

ISYS2014 – Database System

21049644 – Huu Minh Quan Trinh

Laboratory: Wednesday 4-6pm

Final Assignment – User Guide

## Introduction

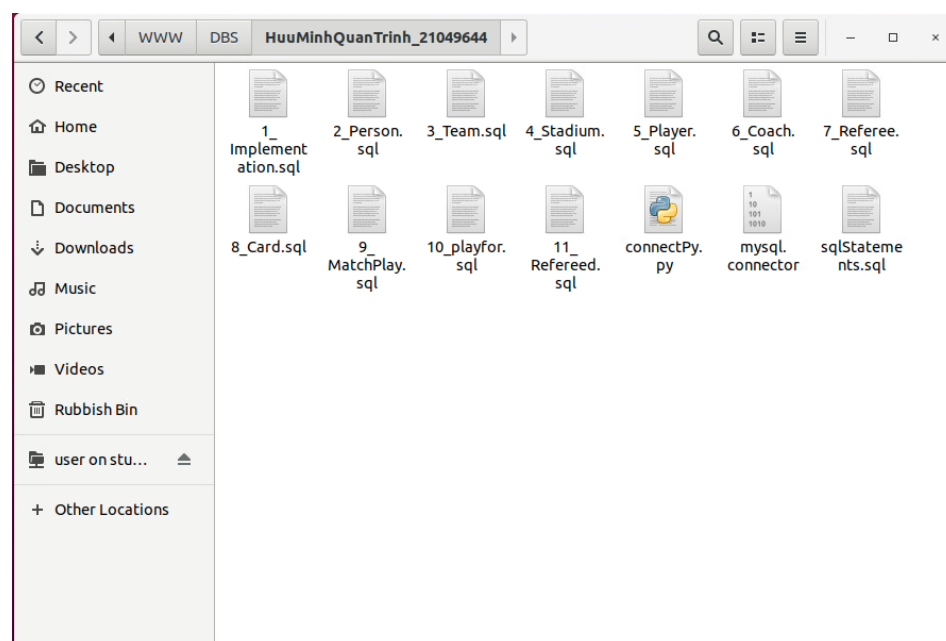
The database gathers information from the FIFA Women World Cup 2023. Every material should be available within the folder 'HuuMinhQuanTrinh\_21049644'.

```
mysql> \s;
-----
mysql Ver 14.14 Distrib 5.7.41, for Linux (x86_64) using EditLine wrapper

Connection id:          34
Current database:       wwcData_21049644
Current user:           me@localhost
SSL:                    Not in use
Current pager:          stdout
Using outfile:          ''
Using delimiter:        ;
Server version:         5.7.41-0ubuntu0.18.04.1 (Ubuntu)
Protocol version:       10
Connection:             Localhost via UNIX socket
Server characterset:    latin1
Db characterset:        latin1
Client characterset:    utf8
Conn. characterset:     utf8
UNIX socket:            /var/run/mysqld/mysqld.sock
Uptime:                 6 hours 14 min 9 sec

Threads: 2  Questions: 15253  Slow queries: 0  Opens: 1796  Flush tables: 1  Open tables: 290  Qu
eries per second avg: 0.679
-----
```

## Instruction



Scripts are named with numbers and table's names, indicating the order of implementing the code. However, the '9\_MatchPlay.sql' must be executed before the '8\_Card.sql'.

```
1_Implementation.sql
user on student.ad.curtin.edu.au / user/...049644/WWW/DBS/HuuMinhQuanTrinh_210...
Save

CREATE DATABASE wwcData_21049644;
USE wwcData_21049644;

--Create Tables
DROP TABLE IF EXISTS Person;
CREATE TABLE Person(
    firstName VARCHAR(20) NOT NULL,
    lastName VARCHAR(20),
    nationality VARCHAR(20) NOT NULL,
    DOB DATE NOT NULL,
    PRIMARY KEY (firstName, lastName, nationality)
);

DROP TABLE IF EXISTS Team;
CREATE TABLE Team(
    teamName VARCHAR(15) NOT NULL,
    teamID CHAR(6) NOT NULL,
    ranking INT,
    PRIMARY KEY (teamID)
);

DROP TABLE IF EXISTS Stadium;
CREATE TABLE Stadium(
    stadName VARCHAR(40) NOT NULL,
    city VARCHAR(20) NOT NULL,
    state CHAR(10) NOT NULL,
    capacity INT,
    PRIMARY KEY (stadName)
);

DROP TABLE IF EXISTS Player;
CREATE TABLE Player(
    playerID VARCHAR(10) NOT NULL,
    pnumber INT NOT NULL,
    age INT NOT NULL,
    position VARCHAR(2) NOT NULL,
    firstName VARCHAR(20),
    ...
);
```

There is no need to use command 'CREATE DATABASE' as it is already included in the first script (1\_Implementation.sql). As soon as the script is executed, a new database is created and used, 10 tables should be available.

```
File Edit View Search Terminal Help
Query OK, 0 rows affected (0.04 sec)

Query OK, 0 rows affected, 1 warning (0.00 sec)

Query OK, 0 rows affected (0.03 sec)

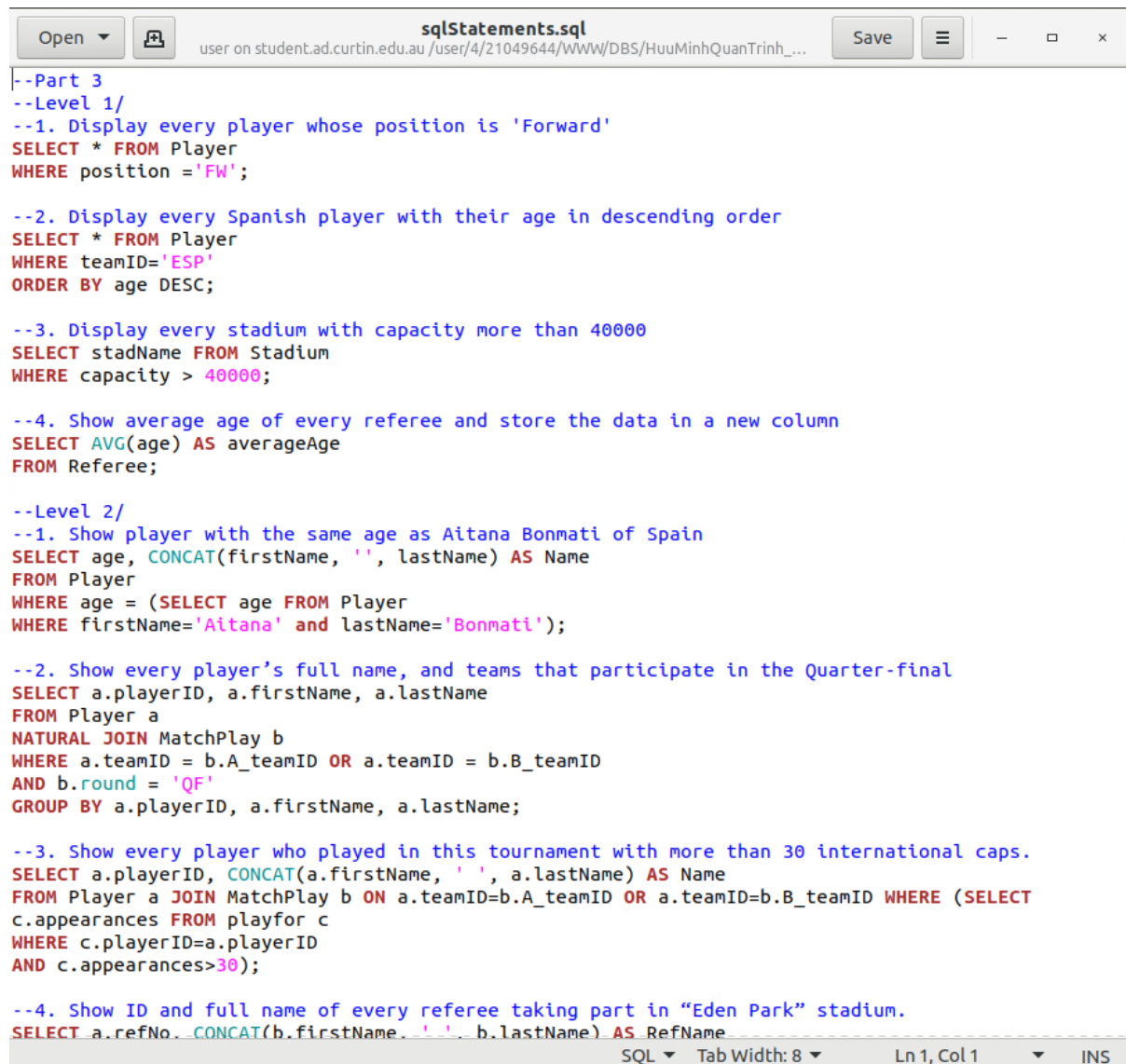
mysql> SHOW TABLES;
+-----+
| Tables_in_wwcData_21049644 |
+-----+
| Card                        |
| Coach                      |
| MatchPlay                  |
| Person                     |
| Player                     |
| Referee                    |
| Refereed                   |
| Stadium                    |
| Team                       |
| playfor                     |
+-----+
10 rows in set (0.00 sec)

mysql>
```

The order of inserting data:

'1\_Implementation.sql' – '2\_Person.sql' – '3\_Team.sql' – '4\_Stadium.sql' – '5.Player.sql' –  
'6\_Coach.sql' – '7\_Referee.sql' – '9\_MatchPlay.sql' – '8\_Card.sql' – '10.playfor.sql' – '11.Refereed.sql'.

By following the order above, data should be inserted properly.



```
--Part 3
--Level 1/
--1. Display every player whose position is 'Forward'
SELECT * FROM Player
WHERE position = 'FW';

--2. Display every Spanish player with their age in descending order
SELECT * FROM Player
WHERE teamID='ESP'
ORDER BY age DESC;

--3. Display every stadium with capacity more than 40000
SELECT stadName FROM Stadium
WHERE capacity > 40000;

--4. Show average age of every referee and store the data in a new column
SELECT AVG(age) AS averageAge
FROM Referee;

--Level 2/
--1. Show player with the same age as Aitana Bonmati of Spain
SELECT age, CONCAT(firstName, ' ', lastName) AS Name
FROM Player
WHERE age = (SELECT age FROM Player
WHERE firstName='Aitana' and lastName='Bonmati');

--2. Show every player's full name, and teams that participate in the Quarter-final
SELECT a.playerID, a.firstName, a.lastName
FROM Player a
NATURAL JOIN MatchPlay b
WHERE a.teamID = b.A_teamID OR a.teamID = b.B_teamID
AND b.round = 'QF'
GROUP BY a.playerID, a.firstName, a.lastName;

--3. Show every player who played in this tournament with more than 30 international caps.
SELECT a.playerID, CONCAT(a.firstName, ' ', a.lastName) AS Name
FROM Player a JOIN MatchPlay b ON a.teamID=b.A_teamID OR a.teamID=b.B_teamID WHERE (SELECT
c.appearances FROM playfor c
WHERE c.playerID=a.playerID
AND c.appearances>30);

--4. Show ID and full name of every referee taking part in "Eden Park" stadium.
SELECT a.refNo, CONCAT(b.firstName, ' ', b.lastName) AS RefName
```

'sqlStatements.sql' contains some statements to retrieve useful information from the database, all statements are noted with comments for explanation.