MTAT.03.105
Introduction to Databases

Lecture #8
Nested queries
Queries to multiple tables

Ljubov Jaanuska
(ljubov.jaanuska@ut.ee)
Lecture 7.  Summary

- Queries to a single table

SELECT [DISTINCT] 
{<column_name, ... >}
FROM {<table_name, ...>}
[WHERE {<expression>}] 
[GROUP BY {<column_name, ...>}] 
[HAVING {<expression>}] 
[ORDER BY {<column_name, ...>}] ;

SELECT p_name 
FROM player 
WHERE
len(p_name)<6 
GROUP BY p_name 
HAVING count(p_name)>1 
ORDER BY p_name
Lecture 8. What will you learn

• Queries to multiple tables
• Nested queries
Queries to multiple tables

```
SELECT * FROM Player, Club
```
Queries to multiple tables

**SELECT** p_name, surname, club_id, Club.c_id, Club.c_name
FROM Club, Player
WHERE surname = 'Hiis';

**SELECT** p_name, surname, club_id, Club.c_id, Club.c_name
FROM Club, Player
WHERE surname = 'Hiis' AND Player.club_id = Club.c_id;
WHERE vs JOIN

SELECT p_name, surname, club_id, Club.c_id, Club.c_name
FROM Club, Player
WHERE surname= 'Hiis' AND Player.club_id=Club.c_id;

SELECT p_name, surname, club_id, Club.c_id, Club.c_name
FROM Club JOIN Player ON Player.club_id=Club.c_id
WHERE surname= 'Hiis';
SELECT [list] FROM [Table A] A
LEFT JOIN [Table B] B
ON A.Value = B.Value

SELECT [list] FROM [Table A] A
RIGHT JOIN [Table B] B
ON A.Value = B.Value

SELECT [list] FROM [Table A] A
LEFT JOIN [Table B] B
ON A.Value = B.Value
WHERE B.Value IS NULL

SELECT [list] FROM [Table A] A
RIGHT JOIN [Table B] B
ON A.Value = B.Value
WHERE A.Value IS NULL
OR B.Value IS NULL

SELECT [list] FROM [Table A] A
FULL OUTER JOIN [Table B] B
ON A.Value = B.Value

SELECT [list] FROM [Table A] A
INNER JOIN [Table B] B
ON A.Value = B.Value
Nested queries

Show tournament data if player with id=72 participated in it.

```
SELECT * FROM Tournament
WHERE EXISTS (SELECT * FROM Game
WHERE Game.tournament_id = tournament.tournament_id
AND (white = 72 OR white = 72));
```
Tasks

1. Show ordered list of players (first name, surname) who play in club ‘Laudnikud’.
2. How many players are in club ‘Laudnikud’?
3. Show surnames of players whose first name begins with letter M and the player plays in the club whose name begins with letter V.
4. Show pairs of players (only ids) who had a game on the 4th of March between 9am and 11am.
5. Show first names and surnames of players who played with white chess pieces and won and the duration of the game was between 9 and 11 minutes.
6. Show surnames of the players if the surname appears in table Player more than one time.
7. Show the number of games that Arvos have played with white chess pieces.
Tasks

8. Show the number of points that Marias have gained playing with black chess pieces (black_result=2 is equal to 1 point, black_result=1 is equal to 0.5 points, black_result=0 is equal to 0 points).

9. Show the first names of quickest players who have ended in draw.

10. Who has the same amount of losses and the wins? Show the first name and the surname.

Please submit answers in a .txt file.
Add .db and .log file.
Deadline: 4. April 23:55