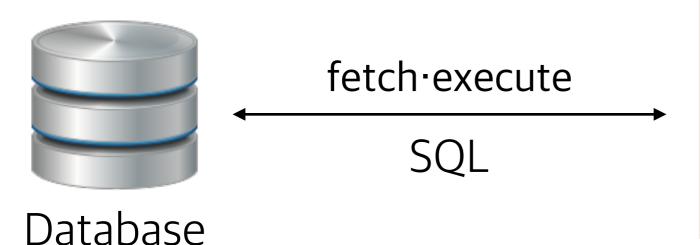


ORM (Feat. SQLAlchemy)

jangjunhajangjunha113@gmail.com>

(거의) 항상하는 일



```
class User {
  int id
  string username
  string password
}
```

view edit new remove

(거의) 항상하는 일



Database

SELECT username, password FROM users
WHERE status = 'A';

username	password
jangjunha	11223344
heegyu83	32231422

```
class User {
  int id
  string username
  string password
}
```

view edit new remove

ORM

Object-relational mapper

- JAVA Hibernate
- Python SQLAlchemy, Django ORM



"SQLAlchemy is the **Python SQL toolkit** and **Object Relational Mapper** that gives application developers the full power and flexibility of SQL."

http://www.sqlalchemy.org/

Quickstart



http://flask-sqlalchemy.pocoo.org/2.1/quickstart/

덧글 기능을 ORM을 사용해서 다시 만들어보자

Flask-SQLAIchemy 설치

> pip install Flask-SQLAlchemy

Setup

```
from flask_sqlalchemy import SQLAlchemy

app = Flask(__name__)
app.config['SQLALCHEMY_DATABASE_URI'] = 'sqlite:///yourdb.db'
db = SQLAlchemy(app)
```

Model 만들기

```
class Message(db.Model):
    id = db.Column(db.Integer, primary_key=True)
    title = db.Column(db.Text, nullable=False)
    content = db.Column(db.Text, nullable=False)

def __init__(self, title, content):
    self.title = title
    self.content = content
```



```
> python
>>> from application import db
>>> db.create_all()
```

덧글 생성

덧글 조회

comments = Message.query.order_by('-id').all()

실습

- 회원가입 기능을 추가해보자
- 필수:
 - username (아이디)
 - password (비밀번호)

<개인정보 침해 사고 관련 공지 드립니다>

. . .

비밀번호는 암호화되어있어 안전합니다.

. . .

비밀번호 암호화

- werkzeug.security.generate_password_hash
- werkzeug.security.check_password_hash

hashed_password = generate_password_hash(password)

check_password_hash(hashed_password, password)

비밀번호 암호화

• 단방향 암호화

- Sunrin
- -> 4204dc8d9919cf09c150f12f1446f286c4171db03a6ea841165d2918e254994a

비밀번호 암호화

김종수, D2 블로그 <안전한 패스워드 저장>

http://d2.naver.com/helloworld/318732

SQL Injection

```
username = request.form['username']
sql = "SELECT * FROM user WHERE username='%s'" % username
db.execute(sql)
```

```
username = request.form['username']

sql = "SELECT * FROM user WHERE username='?'"
db.execute(sql, (username))
```

Transaction



thinkpanama, <ATM Machines in Panama>. https://www.flickr.com/photos/23065375@N05/2235529194.

다음 이 시간에

- Cookie / Session
- 로그인
- ・내가 쓴 글 보기 / 얘가 쓴 글 보기