

USER GUIDE

ISYS2014 DATABASE SYSTEMS FINAL ASSESSMENT 2022

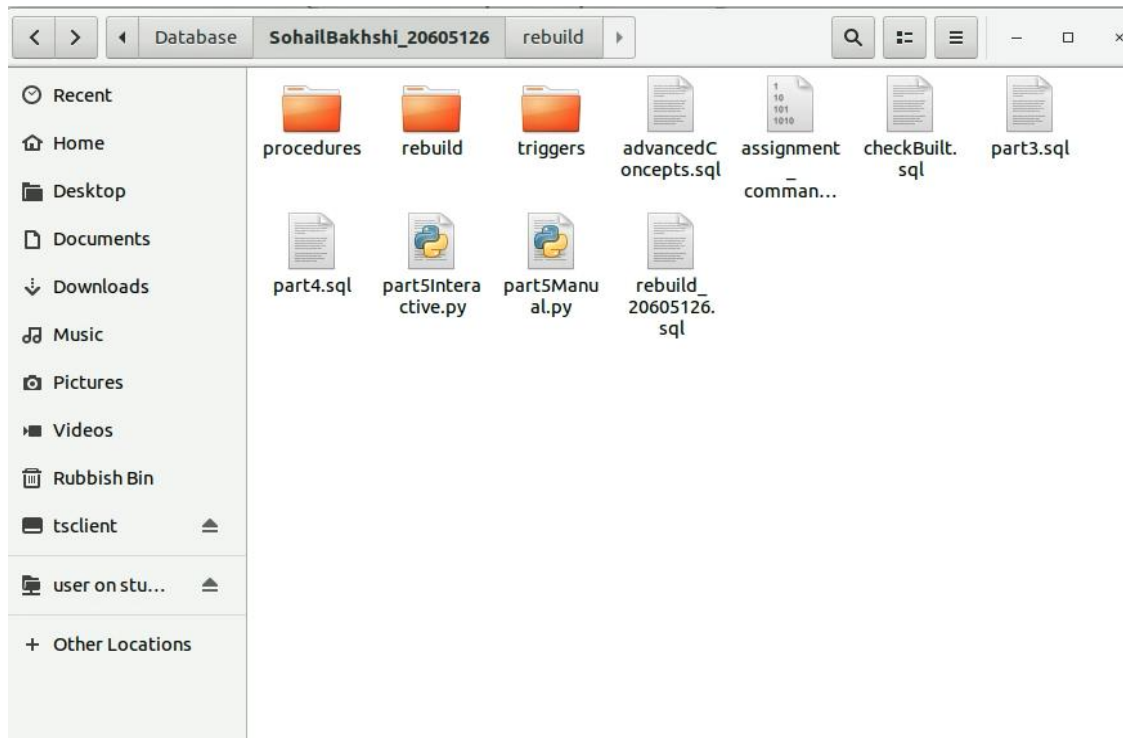
Sohail Bakhshi

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

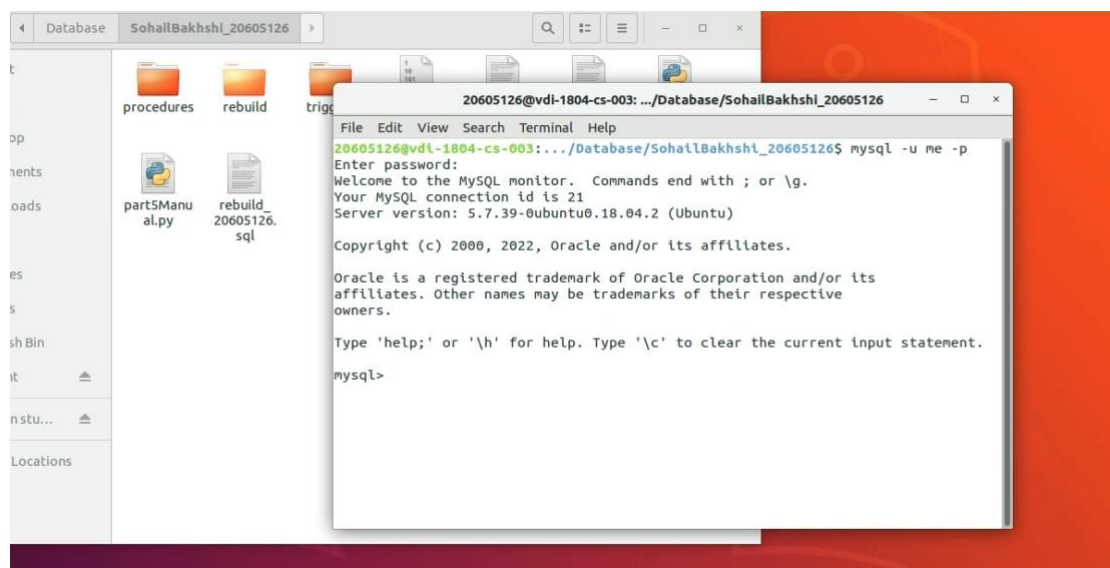


To access MySQL enter the following into the terminal:

- `mysql -u me -p`

It will ask for a password type:

- `myUserPassword`

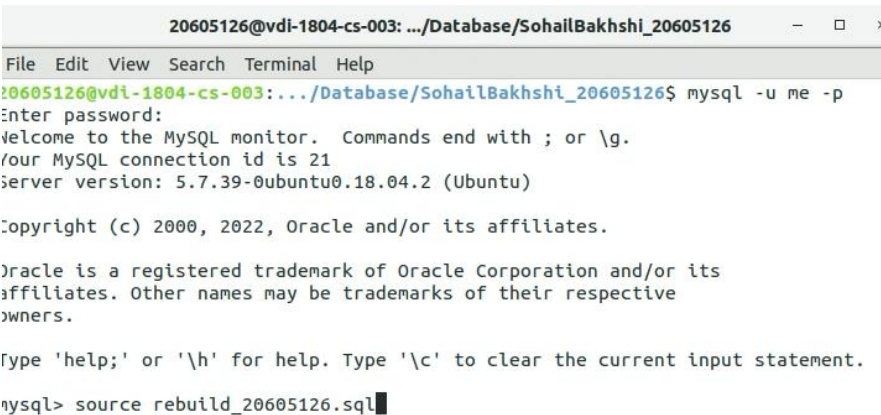


STEP 2:

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

A screenshot of a terminal window. The title bar reads "20605126@vdi-1804-cs-003: .../Database/SohailBakhshi_20605126". The terminal shows a menu bar with "File Edit View Search Terminal Help". The prompt is "20605126@vdi-1804-cs-003: .../Database/SohailBakhshi_20605126\$". The command "mysql -u me -p" is entered. The output shows the MySQL login process: "Enter password:", "Welcome to the MySQL monitor. Commands end with ; or \g.", "Your MySQL connection id is 21", "Server version: 5.7.39-0ubuntu0.18.04.2 (Ubuntu)", "Copyright (c) 2000, 2022, Oracle and/or its affiliates.", "Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.", "Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.", and finally "mysql> source rebuild_20605126.sql" with a cursor at the end.

```
20605126@vdi-1804-cs-003: .../Database/SohailBakhshi_20605126$ mysql -u me -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 21
Server version: 5.7.39-0ubuntu0.18.04.2 (Ubuntu)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

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)

mysql> 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;

```

File Edit View Search Terminal Help

3 rows in set (0.00 sec)

```
mysql> #1 calculate the current age of players based off their birthdate and display it next to their name and id
mysql> Select playerID, playerName, floor(DATEDIFF(CURDATE(), DOB)/ 365.25) AS Age From Player;
```

playerID	playerName	Age
1	SC Ganguly	50
2	BB McCullum	41
3	RT Ponting	47
4	DJ Hussey	45
5	Mohammad Hafeez	42
6	R Dravid	49
7	W Jaffer	44
8	V Kohli	33
9	JH Kallis	47
10	CL White	39
11	MV Boucher	45
12	B Akhil	45
13	AA Noffke	45
14	P Kumar	36
15	Z Khan	44
16	SB Joshi	52
17	PA Patel	37
18	ML Hayden	50
19	MEK Hussey	47
20	MS Dhoni	41
21	SK Raina	35
22	JDP Oram	44
23	S Badrinath	42
24	K Goel	35
25	JR Hopes	44
26	KC Sangakkara	44
27	Yuvraj Singh	40
28	SM Katich	47
29	IK Pathan	37
30	T Kohli	33
31	YK Pathan	39

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.

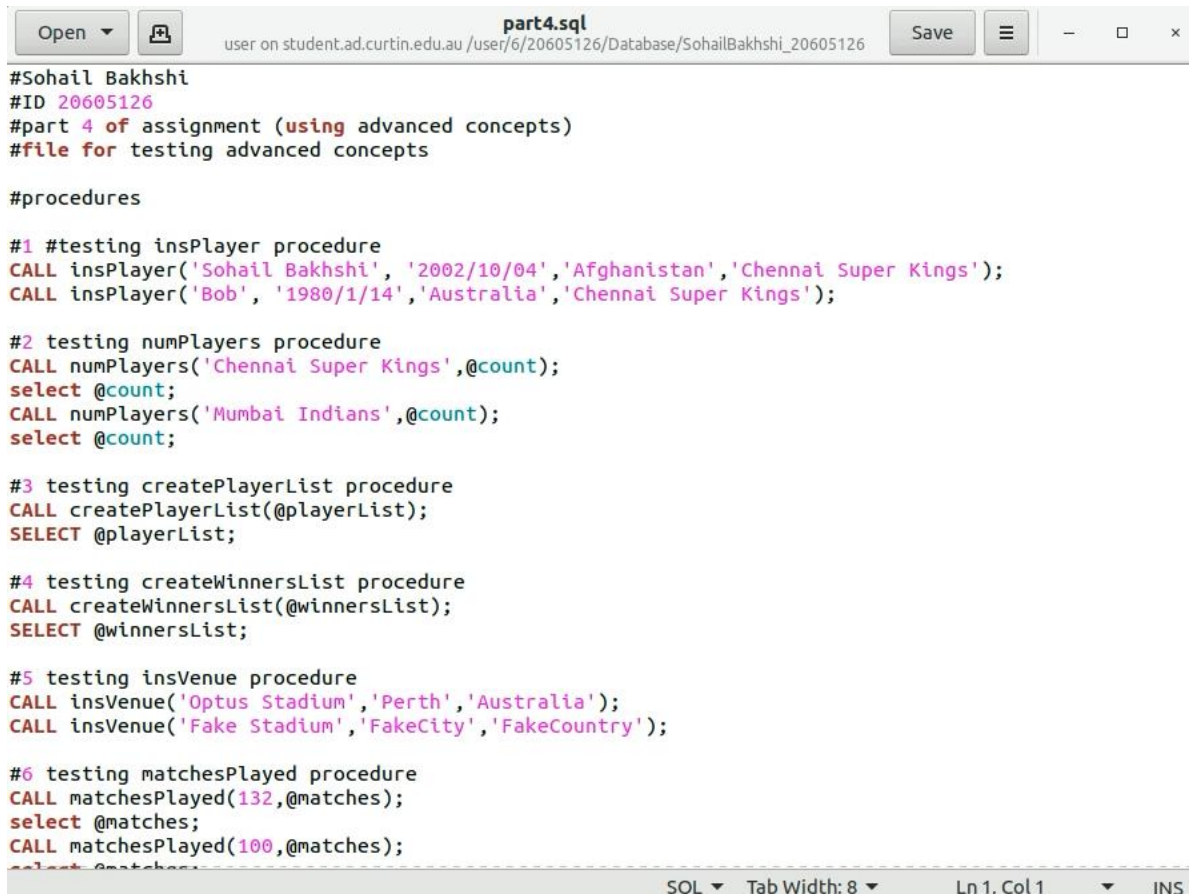
- SOURCE advancedConcept.sql

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.



```
#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);
select @matches;
```

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:

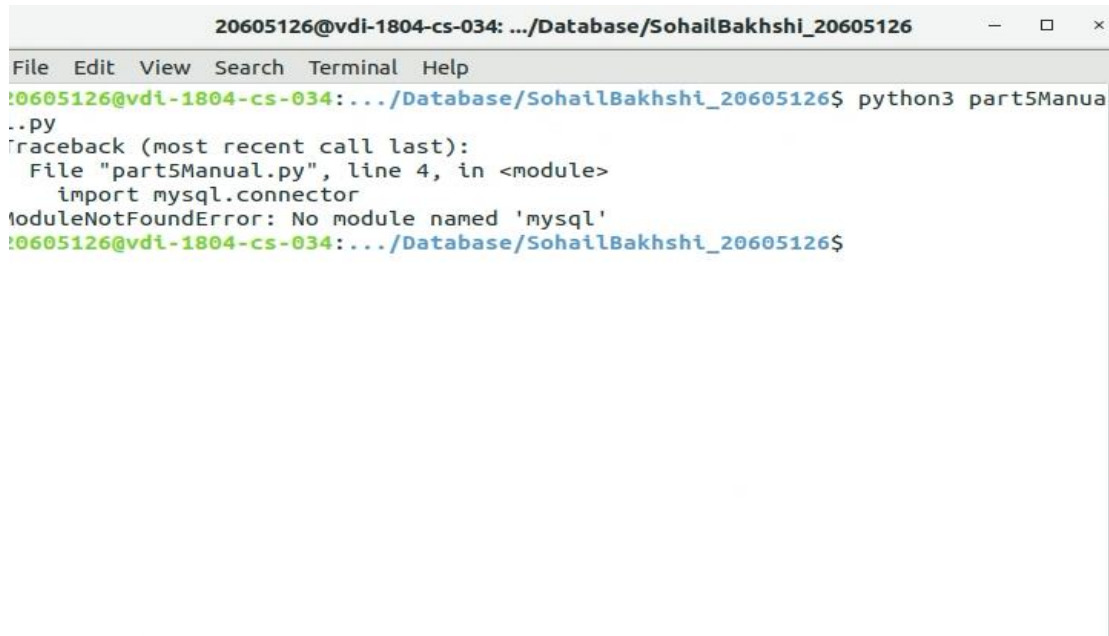
```
mysql> CALL numPlayers('Chennai Super Kings', @count);
```

```
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.



```
20605126@vdi-1804-cs-034: .../Database/SohailBakhshi_20605126
File Edit View Search Terminal Help
20605126@vdi-1804-cs-034: .../Database/SohailBakhshi_20605126$ python3 part5Manual
..py
Traceback (most recent call last):
  File "part5Manual.py", line 4, in <module>
    import mysql.connector
ModuleNotFoundError: No module named 'mysql'
20605126@vdi-1804-cs-034: .../Database/SohailBakhshi_20605126$
```

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

```
20605126@vdi-1804-cs-072:~/Database/SohailBakhshi_20605126$ python3 part5Interactive.py
Insert [1]
Select [2]
Delete [3]
Create [4]
Update [5]
Table Structure [6]
Display Tables [7]
Exit [x]
Please Select an option: █
```

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.