USER GUIDE

ISYS2014 DATABASE SYSTEMS FINAL ASSESSMENT 2022

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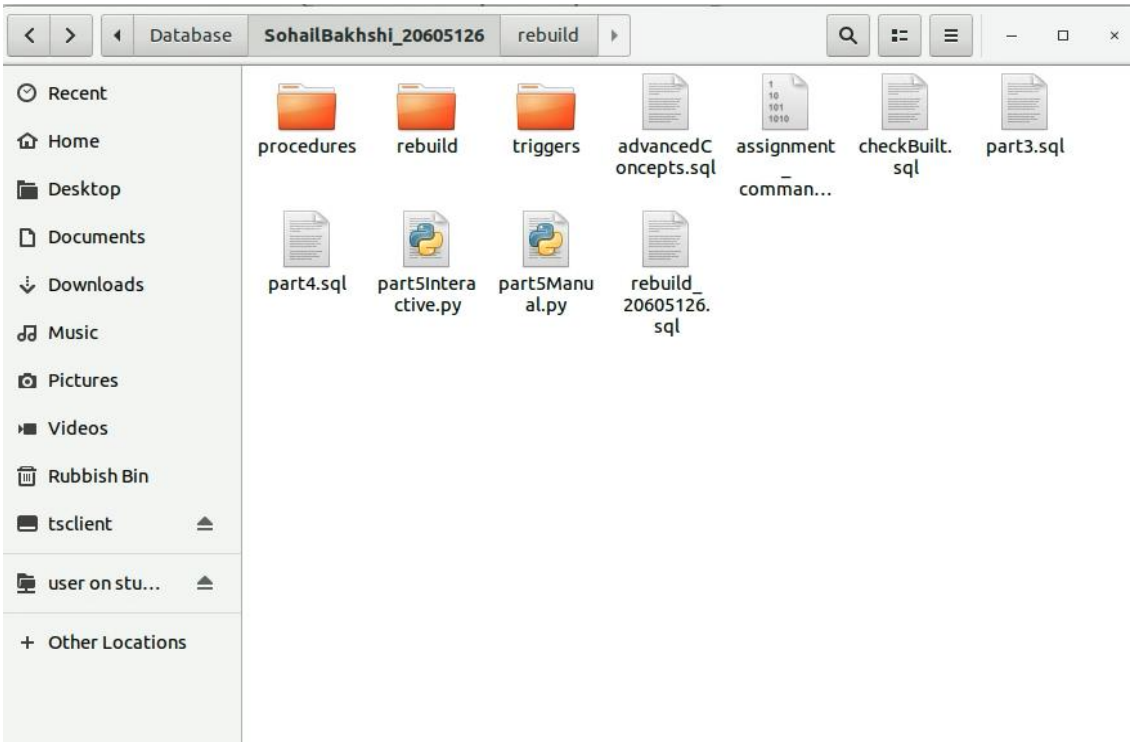
ID: 20605126 | Class: Curtin University Super Lab 314:114 Thursday 12-2

The database I will be demonstrating will consist of the Indian premier league season 1 data. In order to run and setup the database the following steps should be done.

STEP 1:

Within the assignment directory open up a terminal

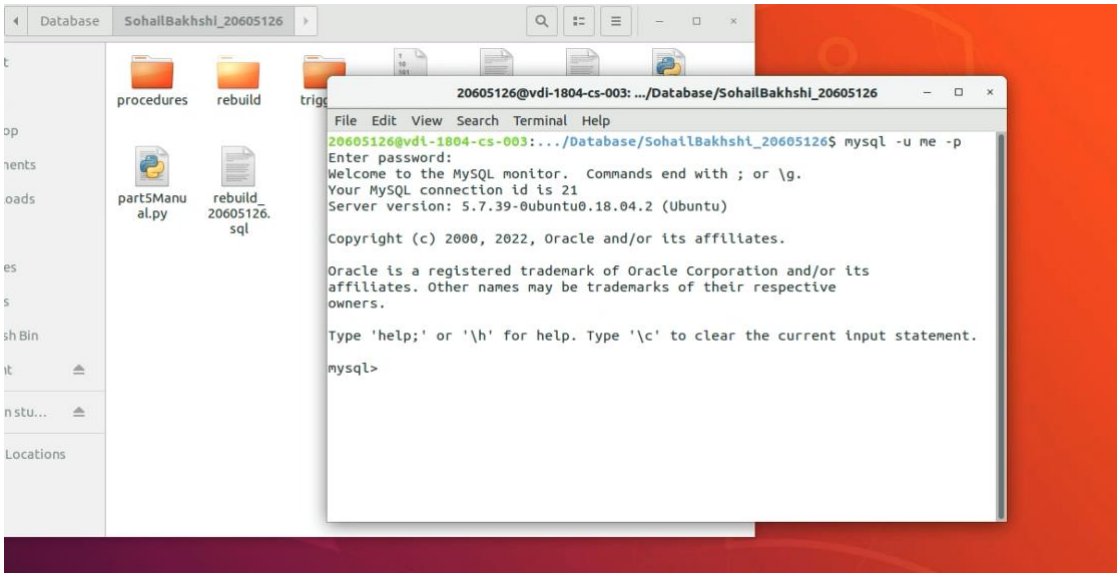


To access MySQL enter the following into the terminal:

- mysql -u me -p

It will ask for a password type:

- myUserPassword

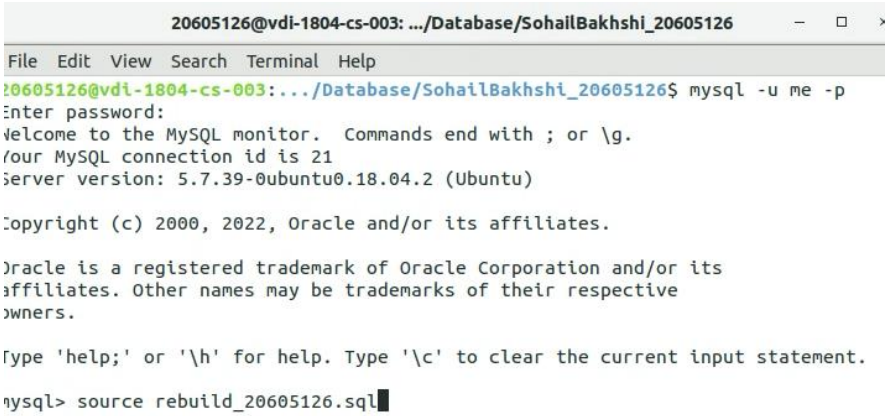


STEP 2:

You should now be in MySQL ready to load up my database.

To load my database, enter the following into MySQL.

- SOURCE rebuild_20605126.sql



This file should create and use a database called IPLDatabase_20605126 and should create 11 tables and insert 11 csv files into the tables. To check if everything worked type the following:

- SOURCE checkBuilt.sql

This will display the database being used as well as the table structures and a few tables to check if the data inserted properly.

STEP 3:

Now that the database is setup with the tables and data you can source the queries for part3. Type the following command into MySQL.

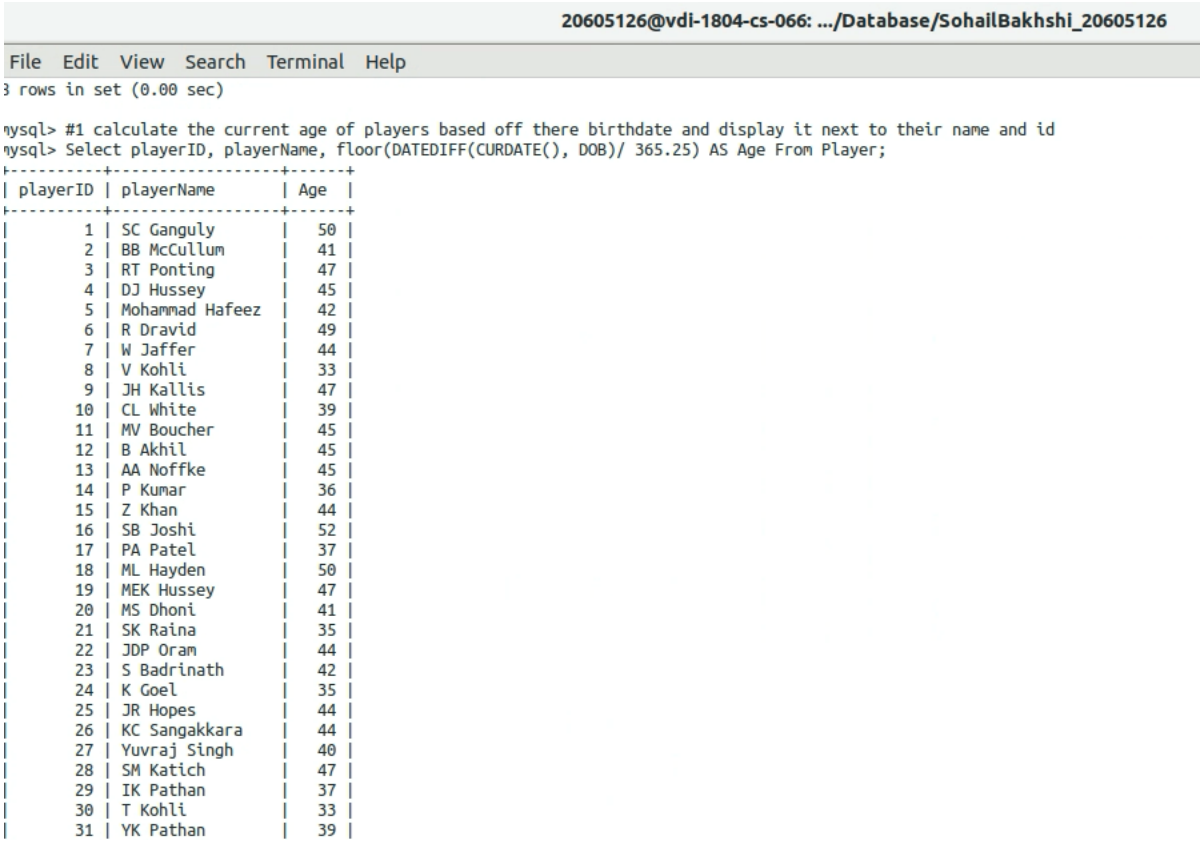
- SOURCE part3.sql

```
20605126@vdi-1804-cs-048: .../Database/SohailBakhshi_20605126
File  Edit  View  Search  Terminal  Help
.66 rows in set (0.00 sec)

ıysql> source part3.sql
+----------+------------------+------+
| playerID | playerName       | Age  |
+----------+------------------+------+
|        8 | V Kohli          |   33 |
|       21 | SK Raina         |   35 |
|       24 | K Goel           |   35 |
|       30 | T Kohli          |   33 |
|       35 | RA Jadeja        |   33 |
|       47 | PR Shah          |   34 |
|       57 | RG Sharma        |   35 |
|       65 | S Sohal          |   34 |
|       67 | PP Chawla        |   33 |
|       79 | SS Tiwary        |   32 |
|       80 | DS Kulkarni      |   33 |
|       84 | I Sharma         |   34 |
|       85 | AM Rahane        |   34 |
|       91 | VY Mahesh        |   34 |
|       92 | TM Srivastava    |   32 |
|       96 | MK Pandey        |   33 |
|      112 | DB Ravi Teja     |   35 |
|      116 | PJ Sangwan       |   31 |
|      125 | S Anirudha       |   35 |
|      127 | CK Kapugedera    |   35 |
|      132 | SP Goswami       |   33 |
|      134 | U Kaul           |   34 |
|      140 | Iqbal Abdulla    |   32 |
|      142 | PM Sarvesh Kumar |   33 |
```

(Not all queries shown as it wont fit in one screen)

This will display all my queries for part 3 of the assignment. However, it may be hard to follow as there is a lot of queries. Another option is to open the part3.sql file and copy each command into MySQL prompt.

```
Open   part3.sql
user on student.ad.curtin.edu.au /user/6/20605126/Database/SohailBakhshi_20605126   Save

#part 3 of assignment
#Sohail Bakhshi
#ID 20605126
#LEVEL1
#using basic select statements

#1 calculate the current age of players based off there birthdate and determine if there are any
players younger than the general retirement age and display it next to their name and id

Select playerID, playerName, floor(DATEDIFF(CURDATE(), DOB)/ 365.25) AS Age From Player where
floor(DATEDIFF(CURDATE(), DOB)/ 365.25) between 18 and 35 ;

#2 display players name, ID and country that are playing in the final. These teams are called
Chennai Super Kings and Rajasthan Royals

Select playerID, playerName,country from Player where team ='Chennai Super Kings' or team =
'Rajasthan Royals';

#3 display the winners of each match

select matchID,team1,team2, winner from cricketMatch;


#4 show players with fast bowling skill

select playerName,bowlingSkill from Player where bowlingSkill is NOT NULL and bowlingSkill LIKE
'%fast%';


#5 get how many days the season lasted

select DATEDIFF(MAX(matchDate),MIN(matchDate)) AS 'Season Runtime (Days)'  from cricketMatch;
```



This should be done for every query in part 3 if you wish to understand what each query does.

STEP 4:

To insert the procedures, triggers, and views into the database the following should be typed into the MySQL prompt.

- SOURCE advancedConcept.sql

After sourcing the file, it will insert all my procedures, triggers, and views ready for use.

To test my advanced concepts, type the following

- SOURCE part4.sql

After sourcing the file, you will notice a few queries testing the procedures, triggers, and views. If you wish to test it out yourself open the part4.sql file.

Open | part4.sql | user on student.ad.curtin.edu.au /user/6/20605126/Database/SohailBakhshi_20605126 | Save

```
#Sohail Bakhshi
#ID 20605126
#part 4 of assignment (using advanced concepts)
#file for testing advanced concepts

#procedures

#1 #testing insPlayer procedure
CALL insPlayer('Sohail Bakhshi', '2002/10/04','Afghanistan','Chennai Super Kings');
CALL insPlayer('Bob', '1980/1/14','Australia','Chennai Super Kings');

#2 testing numPlayers procedure
CALL numPlayers('Chennai Super Kings',@count);
select @count;
CALL numPlayers('Mumbai Indians',@count);
select @count;

#3 testing createPlayerList procedure
CALL createPlayerList(@playerList);
SELECT @playerList;

#4 testing createWinnersList procedure
CALL createWinnersList(@winnersList);
SELECT @winnersList;

#5 testing insVenue procedure
CALL insVenue('Optus Stadium','Perth','Australia');
CALL insVenue('Fake Stadium','FakeCity','FakeCountry');

#6 testing matchesPlayed procedure
CALL matchesPlayed(132,@matches);
select @matches;
CALL matchesPlayed(100,@matches);
```

SQL | Tab Width: 8 | Ln 1, Col 1 | INS

To test the procedures, triggers or views yourself you can substitute the variable I have used in my sample queries and paste it into the MySQL command prompt to test it yourself.

For example:

```
mysql> CALL numPlayers('Chennai Super Kings',@count);
```

```
mysql> select @count;
+--------+
| @count |
+--------+
|     20 |
+--------+
1 row in set (0.00 sec)
```

And so on.

STEP 5:

Before using the python files make sure you have completed steps 1-4 first.
To run the python files first make sure the mysql.connector is installed.

In the case that the following above does occur enter into the terminal:

- `python3 -m pip install mysql-connector`
- `python3 -m pip install mysql-connector-python-rf`

This should install the MySQL connector.

I have 2 versions of the python implementation in my folder. The first one already has commands entered and will output only those commands when you run the file (part5Manual.py). The second one is a user interactive menu that allows the user to interact (part5Interactive.py).

To run manual version, enter into a new terminal screen but within the same directory:

- python3 part5Manual.py

```
20605126@vdi-1804-cs-034:.../Database/SohailBakhshi_20605126$ python3 part5Manual.py

Displaying Players
(1, 'SC Ganguly')
(2, 'BB McCullum')
(3, 'RT Ponting')
(4, 'DJ Hussey')
(5, 'Mohammad Hafeez')
(6, 'R Dravid')
(7, 'W Jaffer')
(8, 'V Kohli')
(9, 'JH Kallis')
(10, 'CL White')
(11, 'MV Boucher')
(12, 'B Akhil')
(13, 'AA Noffke')
```

(there's more information outputted than this)
To run interactive version, enter into a new terminal screen but within the same directory:

- python3 part5Interactive.py

This modes usage is pretty straight forward. Select an option between 1 and 7. 1 allows you to insert into a table. 2 allows you to select a table, 3 allows you to delete a row from a table. 4 allows you to create a table. 5 allows you to update a table. 6 displays the table structures and 7 shows all tables within the database. To exit enter x.