Advanced Databases, Dr. Pierpaolo Dondio
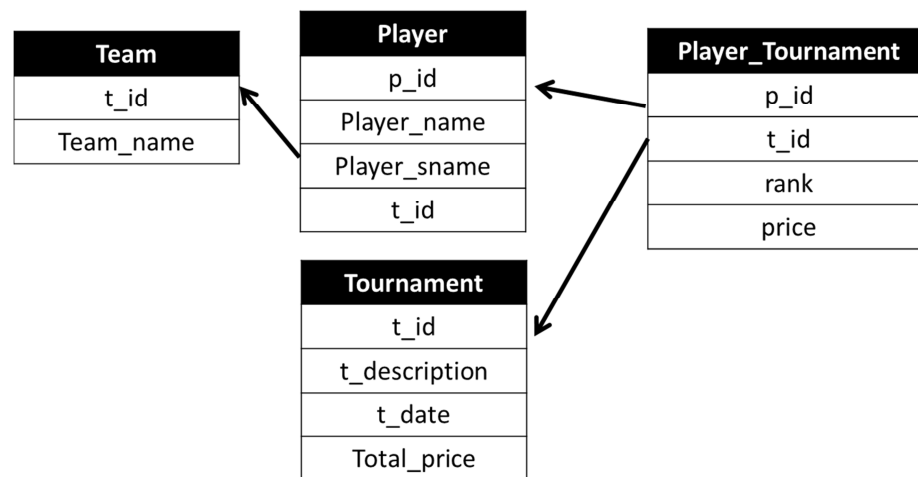
Lab – week 8

Dimensional Model and ETL

Execute the script *golf.sql*

The script generates two relational models for two *golf results* databases. Each golf player belongs to a team. Each player plays one or more tournament, and the DB stores player's ranking in the tournament and the price won for each tournament. The DB has a tournaments list as well.

ER DIAGRAM:

Each DB registers results from distinct tournaments, but the same player can be in both DBs. Assume that a player name and surname identifies <u>always</u> the same person. The same is for Team names, i.e. same team name across the two DBs represents the same team.
The data format is the same with only two exceptions:
   1. DB1 stores prices in EURO while DB stores prices in $. Assume a fix conversion rate 1 EURO = 1.3 DOLLAR and set all the values to EURO.
   2. DB 1 store the full date of a tournament (date data type), DB2 only the year (integer data type)

You are required to:

   1. Create the following dimensional model
   2. Load data from the two DBs into the Dimensional model, using surrogate keys and applying proper data transformations to address the two above differences in data representation.
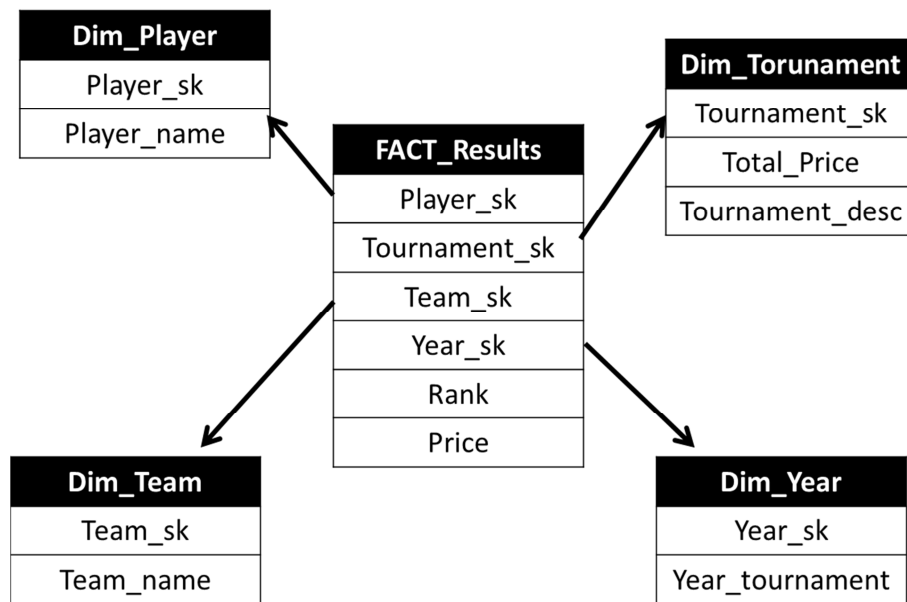
Useful command:

Extract the year from a date field (*t_date* in the example) and convert into an integer:

```
select cast(to_char(t_date,'YYYY') as integer) from tournamet1;
```

SECOND LOAD

After a while, the following new data are available in DB1. Execute the following statements to enter new data.

```
INSERT INTO PLAYERS1 (P_ID, P_NAME, P_SNAME, TEAM_ID) VALUES ('7', 'Alan', 'Parker', '1');

INSERT INTO PLAYERS1 (P_ID, P_NAME, P_SNAME, TEAM_ID) VALUES ('8', 'Martha', 'Bag', '2');

INSERT INTO TOURNAMENT1 (T_ID, T_DESCRIPRION, TOTAL_PRICE) VALUES ('5', 'Saudi Open',
'500000');


INSERT INTO RESULTS1 (T_ID, P_ID, RANK, PRICE) VALUES ('5', '7', '6', '10000');

INSERT INTO RESULTS1 (T_ID, P_ID, RANK, PRICE) VALUES ('5', '7', '5', '20000');

INSERT INTO RESULTS1 (T_ID, P_ID, RANK, PRICE) VALUES ('2', '8', '3', '1000');
```

Prodce SQL code to load the above data into the datewarehouse.