# CS3400 Database Systems

## Quiz 3 - 11th Dec 2006

**For the questions given below, write the corresponding SQL statements. The primary keys for each of the relations are underlined.**

Player (int Pid, varchar(255) First Name, varchar(255) Last Name, int Age, varchar(255) Country)
Match (int Mid, date Date, varchar(255) Venue_Stadium, varchar(255) Venue_Country)
Match_Team (int Mid, int CaptainPid, int Wicket-KeeperPid)
Match_Batting (int Mid, int Pid, int Runs_Scored, int Balls_Faced)
Match_Bowling (int Mid, int Pid, int Overs_Bowled, int Runs_Given, int Wickets_Taken)

**The foreign key, primary key relationships:**
Match_Team(Mid) references Match(Mid)
Match_Batting(Mid) references Match(Mid)
Match_Bowling(Mid) references Match(Mid)
Match_Team(CaptainPid) references Player(Pid)
Match_Team(Wicket-KeeperPid) references Player(Pid)
Match_Batting(Pid) references Player(Pid)
Match_Bowling(Pid) references Player(Pid)

1. Find all the players for whom the sum of runs they scored in batting (Runs_Scored) in all the matches they played that are held in 'India' is less than the sum of runs they gave in bowling (Runs_Given) in all the matches they played that are held in 'India'. Display the first name, last name of the player, the sum of runs scored in batting across all matches they played and the sum of runs they gave in bowling across all matches they played.

2. Find all the players whose age is more than 30 and
   a. who did not make a century (Runs_Scored is >= 100) in any match that is held in 'India' and
   b. who took more than 5 wickets in at least one match that is held in 'South Africa' and
   c. who faced more than 10,000 balls in batting in all the matches he has batted.
   Display the first name, last name and the age of the player.

3. Find all matches that are held in 'India' in which the wicket keeper of a team whose age is less than 25 has scored more than 100 runs (Runs_Scored) and the captain of the SAME country whose age is more than 30 has bowled more than 5 overs (Overs_Bowled) and gave less than 10 runs (Runs_Given).

4. Find all the captains whose runs scored are more than 50% of the sum of runs scored by all the players of his team (including him) in any match.

5. For all matches played in 'India' and the sum total runs made in batting by all players in that match is more than 400, increase the runs scored by all players by 10%.

6. Delete all 'Indian' players who did scored less than 1000 runs in batting in all the matches that are held in 'England' and who took less than 20 wickets in all the matches that are held in 'Sri Lanka'.

7. Delete all the captains from the Player relation who in any match scored less runs in batting the wicket-keeper of the same country.

8. Insert a new team into Match_Team with Mid 'M145', captain as that player who took a total of more than 50 wickets in the matches that are held in 'Austraila' and the wicket keeper as that player who scored a total of more than 400 runs in the matches that are held in 'West Indies' (assume that only one such player exists)