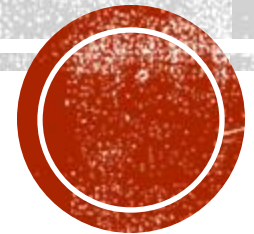


DR09.02 PYTHON AND DB

Data Representation

Andrew.Beatty@atu.ie



MYSQL CONNECTOR

- We will use mysql's mysql-connector
- Install

```
pip install mysql-connector
```



USE

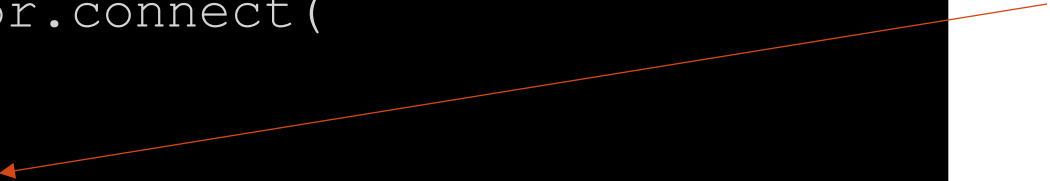
```
import mysql.connector

mydb = mysql.connector.connect(
    host="localhost",
    user="???",
    password="???",
    database="???"
)

mycursor = mydb.cursor()
sql="some sql"
mycursor.execute(sql)

mydb.close()
mycursor.close()
```

These could be
read in from a
configuration file



PREVENT SQL INJECTION

```
sql="insert into student (name, address) values (%s,%s)"  
values = ("Mary","Galway")  
  
cursor.execute(sql, values)
```



COMMIT UPDATE FUNCTIONS

```
import mysql.connector
db = mysql.connector.connect(
    host="localhost", user="root",
    password="", database="datarepresentation"
)
cursor = db.cursor()
sql="insert into student (name, address) values (%s,%s)"
values = ("Mary","Galway")
cursor.execute(sql, values)

db.commit()
cursor.close()
db.close()
```



GET DATA OUT

```
#get connection code here
```

```
cursor = db.cursor()
```

```
sql="select * from student where id = %s"
```

```
values = (1,)
```

```
cursor.execute(sql, values)
```

```
result = cursor.fetchall()
```

```
for x in result:
```

```
    print(x)
```

```
cursor.close()
```

```
db.close()
```

Can also use
fetchOne()

A tuple





PUT INTO A FILE THAT CAN BE REUSED

- Make a class put all the functions into it
- Make an instance of that class
- Import into another file (will be flask later)





IN CONCLUSION

- You can connect to a database.
- Databases are a standard way of storing data

Later

- Putting this into our flask application
- Configuration files
- This has only one connection
- There are other frameworks out there (eg sqlalchemy)

