

Constraints and Triggers

Using Oracle, create a database storing information about soccer results. We assume TeamName is a valid key.

Table TEAMS

<u>TeamName</u>	TeamCountry
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Table MATCHES

<u>MatchID</u>	TeamA_Name (FK)	TeamB_Name (Fk)	Goal_A	Goal_B	Competition
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MatchID is the primary key. TeamA_Name and TeamB_Name are the foreign keys. They represent the team playing home (A) or away (B).

Table EUROLEAGUE

<u>TeamName</u>	Points	Goals_Scored	Goals_Conceded	Difference
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Set the following constraints using basic SQL (where possible) or triggers (where the normal constraints are not enough):

- MatchID* is an auto increment key. Use a sequence to define it.
- Competition* is either Champions League, Europa League, Premier League or La Liga .
- Country* is either Spain or England
- Goals* in the table MATCHES is a number ≥ 0

Triggers:

- Using a trigger, log into a table **LOGTEAM** the timestamps of all the insertions in the table **TEAMS**.
- Create a trigger that, every time a new team is inserted in the table **TEAMS**, inserts the name of the team in the **EUROLEAGUE** table if the team is not already there. Set points and goals to zero. You can extend trigger at point a) instead of creating a new trigger.

Insert in the table **TEAMS** the following data:

TeamName	Country
Arsenal	England
Manchester United	England
Chelsea	England
Everton	England
Barcelona	Spain
Real Madrid	Spain
Atletico Madrid	Spain
Sevilla	Spain

And check if your triggers work fine.

- Using a trigger, check that, if a match has *Premier League* or *La Liga* for competition, the country of the two teams is correct (both England for Premier League and both Spain for La Liga). If not, the match cannot be inserted into the table **MATCHES**.
- Using a trigger, check that a team has no more than 4 matches in the table **MATCHES**.
- Using a trigger (you can extend trigger d), update the **EUROLEAGUE** table by adding three points to the winning team, 1 point to each team in case of a draw, and by updating goals scored, conceded and the goal difference. Note that the league table is for all the teams and competitions

Check your constraints and triggers by inserting some match data!