAIL); CREATE INDEX Player index ON PLAYER(P_ID,P_NAME,P_EMAIL); CREATE INDEX Coach index ON COACH(C_ID,C_NAME,DATE_OF_JOIN, C_EMAIL,CLUB_ID);
CREATE INDEX CoachPlayer index ON PLAYER_COACH(P_ID,P_NAME,P_EMAIL,C_ID); CREATE INDEX Sports_index ON SPORTS(S_ID, SPORTS_NAME); CREATE INDEX Admission_index ON ADMISSION(CLUB ID.P ID.Admission Serial);

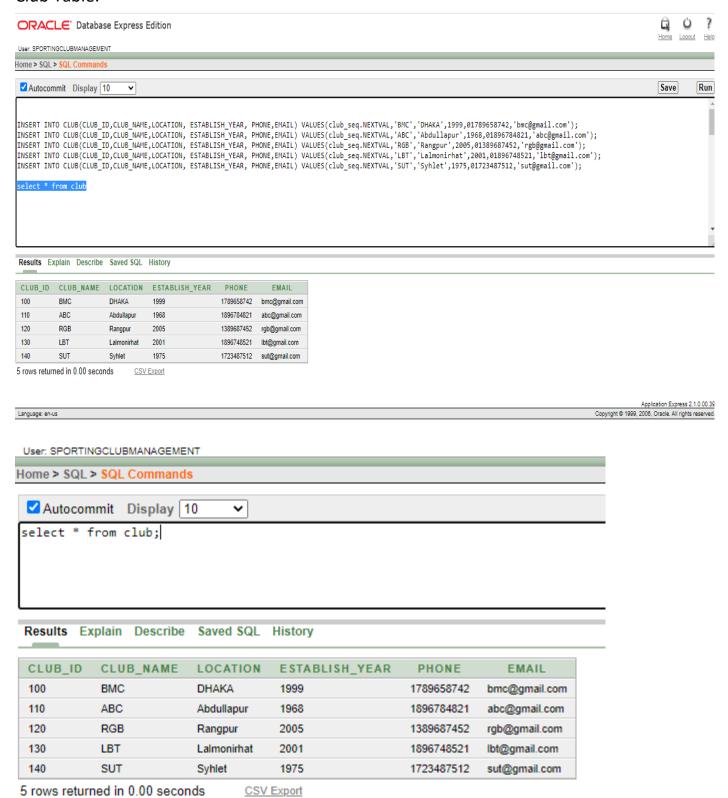
Results Explain Describe Saved SQL History

Enter SQL statement or PL/SQL command and click Run to see the results.



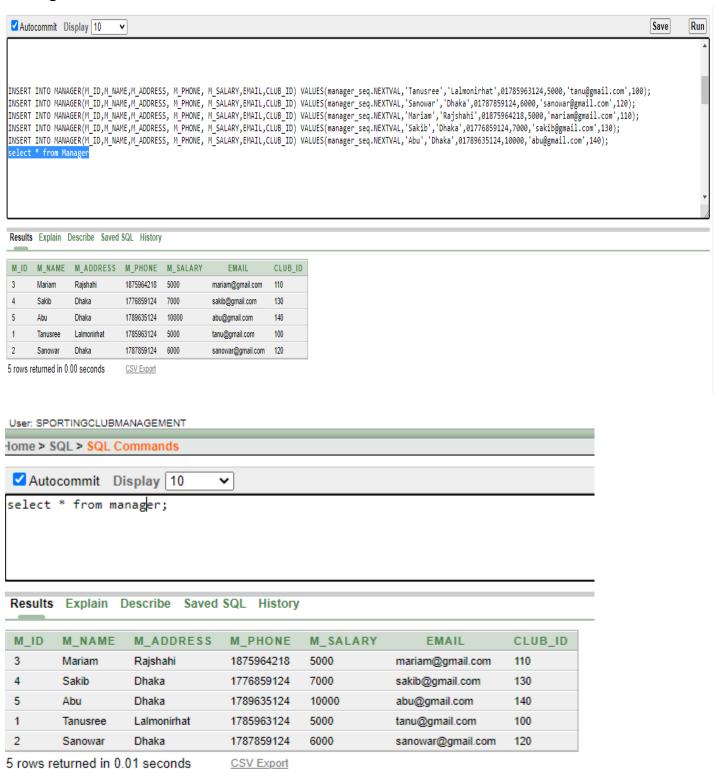
Data Insertion:

Club Table:

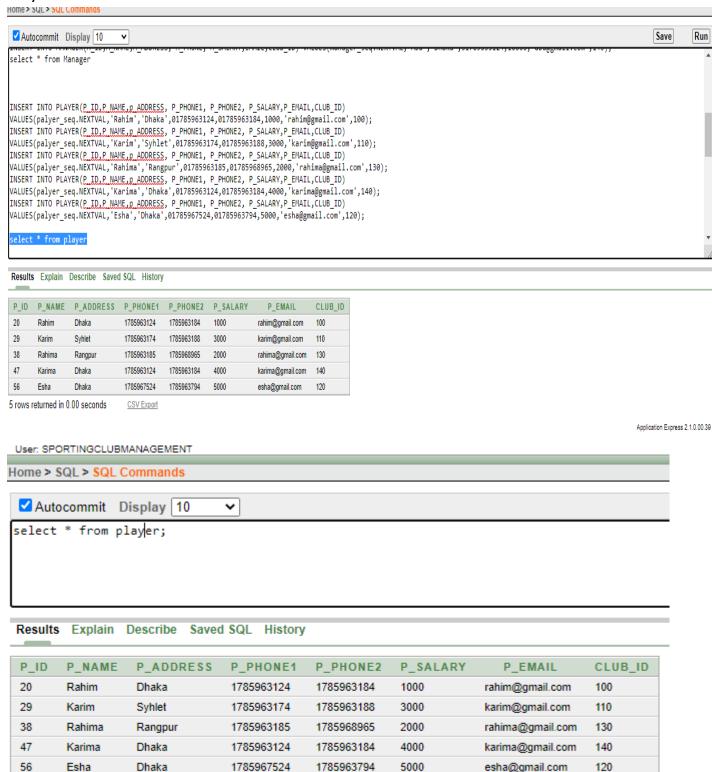




Manager Table:



Player Table:

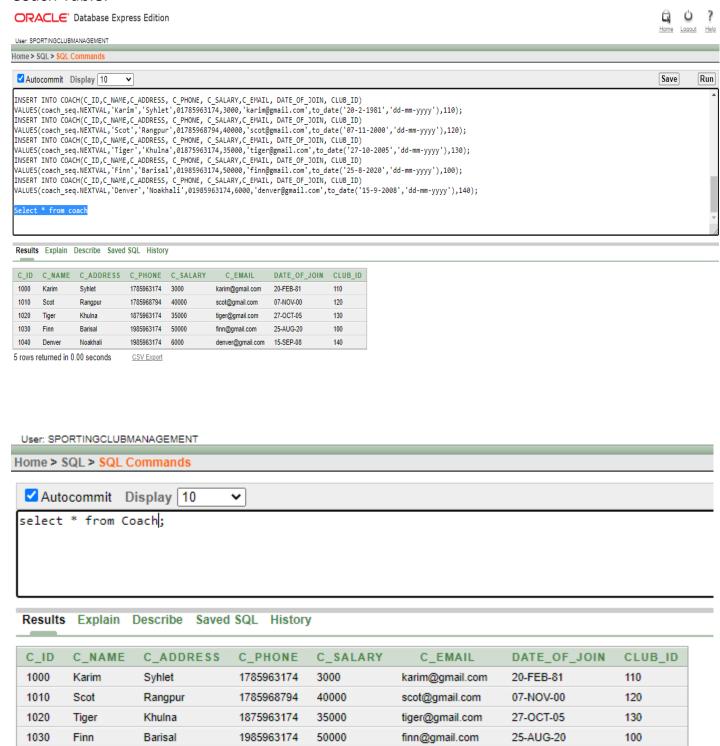




5 rows returned in 0.00 seconds

CSV Export

Coach Table:



5 rows returned in 0.00 seconds

Noakhali

Denver

1985963174 <u>CSV Export</u> 6000

denver@gmail.com

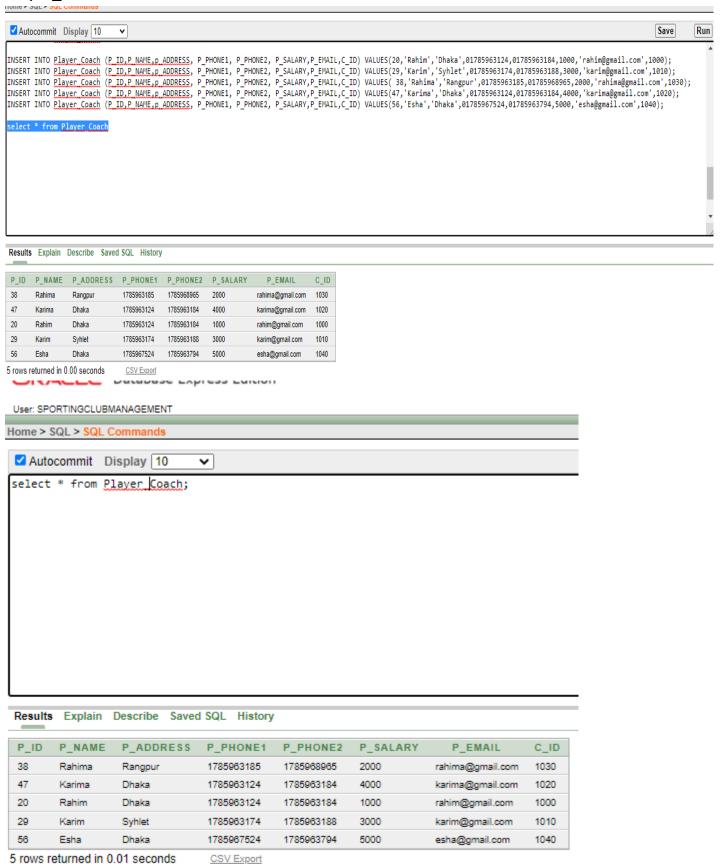
15-SEP-08

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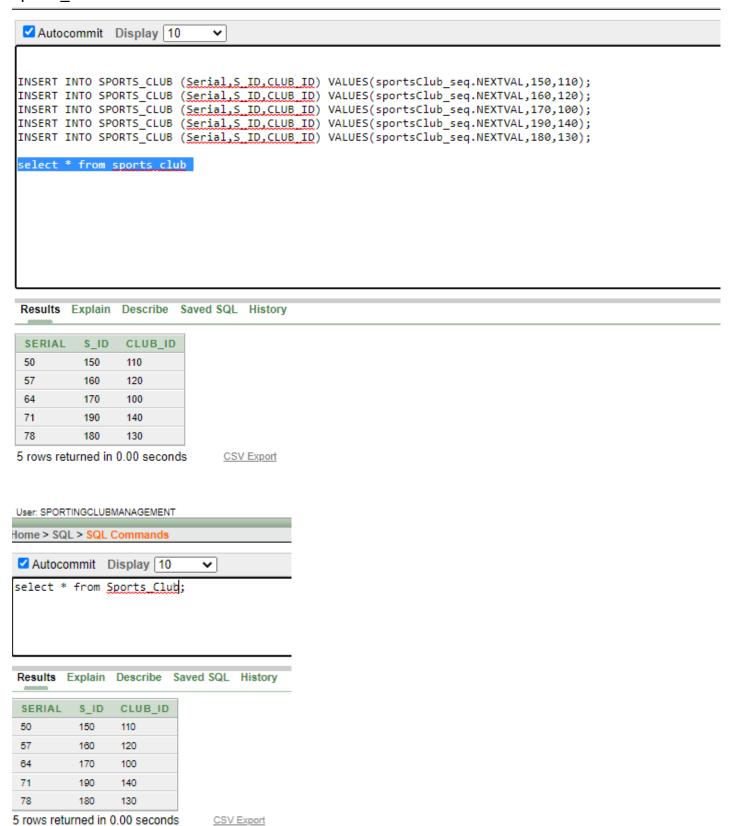
1040

Player_Coach Table:



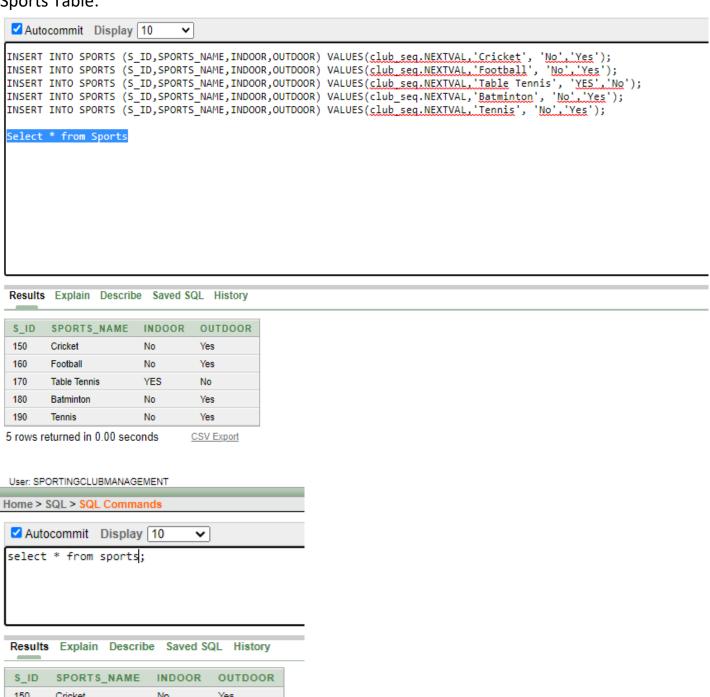


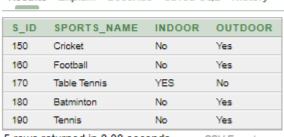
Sports_Club Table:





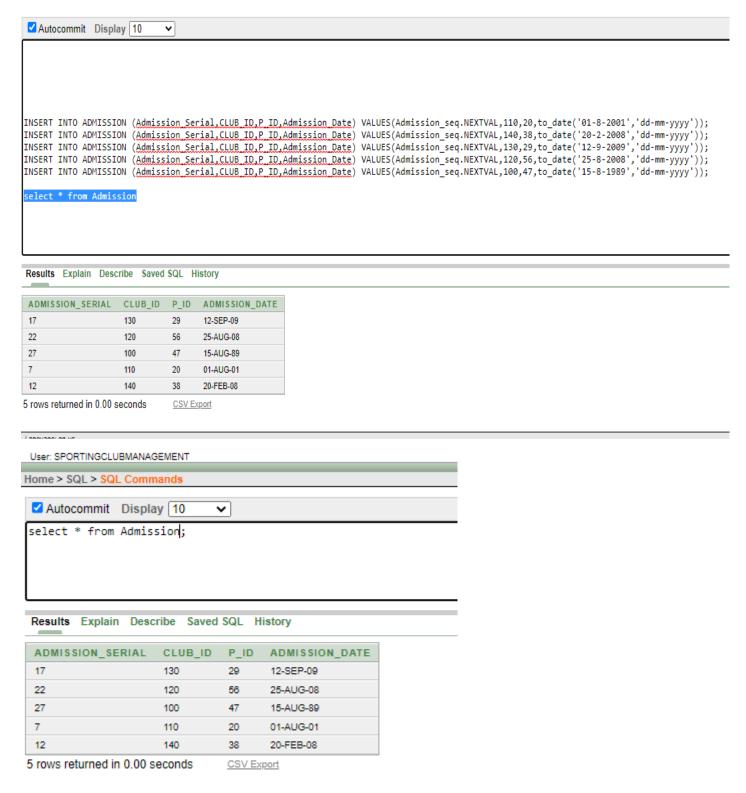
Sports Table:





5 rows returned in 0.00 seconds CSV Export

Admission table:



Query of (Table, Sequence, Index, Data Insertion):

create user SportingClubManagement identified by manager; grant connect, resource, unlimited tablespace to SportingClubManagement; ALTER USER SportingClubManagement DEFAULT TABLESPACE USERS; ALTER USER SportingClubManagement TEMPORARY TABLESPACE TEMP;

Creating Sequences:

Sequence for manager table:

CREATE SEQUENCE Manager_seq
INCREMENT BY 1
START WITH 1
MAXVALUE 10
NOCACHE
NOCYCLE;

Sequence for Club table:

CREATE SEQUENCE club_seq
INCREMENT BY 10
START WITH 100
MAXVALUE 500
NOCACHE
NOCYCLE;

Sequence for Player table:

CREATE SEQUENCE palyer_seq
INCREMENT BY 9
START WITH 20
MAXVALUE 100
NOCACHE
NOCYCLE;

Sequence for Coach table:

CREATE SEQUENCE coach_seq
INCREMENT BY 10
START WITH 1000
MAXVALUE 2000



```
NOCACHE
NOCYCLE;
```

Sequence for Sports table:

```
CREATE SEQUENCE sports_seq
INCREMENT BY 2
START WITH 10
MAXVALUE 100
NOCACHE
NOCYCLE;
```

Sequence for SPORTS_CLUB table:

```
CREATE SEQUENCE sportsClub_seq
INCREMENT BY 7
START WITH 50
MAXVALUE 200
NOCACHE
NOCYCLE;
```

Sequence for Admission table:

```
CREATE SEQUENCE Admission_seq
INCREMENT BY 5
START WITH 7
MAXVALUE 100
NOCACHE
NOCYCLE;
```

2. CREATE TABLE CLUB



```
Creating Index of Club Table:

CREATE INDEX Club_index

ON CLUB(CLUB ID,CLUB NAME,EMAIL);
```

Inserting data to CLUB table:

INSERT INTO CLUB(CLUB_ID,CLUB_NAME,LOCATION, ESTABLISH_YEAR, PHONE,EMAIL) VALUES(club_seq.NEXTVAL,'BMC','DHAKA',1999,01789658742,'bmc@gmail.com'); INSERT INTO CLUB(CLUB_ID,CLUB_NAME,LOCATION, ESTABLISH_YEAR, PHONE,EMAIL) VALUES(club_seq.NEXTVAL,'ABC','Abdullapur',1968,01896784821,'abc@gmail.com'); INSERT INTO CLUB(CLUB_ID,CLUB_NAME,LOCATION, ESTABLISH_YEAR, PHONE,EMAIL) VALUES(club_seq.NEXTVAL,'RGB','Rangpur',2005,01389687452,'rgb@gmail.com'); INSERT INTO CLUB(CLUB_ID,CLUB_NAME,LOCATION, ESTABLISH_YEAR, PHONE,EMAIL) VALUES(club_seq.NEXTVAL,'LBT','Lalmonirhat',2001,01896748521,'lbt@gmail.com'); INSERT INTO CLUB(CLUB_ID,CLUB_NAME,LOCATION, ESTABLISH_YEAR, PHONE,EMAIL) VALUES(club_seq.NEXTVAL,'SUT','Syhlet',1975,01723487512,'sut@gmail.com');

1.CREATE TABLE MANAGER

Creating Index of Manager Table:

CREATE INDEX Manager_index
ON MANAGER(M_ID,M_NAME,M_SALARY,EMAIL);

Inserting data to MANAGER table:

INSERT INTO MANAGER(M_ID,M_NAME,M_ADDRESS, M_PHONE, M_SALARY,EMAIL,CLUB_ID) VALUES(manager_seq.NEXTVAL,'Tanusree','Lalmonirhat',01785963124,5000,'tanu@gmail.com',100); INSERT INTO MANAGER(M_ID,M_NAME,M_ADDRESS, M_PHONE, M_SALARY,EMAIL,CLUB_ID) VALUES(manager_seq.NEXTVAL,'Sanowar','Dhaka',01787859124,6000,'sano@gmail.com',120); INSERT INTO MANAGER(M_ID,M_NAME,M_ADDRESS, M_PHONE, M_SALARY,EMAIL,CLUB_ID) VALUES(manager_seq.NEXTVAL,'Mariam','Rajshahi',01875964218,5000,'mari@gmail.com',110);



```
INSERT INTO MANAGER(M ID,M NAME,M ADDRESS, M PHONE, M SALARY,EMAIL,CLUB ID)
VALUES(manager seq.NEXTVAL, 'Sakib', 'Dhaka', 01776859124, 7000, 'saki@gmail.com', 130);
INSERT INTO MANAGER(M ID,M NAME,M ADDRESS, M PHONE, M SALARY,EMAIL,CLUB ID)
VALUES(manager_seq.NEXTVAL, 'Abu', 'Dhaka', 01789635124, 10000, 'abu@gmail.com', 140);
3.CREATE TABLE PLAYER
   (P ID NUMBER(10) CONSTRAINT PK_player PRIMARY KEY,
      P NAME VARCHAR2(25),
      P ADDRESS VARCHAR2(50),
    P PHONE1 NUMBER(20),
    P PHONE2 NUMBER(20),
    P SALARY NUMBER(20),
    P EMAIL VARCHAR2(50),
    CLUB ID NUMBER(10) CONSTRAINT FK player REFERENCES CLUB(CLUB ID));
Creating Index of Club Table:
   CREATE INDEX Player index
   ON PLAYER(P_ID,P_NAME,P_EMAIL);
Inserting data to Player table:
INSERT INTO PLAYER(P ID, P NAME, p ADDRESS, P PHONE1, P PHONE2, P SALARY, P EMAIL, CLUB ID)
VALUES(palyer_seq.NEXTVAL,'Rahim','Dhaka',01785963124,01785963184,1000,'rahim@gmail.com',100);
INSERT INTO PLAYER(P ID, P NAME, p ADDRESS, P PHONE1, P PHONE2, P SALARY, P EMAIL, CLUB ID)
VALUES(palyer_seq.NEXTVAL,'Karim','Syhlet',01785963174,01785963188,3000,'karim@gmail.com',110);
INSERT INTO PLAYER(P ID, P NAME, p ADDRESS, P PHONE1, P PHONE2, P SALARY, P EMAIL, CLUB ID)
VALUES(palyer seq.NEXTVAL,'Rahima','Rangpur',01785963185,01785968965,2000,'rahima@gmail.com',130
);
INSERT INTO PLAYER(P ID, P NAME, p ADDRESS, P PHONE1, P PHONE2, P SALARY, P EMAIL, CLUB ID)
VALUES(palyer_seq.NEXTVAL, 'Karima', 'Dhaka', 01785963124, 01785963184, 4000, 'karima@gmail.com', 140);
INSERT INTO PLAYER(P_ID,P_NAME,p_ADDRESS, P_PHONE1, P_PHONE2, P_SALARY,P_EMAIL,CLUB_ID)
VALUES(palyer seq.NEXTVAL, 'Esha', 'Dhaka', 01785967524, 01785963794, 5000, 'esha@gmail.com', 120);
5.CREATE TABLE COACH
   (C ID NUMBER(10) CONSTRAINT PK coach PRIMARY KEY,
      C_NAME VARCHAR2(25),
      C ADDRESS VARCHAR2(50),
   C PHONE NUMBER(20),
```



C SALARY NUMBER(20),

```
C EMAIL VARCHAR2(50),
    DATE OF JOIN DATE,
    CLUB ID NUMBER(10) CONSTRAINT FK coach REFERENCES CLUB(CLUB ID));
Creating Index of Coach Table:
   CREATE INDEX Coach index
   ON COACH(C_ID,C_NAME,DATE_OF_JOIN, C_EMAIL,CLUB_ID);
Insertin data to Coach table
INSERT INTO COACH(C ID,C NAME,C ADDRESS, C PHONE, C SALARY,C EMAIL, DATE OF JOIN, CLUB ID)
VALUES(coach seq.NEXTVAL,'Adam','Syhlet',01785963174,30000,'karim@gmail.com',to date('20-2-
1981','dd-mm-yyyy'),110);
INSERT INTO COACH(C ID,C NAME,C ADDRESS, C PHONE, C SALARY,C EMAIL, DATE OF JOIN, CLUB ID)
VALUES(coach seq.NEXTVAL,'Scot','Rangpur',01785968794,40000,'scot@gmail.com',to date('07-11-
2000','dd-mm-yyyy'),120);
INSERT INTO COACH(C_ID,C_NAME,C_ADDRESS, C_PHONE, C_SALARY,C_EMAIL, DATE_OF_JOIN, CLUB_ID)
VALUES(coach seq.NEXTVAL, 'Tiger', 'Khulna', 01875963174, 35000, 'tiger@gmail.com', to_date('27-10-
2005','dd-mm-yyyy'),130);
INSERT INTO COACH(C_ID,C_NAME,C_ADDRESS, C_PHONE, C_SALARY,C_EMAIL, DATE_OF_JOIN, CLUB_ID)
VALUES(coach seq.NEXTVAL,'Finn','Barisal',01985963174,50000,'finn@gmail.com',to date('25-8-2020','dd-
mm-yyyy'),100);
INSERT INTO COACH(C ID,C NAME,C ADDRESS, C PHONE, C SALARY,C EMAIL, DATE OF JOIN, CLUB ID)
VALUES(coach seq.NEXTVAL,'Denver','Noakhali',01985963174,6000,'denver@gmail.com',to date('15-9-
2008','dd-mm-yyyy'),140);
4.CREATE TABLE PLAYER_COACH
   (P ID NUMBER(10) CONSTRAINT PK coaPla PRIMARY KEY,
      P NAME VARCHAR2(25),
      P ADDRESS VARCHAR2(50),
    P PHONE1 NUMBER(20),
    P PHONE2 NUMBER(20),
    P SALARY NUMBER(20),
    P EMAIL VARCHAR2(50),
    C_ID NUMBER(10) CONSTRAINT FK_coapla REFERENCES COACH(C_ID));
Creating Index of Player Coach Table:
   CREATE INDEX CoachPlayer index
   ON PLAYER_COACH(P_ID,P_NAME,P_EMAIL,C_ID);
Inserting data to Player Coach table:
```



```
INSERT INTO Player Coach (P ID, P NAME, p ADDRESS, P PHONE1, P PHONE2, P SALARY, P EMAIL, C ID)
VALUES(20, 'Rahim', 'Dhaka', 01785963124, 01785963184, 1000, 'rahim@gmail.com', 1000);
INSERT INTO Player Coach (P ID, P NAME, p ADDRESS, P PHONE1, P PHONE2, P SALARY, P EMAIL, C ID)
VALUES(29,'Karim','Syhlet',01785963174,01785963188,3000,'karim@gmail.com',1010);
INSERT INTO Player Coach (P ID, P NAME, p ADDRESS, P PHONE1, P PHONE2, P SALARY, P EMAIL, C ID)
VALUES( 38, 'Rahima', 'Rangpur', 01785963185, 01785968965, 2000, 'rahima@gmail.com', 1030);
INSERT INTO Player Coach (P ID, P NAME, p ADDRESS, P PHONE1, P PHONE2, P SALARY, P EMAIL, C ID)
VALUES(47, 'Karima', 'Dhaka', 01785963124, 01785963184, 4000, 'karima@gmail.com', 1020);
INSERT INTO Player Coach (P ID,P NAME,p ADDRESS, P PHONE1, P PHONE2, P SALARY,P EMAIL,C ID)
VALUES(56, 'Esha', 'Dhaka', 01785967524, 01785963794, 5000, 'esha@gmail.com', 1040);
6.CREATE TABLE SPORTS
   (S ID NUMBER(10) CONSTRAINT PK sports PRIMARY KEY,
      SPORTS NAME VARCHAR2(25),
      INDOOR VARCHAR2(50),
    OUTDOOR VARCHAR2(20));
Creating Index of Sports Table:
   CREATE INDEX Sports index
   ON SPORTS(S ID, SPORTS NAME);
Inserting data to Player Coach table:
INSERT INTO SPORTS (S. ID, SPORTS NAME, INDOOR, OUTDOOR) VALUES (club seq. NEXTVAL, 'Cricket',
'No','Yes');
INSERT INTO SPORTS (S. ID, SPORTS NAME, INDOOR, OUTDOOR) VALUES (club seq. NEXTVAL, 'Football',
'No','Yes');
INSERT INTO SPORTS (S. ID, SPORTS NAME, INDOOR, OUTDOOR) VALUES (club seq. NEXTVAL, 'Table Tennis',
'YES','No');
INSERT INTO SPORTS (S. ID, SPORTS NAME, INDOOR, OUTDOOR) VALUES (club seq. NEXTVAL, 'Batminton',
'No','Yes');
INSERT INTO SPORTS (S ID, SPORTS NAME, INDOOR, OUTDOOR) VALUES (club seq. NEXTVAL, 'Tennis',
'No','Yes');
7. CREATE TABLE SPORTS CLUB
   (Serial NUMBER(10) CONSTRAINT PK_SpCl2 PRIMARY KEY,
    S ID NUMBER(10) CONSTRAINT FK clubid3 REFERENCES SPORTS(S ID),
    CLUB ID NUMBER(10) CONSTRAINT FK clubid2 REFERENCES CLUB(CLUB ID));
```



Inserting data to SPORTS_CLUB table:

```
INSERT INTO SPORTS_CLUB (Serial,S_ID,CLUB_ID) VALUES(sportsClub_seq.NEXTVAL,150,110); INSERT INTO SPORTS_CLUB (Serial,S_ID,CLUB_ID) VALUES(sportsClub_seq.NEXTVAL,160,120); INSERT INTO SPORTS_CLUB (Serial,S_ID,CLUB_ID) VALUES(sportsClub_seq.NEXTVAL,170,100); INSERT INTO SPORTS_CLUB (Serial,S_ID,CLUB_ID) VALUES(sportsClub_seq.NEXTVAL,190,140); INSERT INTO SPORTS_CLUB (Serial,S_ID,CLUB_ID) VALUES(sportsClub_seq.NEXTVAL,180,130);
```

8. CREATE TABLE ADMISSION

(Admission_Serial NUMBER(10) CONSTRAINT PK_Admid PRIMARY KEY, CLUB_ID NUMBER(10) CONSTRAINT FK_clubid REFERENCES CLUB(CLUB_ID), P_ID NUMBER(10) CONSTRAINT FK_PlayerId REFERENCES Player(P_ID), Admission Date DATE);

Creating Index of ADMISSION Table:

CREATE INDEX Admission_index
ON ADMISSION(CLUB ID,P ID,Admission Serial);

Inserting data to ADMISSION table:

INSERT INTO ADMISSION (Admission_Serial,CLUB_ID,P_ID,Admission_Date) VALUES(Admission_seq.NEXTVAL,110,20,to_date('01-8-2001','dd-mm-yyyy')); INSERT INTO ADMISSION (Admission_Serial,CLUB_ID,P_ID,Admission_Date) VALUES(Admission_seq.NEXTVAL,140,38,to_date('20-2-2008','dd-mm-yyyy')); INSERT INTO ADMISSION (Admission_Serial,CLUB_ID,P_ID,Admission_Date) VALUES(Admission_seq.NEXTVAL,130,29,to_date('12-9-2009','dd-mm-yyyy')); INSERT INTO ADMISSION (Admission_Serial,CLUB_ID,P_ID,Admission_Date) VALUES(Admission_seq.NEXTVAL,120,56,to_date('25-8-2008','dd-mm-yyyy')); INSERT INTO ADMISSION (Admission_Serial,CLUB_ID,P_ID,Admission_Date) VALUES(Admission_seq.NEXTVAL,100,47,to_date('15-8-1989','dd-mm-yyyy'));

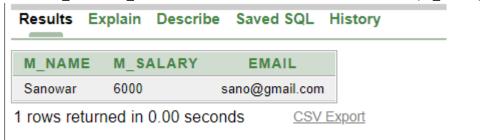


Query Writing:

Single row Function:

1. Display the manger id , name, and email for manager Sanowar

SELECT M_NAME, M_SALARY, EMAIL FROM MANAGER WHERE lower(M_NAME) = 'sanowar'



2. Find admitted players total weeks who's id = 47

SELECT ADMISSION_SERIAL ,P_ID, (SYSDATE-ADMISSION_DATE)/7 WEEKS FROM ADMISSION WHERE P_ID = 47

Results Explain Desc	ribe Sa	ved SQL History
TABLES TABLES		
ADMISSION_SERIAL	P_ID	WEEKS
27	47	1663.57693948412698412698412698412
32	47	1663.57693948412698412698412698412
2 rows returned in 0.00 s	econds	CSV Export

3. Tanusree, Sanowar and Mariam their salary increase according to (2, 1.5, 1.70)

SELECT M_NAME, M_SALARY, DECODE(M_NAME, 'Tanusree', M_SALARY*2, 'Sanowar', M_SALARY*1.5, 'Mariam', M_SALARY*1.70, M_SALARY) REVISED_SALARY FROM_MANAGER;

Results E	xplain Describ	e Saved SQL History
M_NAME	M_SALARY	REVISED_SALARY
Tanusree	5000	10000
Sanowar	6000	9000
Mariam	5000	8500
Sakib	7000	7000
Abu	10000	10000

5 rows returned in 0.00 seconds

CSV Export



Group Function:

1. Calculate min and max salary from manager table.

SELECT MIN(M_SALARY), MAX(M_SALARY)FROM MANAGER

Results	Explain	Describe	Saved SQL	History
MIN(M_	SALARY)	MAX(M_	SALARY)	
5000		10000		
4	turns and in (000000	d= 00V	Evport

1 rows returned in 0.00 seconds

CSV Export

2. Find average of all players salary.

SELECT P_NAME, AVG(P_SALARY) FROM PLAYER GROUP BY P_NAME;

Results E	xplain	Describe	Saved SQL	History
P_NAME	AVG(I	P_SALAR)	()	
Rahima	2000			
Karima	4000			
Rahim	1000			
Karim	3000			
Esha	5000			

3. Find salary from manager which salary is greater than 5000

5 rows returned in 0.00 seconds

SELECT M_NAME, MAX(M_SALARY) FROM MANAGER GROUP BY M_NAME HAVING max(M_SALARY)>5000;

CSV Export

Results	Explain	Describe	Saved 9	SQL	History
M_NAM	E MAX	(M_SALAR	(Y)		
Abu	10000				
Sakib	7000				
Sanowar	6000				
3 rows re	turned in	0.01 secon	ds	CSV	Export



Subqueries:

1. Display details of who built before 2005

SELECT * FROM CLUB WHERE ESTABLISH_YEAR <(select ESTABLISH_YEAR from CLUB where ESTABLISH_YEAR = '2005')

Results	Explain Describe	Saved SQL	History		
CLUB_ID	CLUB_NAME	LOCATION	ESTABLISH_YEAR	PHONE	EMAIL
100	ВМС	DHAKA	1999	1789658742	bmc@gmail.com
110	ABC	Abdullapur	1968	1896784821	abc@gmail.com
130	LBT	Lalmonirhat	2001	1896748521	lbt@gmail.com
140	SUT	Syhlet	1975	1723487512	sut@gmail.com

⁴ rows returned in 0.00 seconds CSV Export

2. Find the manager names who get the address wise lowest salary

Select M_NAME,M_SALARY from MANAGER where M_SALARY in (Select min(M_SALARY) from MANAGER Group by M_ADDRESS);

Results	Explain [Describe Saved	SQL History			
M_ID	M_NAME	M_ADDRESS	M_PHONE	M_SALARY	EMAIL	CLUB_ID
1	Tanusree	Lalmonirhat	1785963124	5000	tanu@gmail.com	100
2	Sanowar	Dhaka	1787859124	6000	sano@gmail.com	120
3	Mariam	Rajshahi	1875964218	5000	mari@gmail.com	110
4	Sakib	Dhaka	1776859124	7000	saki@gmail.com	130
5	Abu	Dhaka	1789635124	10000	abu@gmail.com	140
rows re	eturned in 0	00 seconds	CSV Export			

3. find the extact players who plays same sports like cricket

select s_id, sports_name from sports where (indoor, sports_name) IN (select indoor, sports_name from sports where $s_id = 150$) AND $s_id <> 150$;





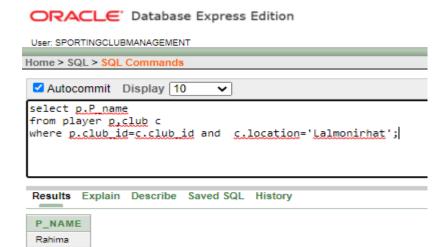
Joining

1. Display the name of all the Players who Play in Lalmonirhat.

Ans:

select p.P_name from player p,club c

where p.club_id=c.club_id and c.location='Lalmonirhat'

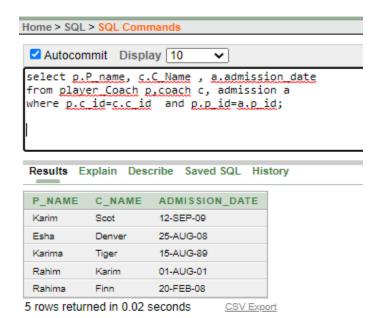


2. Display the name of all the Players and Club with their Admission Date Ans:

CSV Export

select p.P_name, c.C_Name , a.admission_date from player p,coach c, admission a where p.c_id=c.c_id and p.p_id=a.p_id;

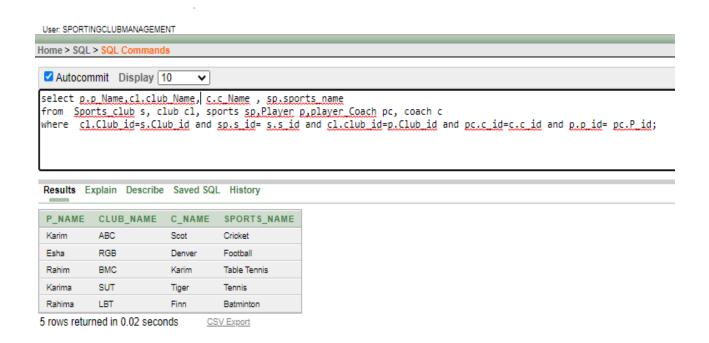
1 rows returned in 0.00 seconds



3. Write a query to display the Coach name, Club Name, and Sports name for all Players.

Ans:

select p.p_Name,cl.club_Name, c.c_Name , sp.sports_name from Sports_club s, club cl, sports sp,Player p,player_Coach pc, coach c where cl.Club_id=s.Club_id and sp.s_id= s.s_id and cl.club_id=p.Club_id and pc.c_id=c.c_id and p.p_id= pc.P id;

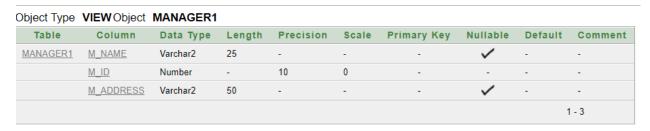


VIEW:

1. Create a view of manager table

CREATE VIEW MANAGER1 AS SELECT M_NAME, M_ID, M_ADDRESS FROM MANAGER WHERE M_ADDRESS = 'Dhaka';

DESCRIBE MANAGER1



2. Crate a view of player table

CREATE VIEW PLAYER_COACH_VIEW AS SELECT P_ID, P_NAME, P_ADDRESS FROM PLAYER_COACH WHERE P_SALARY = 1000;

SELECT * from PLAYER_COACH_VIEW





3. Modify the manger1 view changes their title name

CREATE OR REPLACE VIEW MANAGER1 (NAME, ID, ADDRESS) AS SELECT M_NAME, M_ID, M_ADDRESS FROM MANAGER WHERE M_ADDRESS = 'Dhaka'; select * from MANAGER1



3 rows returned in 0.00 seconds CSV Export

<u>Synonym</u>

1. Create a synonym for player_coach_view

CREATE SYNONYM P_VIEW FOR PLAYER_COACH_VIEW; SELECT * FROM P_VIEW



2. Create a synonym for MANAGER1 TABLE TO MANAGER2

CREATE SYNONYM MANAGER2 FOR MANAGER1; DESCRIBE MANAGER1





3. Drop synonym MANAGER2



Synonym dropped.

0.94 seconds

Conclusion:

While doing the project we learnt about how we can manage a sporting club using database and how we can make tasks easier for the users with the help of database. For the future we would like to add more features to the system. For Final term we would develop the application and database for the designed system.