ITEC 3335
Database Development
Fall 2019
Homework #8

Embedded SQL in Python

Write a simple Python program, h8.py, to connect to the local database toyu to provide information. You must use PyMySQL driver for this assignment. When your program is executed it provides three choices:

```
..>h8.py

Enter your choice number:
    1. All departments
    2. Single department
    3. quit
>
```

If the user selects '1', your program shows the result and then the choices as below:

```
Enter your choice number:
    1. All departments
    2. Single department
    3. quit
> 1
Departments:
------------
ACCT(Accounting) in school of Business has 0 majors.
ARTS(Arts) in school of Human Sciences and Humanities has 2 majors.
ENGL(English) in school of Human Sciences and Humanities has 0 majors.
CINF(Computer Information Systems) in school of Science and Engineering has 2 majors.
CSCI(Computer Science) in school of Science and Engineering has 3 majors.
ITEC(Information Technology) in school of Science and Engineering has 2 majors.
MATH(Mathematics) in school of Science and Engineering has 0 majors.

Enter your choice number:
    1. All departments
    2. Single department
    3. quit
>
```

If the user select '2', your program prompts for the department code, lists the result and then the choices again as show below.

```
Enter your choice number:
    1. All departments
    2. Single department
    3. quit
> 2
Enter a department code (e.g. ITEC, CSCI): CSCI
Number of faculty in the department CSCI:
----------------------------------------------------
Professor: 1 faculty.
Associate Professor: 1 faculty.
```

```
Unranked: 1 faculty.
Assistant Professor: 1 faculty.

Enter your choice number:
    1. All departments
    2. Single department
    3. quit
>
```

If the user enters a choice other than '1' or '2' (such as '3'), the program terminates.

Your program can use the file:

dbconfig.py:

```
import configparser

#  simplistic and no error handling.
def get_mysql_param(filename='dbconfig.ini', section='mysql'):

    config = configparser.ConfigParser()
    config.read(filename)

    return config['mysql']
```

This py program parses dbconfig.ini:

```
[mysql]
host = localhost
database = toyu
user = your_local MySQL_account_in
password = your_local_MySQL_account_credential
```

Turn in a log of the output and the python program h8.py of the following sequence.

1. Choice 2
2. CSCI
3. Choice 2
4. ITEC
5. Choice 2
6. CINF
7. Choice 1
8. Choice 3

Your TA should be able to run your python program locally using the local MySQL credential.

Submit the homework through Blackboard using the usual file naming convention.