

## **CS3400 Database Systems**

### **SQL Lab Session (Group-4) - 21<sup>st</sup> Dec 2006**

**For the questions given below, write the corresponding SQL statements in part A. In part B, write the SQL statements after executing and modifying (if necessary) on SQL Server Management Studio. In part C, write down SQL statements after executing them on SQL Learning Suite.**

Country (Country\_id varchar(10) primary key, Country\_name varchar(50), Region varchar(20), Avg\_temp varchar(10))

Player (Player\_id varchar(10) primary key, Fname varchar(50), LName varchar(50), Year\_of\_Birth integer, Country\_id varchar(10) references Country(Country\_id))

Team (Team\_id varchar(10) primary key, Duration integer)

Ground (Ground\_id varchar(10) primary key, Ground\_name varchar(100), Location varchar(50), Capacity integer, Country\_id varchar(10) references Country (Country\_id))

Umpire (Umpire\_id varchar(10) primary key, Umpire\_name varchar(50), Experience integer, Country\_id varchar(10) references Country(Country\_id))

Tournament (Tourn\_id varchar(10) primary key, Tourn\_name varchar(100), Host\_country varchar(10) references Country(Country\_id))

Player\_Team (Team\_id varchar(10) references Team(Team\_id), Player\_id varchar(10) references Player(Player\_id), primary key (Team\_id, Player\_id))

Match (Match\_id varchar(10) primary key, Tourn\_id varchar(10) references Tournament(Tourn\_id), Team1 varchar(10) references Team(Team\_id), Team2 varchar(10) references Team(Team\_id));

Player\_Match (Tourn\_id varchar(10) references Tournament(Tourn\_id), Match\_id varchar(10) references Match(Match\_id), Player\_id varchar(10) references Player(Player\_id), Overs\_bowled integer, Wickets\_taken integer, Extras integer, Runs integer, primary key (Match\_id, Player\_id))

Match\_Ground (Match\_id varchar(10) references Match(Match\_id), Ground\_id varchar(10) references Ground(Ground\_id), primary key (Match\_id))

Match\_Umpire (Match\_id varchar(10) references Match(Match\_id), Umpire1 varchar(10) references Umpire(Umpire\_id), Umpire2 varchar(10) references Umpire(Umpire\_id), primary key (Match\_id))

1. Delete all those tuples from 'Player\_Match' where the player has scored no runs in a match played in a ground of his home country.

Delete From Player\_Match P

Where P.Player\_Id in (Select P1.Player\_Id  
From Player\_Match P1, Player P2, Ground G,  
Match\_Ground MG  
Where P1.Match\_Id = MG.Match\_Id and MG.Ground\_Id  
= G.Ground\_Id and P2.Country\_Id = G.Country\_Id and  
P1.Player\_Id = P2.Player\_Id and P1.Runs = 0);

2. Update the capacities of all those grounds to 60000 where at least 8 centuries have been scored in a single match.

Update Ground G

Set G.Capacity = 60000

Where G.Ground\_Id in (Select MG.Ground\_Id  
From Match\_Ground MG  
Where MG.Match\_Id in (Select PM.Match\_Id  
From Player\_Match PM  
Where PM.Runs >= 100  
Group By PM.Match\_Id  
Having Count(\*) >= 8));

3. For each umpire having an experience of at least 10 years, find the number of matches which he has umpired outside his home country. Output the umpire id, umpire name and number of such matches.

Select U.Umpire\_Id, U.Umpire\_Name, Count(\*)  
From Umpire U, Match\_Umpire MU, Tournament T, Match M  
Where U.Experience >= 10 and MU.Match\_Id = M.Match\_Id and M.Tourn\_Id =  
T.Tourn\_Id and U.Country\_Id != T.Host\_Country and (U.Umpire\_Id =  
MU.Umpire1 or U.Umpire\_Id = MU.Umpire2)  
Group By U.Umpire\_Id, U.Umpire\_Name;

4. Give the tournament details (Tournament Name and Host country) and the details (First name and Last name) of all those Indian players who scored a century in a match of this tournament against the host country.

```

Select T.Tourn_Name, C1.Country_Name, P.Fname, P.Lname
From Tournament T, Player P, Player_Match PM, Country C, Country C1
Where P.Country_Id = C.Country_Id and C.Country_Name = 'India' and
P.Player_Id = PM.Player_Id and PM.Tourn_Id = T.Tourn_Id and
T.Host_Country != C.Country_Id and PM.Runs >= 100 and
T.Host_Country = C1.Country_Id
and Exists (Select *
            From Player_Match PM1, Player P1
            Where PM1.Tourn_Id = PM.Tourn_Id and
            PM1.Match_Id = PM.Match_Id and PM1.Player_Id = P1.Player_Id
            and P1.Country_Id = T.Host_Country);

```