

GraphQL API Example – part 3

Django graphene – 조회,등록,수정,삭제 graphql

COP실전학습용 – www.globalintelligence.kr

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Source download

COP → Data Lab. → 7번의 FILE을 다운로드 받는다.

www.globalintelligence.kr

The screenshot shows the ABCYO.datalab website. On the left, there are several university logos with a 'COP' button circled in red. A red arrow points from this button to the 'Data Lab.' dropdown menu in the top navigation bar. The dropdown menu is open, showing a list of projects. The 'FILE' button for 'DjangoBoardAdvanced.zip' is circled in red. Below the table, there is a list of files to be downloaded.

Project Name	Source	LINK	FILE	Downloaded File
13. 대기오염 예측 - 다변수 Keras LSTM	GNC	LINK	FILE	LSTM_Multivariate..zip
12. Python 딥러닝 분석	GNC	LINK	FILE	PythonUser.zip
11. Drag n Drop with JavaScript	광운대학교	LINK	FILE	drag-n-drop-master.zip
10. Markdown예제 simplemd-markdown-editor (HTML only)	광운대학교	LINK	FILE	markdown-simplemd-markdown-editor.zip
9. AJAX example - Vanilla Javascript	광운대학교	LINK	FILE	ajaxcrash.zip
8. 분석서버 Open source	강원대학교	LINK	FILE	MLServerOpen.zip
7. 장고(Django) 게시판 - Advanced	GNC	LINK	FILE	DjangoBoardAdvanced.zip
6. 장고(Django) 게시판 - MariaDB	강원대학교	LINK	FILE	DjangoBoard.zip

- album
- board
- chart
- config
- static
- templates
- Vesperr
- DjangoBoardAdvanced.zip
- Django게시판(MariaDB).pdf
- Django시각화.pdf
- Django앨범(MariaDB).pdf
- Django학습_GraphQL_API.pdf
- manage.py
- readme.txt
- sql_mariadb.txt
- test1.py

- ✓ 설명
- ✓ DB source (MariaDB)

Review – Part 1

Data (게시판 테이블)

#	이름	데이터 유형	길이/설정	부호 ...	NU
1	b_no	INT	11	<input type="checkbox"/>	
2	b_title	VARCHAR	255	<input type="checkbox"/>	
3	b_note	VARCHAR	4096	<input type="checkbox"/>	
4	parent_no	INT	11	<input type="checkbox"/>	
5	b_writer	VARCHAR	50	<input type="checkbox"/>	
6	b_count	INT	11	<input type="checkbox"/>	
7	b_date	TIMESTAMP		<input type="checkbox"/>	

ORM

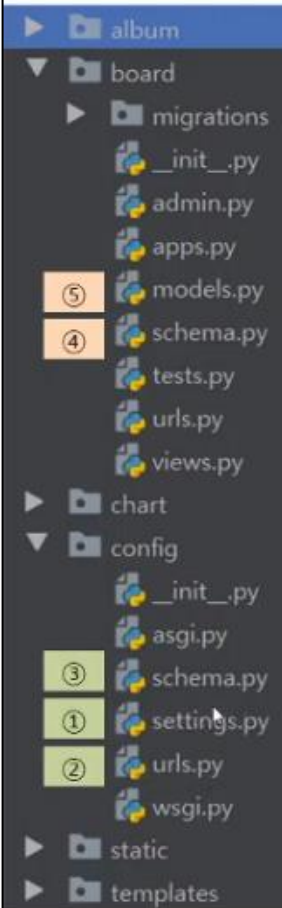
```
from django.db import models

class Board(models.Model):
    b_no = models.AutoField(db_column='b_no', primary_key=True)
    b_title = models.CharField(db_column='b_title', max_length=255)
    b_note = models.TextField(db_column='b_note', )
    b_writer = models.CharField(db_column='b_writer', max_length=50)
    parent_no = models.IntegerField(db_column='parent_no', default=0)
    b_count = models.IntegerField(db_column='b_count', default=0)
    b_date = models.DateTimeField(db_column='b_date', )

    class Meta:
        managed = False
        db_table = 'board'

    def __str__(self):
        return "제목 : " + self.b_title + ", 작성자 : " + self.b_writer
```

Django source 구성



album

board

migrations

__init__.py

admin.py

apps.py

models.py

schema.py

tests.py

urls.py

views.py

chart

config

__init__.py

asgi.py

settings.py

urls.py

wsgi.py

static

templates

①

```
INSTALLED_APPS = [
    'graphene_django',
]
```

②

```
from graphene_django.views import GraphQLView
from .schema import schema

urlpatterns = [
    path('graphql', GraphQLView.as_view(
        graphiql = True,
        schema = schema
    )),
]
```

/graphql 로 접속하게 된다.

schema.py 를 사용
graphiql = True

③

```
import graphene
from board.schema import BoardQuery

class Query(
    BoardQuery,
):
    pass

schema = graphene.Schema(query=Query)
```

대상을 설정한다

④

```
import graphene
from graphene_django.types import DjangoObjectType
from .models import Board

class BoardType(DjangoObjectType):
    class Meta:
        model = Board

class BoardQuery(graphene.ObjectType):
    allBoard = graphene.List(BoardType)

    def resolve_allBoard(self, info, **kwargs):
        return Board.objects.all()
```

Django 모델을 연결 :
Type과 Query를 정의

```
class Board(models.Model):
    b_no = models.AutoField(db_column='b_no', primary_key=True)
```

Query

```
class Board(graphene.ObjectType):
    b_no = graphene.ID()
    b_title = graphene.String()
    b_writer = graphene.String()
    b_note = graphene.String()
    d_count = graphene.Int()
    b_date = graphene.DateTime()

class Query(graphene.ObjectType):
    boards = graphene.List(Board)

    def resolve_boards(self, info):
        return [
            Board(b_title='Title입니다.1', b_writer='고길동', b_note='내용입니다. 1', b_count=0, b_date=datetime.now()),
            Board(b_title='Title입니다.2', b_writer='홍길동', b_note='내용입니다. 2', b_count=0, b_date=datetime.now()),
            Board(b_title='Title입니다.3', b_writer='타이손', b_note='내용입니다. 3', b_count=0, b_date=datetime.now())
        ]

schema = graphene.Schema(query=Query)

result = schema.execute(
    ...
    {
        boards {
            bTitle
        }
    }
    ...
)
```

Mutation

```
class CreateBoard(graphene.Mutation):
    class Arguments:
        btitle = graphene.String()

    board = graphene.Field(Board)

    def mutate(self, info, btitle):
        if info.context.get('is_vip'):
            btitle = btitle.upper()

        board = Board(btitle=btitle)
        return CreateBoard(board=board)

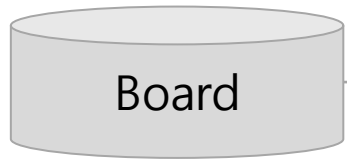
class Mutations(graphene.ObjectType):
    create_user = CreateBoard.Field()

schema = graphene.Schema(mutation=Mutations)

result = schema.execute(
    ...
    mutation createUser ($btitle: String) {
        createUser(btitle: $btitle) {
            board {
                btitle
            }
        }
    }
    ...
    variable_values={'btitle': '제목45w3535322... Time is Gold'},
    context={'is_vip': True}
)

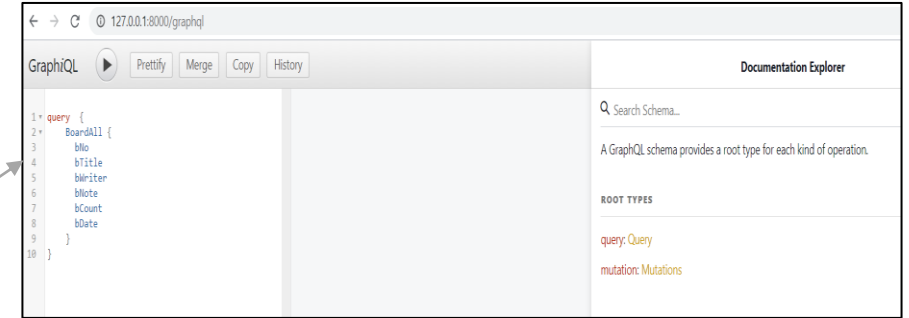
print(result)
```

GraphQL API와 게시판

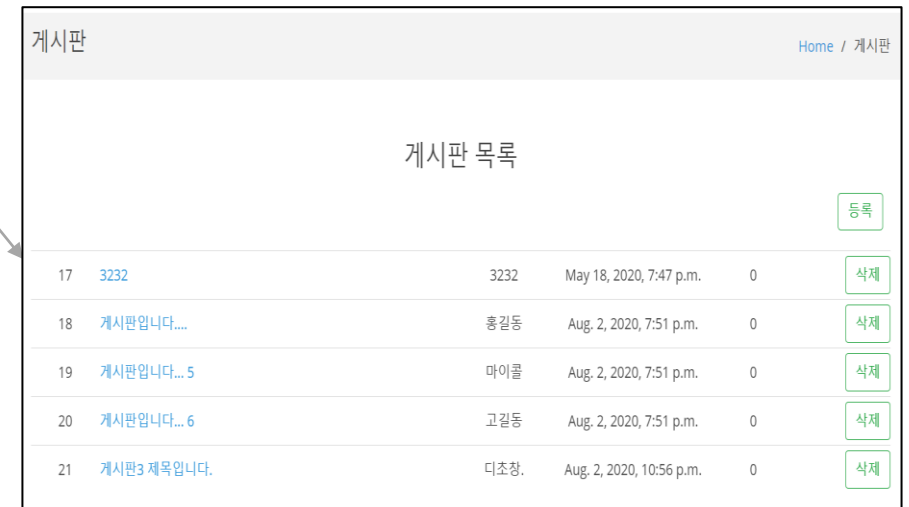


#	이름	데이터 유형
1	b_no	INT
2	b_title	VARCHAR
3	b_note	VARCHAR
4	parent_no	INT
5	b_writer	VARCHAR
6	b_count	INT
7	b_date	TIMESTAMP
8	usage_flag	VARCHAR

Django 웹서버



게시판 목록 조회하기 - query
게시판 한 건 조회하기 - query
입력 - mutate
수정 - mutate
삭제 - mutate



A screenshot of a web application showing a list of board posts. The page has a header "게시판" and a breadcrumb "Home / 게시판". The main content is titled "게시판 목록". There is a "등록" (Register) button in the top right. The table lists 5 posts with columns for index, title, author, date, and count. Each row has a "삭제" (Delete) button.

Index	Title	Author	Date	Count	Action
17	3232	3232	May 18, 2020, 7:47 p.m.	0	삭제
18	게시판입니다....	홍길동	Aug. 2, 2020, 7:51 p.m.	0	삭제
19	게시판입니다... 5	마이콜	Aug. 2, 2020, 7:51 p.m.	0	삭제
20	게시판입니다... 6	고길동	Aug. 2, 2020, 7:51 p.m.	0	삭제
21	게시판3 제목입니다.	디조창.	Aug. 2, 2020, 10:56 p.m.	0	삭제

GraphQL – Query, Mutation, Subscription

Query

GraphiQL

Prettify

Merge

Copy

History

```
1 query {
2   BoardAll {
3     bNo
4     bTitle
5     bWriter
6     bNote
7     bCount
8     bDate
9   }
10 }
```

```
{
  "data": {
    "BoardAll": [
      {
        "bNo": "5",
        "bTitle": "제목5입니다.",
        "bWriter": "고길동",
        "bNote": "내용입니다....",
        "bCount": 1,
        "bDate": "2020-09-21T15:46:46+00:00"
      }
    ]
  }
}
```

< Schema

Search Query...

No Description

FIELDS

BoardAll: [BoardType]

BoardDetail(bNo: Int!): BoardType

Mutations

GraphiQL

Prettify

Merge

Copy

History

```
1 mutation BoardCreate {
2   boardCreate(bTitle: "명절 잘 보내세요.", bWriter: "한가위", bNote: "Merry thanks giving day!") {
3     board {
4       bNo
5       bTitle
6       bWriter
7       bNote
8       bCount
9     }
10 }
11 }
```

```
{
  "data": {
    "boardCreate": {
      "board": {
        "bNo": "21",
        "bTitle": "명절 잘 보내세요.",
        "bWriter": "한가위",
        "bNote": "Merry thanks giving day!",
        "bCount": 0
      }
    }
  }
}
```

< Schema

Mutations

Search Mutations...

No Description

FIELDS

boardCreate(
 bNote: String
 bTitle: String
 bWriter: String
): BoardCreate

boardDelete(bNo: Int): BoardDelete

boardUpdate(
 bNo: Int
 bNote: String
 bTitle: String
 bWriter: String
): BoardUpdate