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SER 401

Task #61

Setup

pip install sqlalchemy

Connecting to SQLite Database

```
from sqlalchemy import create_engine
```

```
engine = create_engine('sqlite:///college.db', echo = True)
```

Engine Methods

connect()

Returns connection object

execute()

Executes a SQL statement construct

begin()

Returns a context manager delivering a Connection with a Transaction established. Upon successful operation, the Transaction is committed, else it is rolled back

dispose()

Disposes of the connection pool used by the Engine

driver()

Driver name of the Dialect in use by the Engine

table_names()

Returns a list of all table names available in the database

transaction()

Executes the given function within a transaction boundary

Creating Tables

```
from sqlalchemy import create_engine, MetaData, Table, Column, Integer, String
engine = create_engine('sqlite:///college.db', echo = True)
meta = MetaData()
```

```
students = Table(
    'students', meta,
    Column('id', Integer, primary_key = True),
    Column('name', String),
    Column('lastname', String),
)
meta.create_all(engine)
```

Insert

```
ins = students.insert()
'INSERT INTO students (id, name, lastname) VALUES (:id, :name, :lastname)'
```

Select

```
s = students.select()
result = conn.execute(s)
```