Lecture: SQL and Python

connecting bridge

Python — SQL Alchemy — SQL

(Python Library)

```
import os
from sqlalchemy import create_engine
from sqlalchemy.orm import
                    scoped_session,
                    sessionmaker
```

creates an engine which takes care of interactions with DataBase

```
engine = create_engine ( os.getenv
                    ("DATABASE_
                     URL") )
```

environment variable (set in terminal)

```
db = scoped_session ( sessionmaker
                    (bind = engine) )
```

selecting data

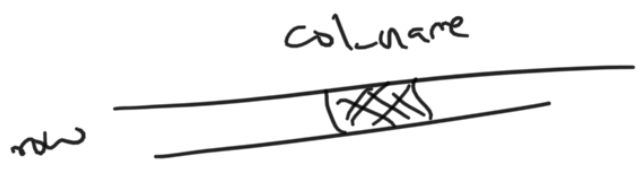
```
my_data =
db.execute ( " SQL_command")
```

- **fetch all ( )**
  (can use .fetchone() etc. -) — Returns NONE if no result found

my_data = list of all rows that SQL returns...

for row in my_data:

row.col_name ← gives you

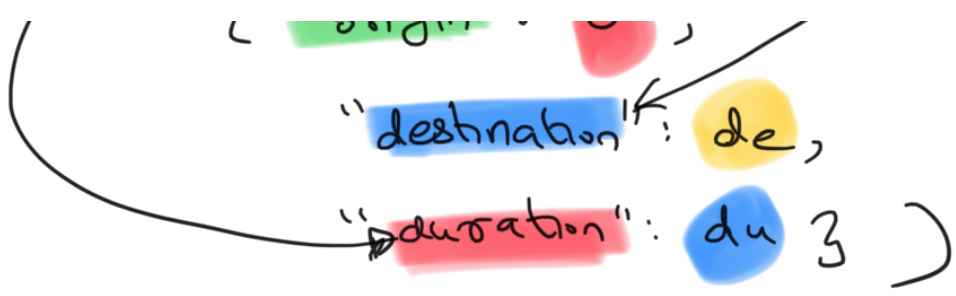


inserting data

csv file ⟶ python

```
import csv
f = open("flights.csv")
reader = csv.reader(f)
for o, de, du in reader:
    db.execute("INSERT INTO flights (origin, destination, duration) VALUES (:origin, :destination, :duration)",
               {"origin": o, "destination": de, "duration": du})
```

placeholders



db.commit()

didn't need it for reading data...

till db.commit(), commands are not run!!