

# PyMySQL模块

NSD python

# 安装



# 下载

- 官方站点

<https://pypi.python.org>

- PyMySQL是Python中操作MySQL的模块，其使用方法和MySQLdb几乎相同



# 安装

- 安装依赖包

```
[root@localhost packages]# yum install -y python-devel mysql-devel gcc
```

- 安装

```
[root@localhost packages]# pip3 install PyMySQL
```

```
[root@localhost packages]# pip3 install MySQL-python # python2
```



# PyMySQL应用



# 连接数据库

- 创建连接是访问数据库的第一步

```
conn = pymysql.connect(host='127.0.0.1', port=3306, user='root',  
passwd='tedu.cn', db='tkq1', charset='utf8')
```



# 游标

- 游标 ( cursor ) 就是游动的标识
- 通俗的这么说，一条sql取出对应n条结果资源的接口/句柄，就是游标，沿着游标可以一次取出一行

```
cursor = conn.cursor()
```



# 插入数据

- 对数据库表做修改操作，必须要commit

```
sql1 = "insert into departments(dep_name) values(%s)"
result = cur.execute(sql1, ('development',))
```

```
sql2 = "insert into departments(dep_name) values(%s)"
data = [('hr',), ('op',)]
result = cur.executemany(sql2, data)
```

```
sql3 = "insert into departments(dep_name) values(%s)"
data = [('行政',), ('财务',), ('运营',)]
result = cur.executemany(sql3, data)
```

```
conn.commit()
```





# 查询数据

- 可以取出表中一条、多条或全部记录

```
sql4 = "select * from departments"  
cur.execute(sql4)  
result = cur.fetchone()  
print(result)
```

```
result2 = cur.fetchmany(2)  
print(result2)
```

```
result3 = cur.fetchall()  
print(result3)
```



# 移动游标

- 如果希望不是从头取数据，可以先移动游标

```
cur.scroll(1, mode="relative")  
cur.scroll(2, mode="absolute")
```

```
sql5 = "select * from departments"  
cur.execute(sql5)  
cur.scroll(3, mode='absolute')  
result4 = cur.fetchmany(2)  
print(result4)
```



# 修改数据

- 通过update修改某一字段的值

```
sql6 = "update departments set dep_name=%s where dep_name=%s"  
result = cur.execute(sql6, ('operations', 'op'))  
print(result)  
conn.commit()
```



# 删除记录

- 通过delete删除记录

```
sql7 = "delete from departments where dep_id=%s"  
result = cur.execute(sql7, (6,))  
print(result)  
conn.commit()
```



# 练习

- 向employees和salary表中添加数据

```
sql8 = "insert into employees(name, genda, phone, dep_id) values(%s, %s, %s, %s)"
```

```
data = ('bob', 'male', '15011223344', 3)
```

```
cur.execute(sql8, data)
```

```
sql9 = "insert into salary(date, emp_id, basic, extra) values(%s, %s, %s, %s)"
```

```
data = (time.strftime('%Y-%m-%d'), 1, 10000, 5000)
```

```
result = cur.execute(sql9, data)
```

```
conn.commit()
```

