第二次homework

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第1关：MySQL数据库连接

```
# coding=utf-8
import pymysql
def connect():
# 请在下面添加连接数据库的代码，完成相应功能
# ###### Begin ######
    conn = pymysql.connect(host='localhost',user='root',passwd='123123',charset='utf8')
####### End #######
####### 请不要修改以下代码 #######
    return conn.get_host_info()
```

第2关：数据库与数据表创建

```
# coding = utf-8

# 连接数据库，建立游标cursor
import pymysql

def create():
    conn = pymysql.connect(host='localhost', user='root', passwd='123123', charset='utf8')
    cursor = conn.cursor()
    # -----------Begin----------
    # 创建enroll数据库
    cursor.execute('create database enroll')

    conn.select_db('enroll')
    # 创建nudt数据表
    cursor.execute('create table nudt (year int,provice varchar(100),firstBatch int,gcMax int,gcMin
int, xlMax int, xlMin int, xlMean int)')
    # ------------End-----------
```

第3关：批量数据入库与检索

```
import pymysql

def insert(year,province,firstBatch,gcMax,gcMin,gcMean,xlMax,xlMin,xlMean):
    conn = pymysql.connect(host='localhost', user='root', passwd='123123', charset='utf8')
    cursor = conn.cursor()
    conn.select_db('enroll')
    # -----------Begin----------
    # 请在下面输入插入数据的语句，完成相应功能
    sql = "insert into %s (year,province,firstBatch,gcMax,gcMin,gcMean,xlMax,xlMin,xlMean)
        values ('%s','%s','%s','%s','%s','%s',%s,%s,%s)" %
        ('nudt',year,province,firstBatch,gcMax,gcMin,gcMean,xlMax,xlMin,xlMean)
    cursor.execute(sql)
    # ------------End-----------
```

```
    # 提交数据到数据库
    conn.commit()
    # 关闭数据库连接
    cursor.close()
    conn.close()

def select():
    conn = pymysql.connect(host='localhost', user='root', passwd='123123', charset='utf8')
    cursor = conn.cursor()
    conn.select_db('enroll')
    # -----------Begin----------
    # 请在下面输入查询数据的语句，完成相应功能
    sql = 'select * from %s' % 'nudt'
    cursor.execute(sql)
    # 请在下面输入获取数据的语句，完成相应功能
    records = cursor.fetchall()
    # ------------End-----------
    for record in records:
        print(record)

    # 关闭数据库连接
    cursor.close()
    conn.close()
```

第4关：多表创建与连接查询

```
import pymysql

def create(cursor):
    # -----------Begin----------
    # 创建provincialEntryScore表
    sql = 'create table provincialEntryScore (year int,province varchar(100),entryScore int)'
    cursor.execute(sql)
    # 创建nudtTechScore表
    sql = 'create table nudtTechScore (year int,province varchar(100),techMax int,techMin
int,techMean int)'
    cursor.execute(sql)
    # 创建nudtMilScore表
    sql = 'create table nudtMilScore (year int,province varchar(100),milMax int,milMin
int,milMean int)'
    cursor.execute(sql)
    # ------------End-----------

def insert(cursor,year,province,entryScore,techMax,techMin,techMean,milMax,milMin,milMean):
    # -----------Begin----------
    # 请在下面输入将数据插入provincialEntryScore表中的语句
    sql = "insert into %s (year,province,entryScore) values ('%s','%s','%s')" %
('provincialEntryScore',year,province,entryScore)
    cursor.execute(sql)
    # 请在下面输入将数据插入nudtTechScore表中的语句
    sql = "insert into %s (year,province,techMax,techMin,techMean) values ('%s','%s','%s','%s','%s')" %
('nudtTechScore',year,province,techMax,techMin,techMean)
```

```
    cursor.execute(sql)
    # 请在下面输入将数据插入nudtMilScore表中的语句
    sql = "insert into %s (year,province,milMax,milMin,milMean) values ('%s','%s','%s','%s','%s')" %
('nudtMilScore',year,province,milMax,milMin,milMean)
    cursor.execute(sql)
    # ------------End-----------

def selectAll(cursor):
    # -----------Begin----------
    # 请在下面输入多表直接汇总的语句
    sql = "select * from provincialEntryScore,nudtTechScore,nudtMilScore"
    cursor.execute(sql)
    records = cursor.fetchall()
    return records
    # ------------End-----------

def selectEqual(cursor):
    # -----------Begin----------
    # 请在下面输入等值连接的语句
    sql = "select * from provincialEntryScore A,nudtTechScore B,nudtMilScore C where A.year =
B.year and B.year= C.year and A.province = B.province and B.province = C.province"
    cursor.execute(sql)
    records = cursor.fetchall()
    return records
    # ------------End-----------

def selectNatural(cursor):
    # -----------Begin----------
    # 请在下面输入自然连接的语句
    sql ="select A.entryScore,B.techMax,B.techMin,B.techMean,C.milMax,C.milMin,C.milMean
from provincialEntryScore A,nudtTechScore B,nudtMilScore C"
    cursor.execute(sql)
    records = cursor.fetchall()
    return records
    # ------------End-----------
```