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CS317 – Files and Database Systems
Dr. Van Hilst
**Due:** 30 October 2019

## Assignment 4: Connectors and Stored Procedures

In this assignment the database was accessed from programs written in Python. The programs and their results, if needed to be displayed for a question, were copied from the MobaXTerm terminal window and pasted into this document unedited except for changing the font. This was done instead of a screenshot of the output for clarity and readability. With this being said:

```
I, Andrea Gray, hereby agree under penalty of United States law and in accordance to all rules and
regulations put forth by Embry-Riddle Aeronautical University, a higher education institute, that on
this day, the thirtieth of October, of the year two-thousand and nineteen, that all answers to the
questions posed within this document are copied directly from the terminal window of the MobaXTerm
integrated development environment and have been placed within this same document with the only change
made to the text being the alteration of font from 'Times New Roman' to 'Courier New' for readability.
Subsequently, I, Andrea, agree that no other changes have been made to said text including, but not
limited to, alterations of syntax, character input, or character deletion, whether for the benefit of
myself, the reader, or otherwise.

Legally binding signature:
```

1. An application was created based off of the python5.py file given for this assignment. The source file was edited to connect to the database, submit a SELECT query for a list of team names, and display the results. The application's results are shown below:

```
[graya17@prclab1 HW4]$ python Q1.py
('Total Rows:', 6)
3 Google Larry Page
4 Intel Gordon Moore
2 Microsoft Bill Gates
1 NASA Dwight Eisenhower
0 SpaceX Elon Musk
5 Uber Travis Kalanick
```

2. A stored procedure that lists the team names was created using CREATE PROCEDURE. This is demonstrated with the CALL command.
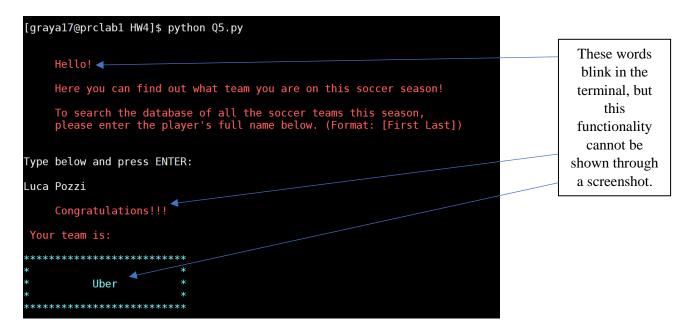
```
mysql> CALL get_teams();
+-----------+
| teamName  |
+-----------+
| Google    |
| Intel     |
| Microsoft |
| NASA      |
| SpaceX    |
| Uber      |
+-----------+
6 rows in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)
```

3. A stored procedure that returns the team name of a given player was created using CREATE PROCEDURE. This procedure took one argument which was used in a WHERE clause to display only the one team name. The CALL command is used to demonstrate the functionality of this procedure, as seen below.

```
mysql> CALL teamPlayer('Luca Pozzi');
+----------+
| teamName |
+----------+
| Uber     |
+----------+
1 row in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)
```

4. An application was created based off of the proc1.py source module for this assignment. The application uses the team list stored procedure from Question 2 above and prints a list of the team names in the result, below:

```
[graya17@prclab1 HW4]$ python Q4.py
Google
Intel
Microsoft
NASA
SpaceX
Uber
```

5. An application was created that uses the player's team stored procedure from Question 3. This application, when ran, results in printing the player's team name in a formatted display. It is shown below as a screenshot since the formatting would be tedious to try to replicate within the document.



These words blink in the terminal, but this functionality cannot be shown through a screenshot.

6. A user-friendly application was created that prompts for a player's name and then prints their entire schedule using a stored procedure built off of the solution to Question 4-b from Assignment 3, whose query is shown after the application's below.

```
[graya17@prclab1 HW4]$ python Q6.py
━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━

  Hello!

  This application is for players within the Fall 2019 Soccer Tournament.

  You can find out your schedule for this tournament along with information such as
  who is coaching your team for the game, what team you are playing against, and if it
  is your responsibility to bring snacks for the game or not.

  To search the database please enter your full name, you being a player in the tournament,
  and press the ENTER key.
  Once you press the ENTER key you will be shown a list of your schedule for the tournament
  and also be able to choose what information you would like to view.

  Good luck and have fun!

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  Please type your first and last name here: Luca Pozzi

━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━

    Hi, Luca Pozzi, here is your schedule for the Fall 2019 Soccer Tournament:
Game #1: You are playing against SpaceX.
         Your game is scheduled for:  2019-09-07 08:00:00.

         Would you like to view more information about this game?

  Type 'yes' or 'no' : yes

  Type 'coach' to see who is coaching your game, 'snack' to see if you are bringing snacks, or 'nevermind' : coach

   Travis Kalanick is coaching your game against SpaceX.

  Would you like to view more information about this game?

   Type 'yes' or 'no' : yes

  Type 'coach' to see who is coaching your game, 'snack' to see if you are bringing snacks, or 'nevermind' : snack

   You are scheduled to bring snacks to the game against SpaceX.

  Would you like to view more information about this game?

   Type 'yes' or 'no' : no
Game #2: You are playing against Microsoft.
         Your game is scheduled for:  2019-09-07 09:00:00.

         Would you like to view more information about this game?

  Type 'yes' or 'no' : no

Game #3: You are playing against Google.
         Your game is scheduled for:  2019-09-07 10:00:00.

         Would you like to view more information about this game?

  Type 'yes' or 'no' : no

Game #4: You are playing against NASA.
         Your game is scheduled for:  2019-09-07 11:00:00.

         Would you like to view more information about this game?

  Type 'yes' or 'no' : yes

  Type 'coach' to see who is coaching your game, 'snack' to see if you are bringing snacks, or 'nevermind' : snack

   You are not scheduled to bring snacks to the game against NASA.

  Would you like to view more information about this game?

   Type 'yes' or 'no' : yes
```

```
   Type 'coach' to see who is coaching your game, 'snack' to see if you are bringing snacks, or 'nevermind' : nevermind

Game #5: You are playing against Intel.
        Your game is scheduled for:  2019-09-07 12:00:00.

        Would you like to view more information about this game?

   Type 'yes' or 'no' : no


         Thank you and good luck in all your games!
```

```
mysql> CALL playerSchedule('Luca Pozzi');
+------------+-----------+---------------------+-------+-----------------+
| playerName | against   | gameTime            | snack | coachName       |
+------------+-----------+---------------------+-------+-----------------+
| Luca Pozzi | SpaceX    | 2019-09-07 08:00:00 |     1 | Travis Kalanick |
| Luca Pozzi | Microsoft | 2019-09-07 09:00:00 |     1 | Travis Kalanick |
| Luca Pozzi | Google    | 2019-09-07 10:00:00 |     1 | Travis Kalanick |
| Luca Pozzi | NASA      | 2019-09-07 11:00:00 |     0 | Travis Kalanick |
| Luca Pozzi | Intel     | 2019-09-07 12:00:00 |     0 | Travis Kalanick |
+------------+-----------+---------------------+-------+-----------------+
5 rows in set (0.01 sec)

Query OK, 0 rows affected (0.01 sec)
```