

복습

프로젝트 생성과정 1~6 실행

models.py 작성

-> make migrations

-> python manage.py migrate

라이브러리 설치

pip install ipython

pip install django-extensions

settings.py -> install app

```
INSTALLED_APPS = [  
    'articles',  
  
    'django_extensions',  
  
    'django.contrib.admin',  
    'django.contrib.auth',  
    'django.contrib.contenttypes',  
    'django.contrib.sessions',  
    'django.contrib.messages',  
    'django.contrib.staticfiles',  
]
```

웹 실행

```
python manage.py shell_plus
```

CRUD 작업 실행

CREATE

3가지 방법

```
1) 생성자 함수 호출 후 저장
```

```

In [2]: article = Article()

In [3]: article.title = "first"

In [4]: article.content = "django!"

In [5]: article.save()

2) 초기값과 함께 인스턴스 생성후 저장

In [6]: article = Article(title="second", content="django!!")

In [7]: article.save()

3) QuerySet API - create메소드 1,2와는 다르게 저장하지 않아도됨

In [8]: Article.objects.create(title="third", content="django!!!")

```

save()

객체를 DB에 저장함

데이터 생성을 해도 save()를 호출하지 않으면 db에 반영되지 않음

모델의 인스턴스를 생성한 후, 반드시 save() 호출

모델 완성

```

class Article(models.Model):
    title = models.CharField(max_length=10)
    content = models.TextField()
    created_at = models.DateTimeField(auto_now_add=True)
    updated_at = models.DateTimeField(auto_now=True)

    def __str__(self):
        return self.title;

```

```
python manage.py makemigrations
```

```
python manage.py migrate
```

CRUD - READ

all()

현재 쿼리셋의 복사본을 반환

```
Article.objects.all()
```

get()

주어진 조건에 해당하는 객체를 반환

찾을 수 없는 경우 DoesNotExist

둘 이상 찾은 경우 MultipleObjectsReturned 예외

"딱 하나만 있을 수 있는 목표를 찾는다" -> pk, id같은 "고유한" "Unique"한 데이터를 조회하는데 사용

```
Article.objects.get(content="django!!")

Article.objects.get(content="django!!!")
DoesNotExist: Article matching query does not exist.
찾을 수 없는 경우 DoesNotExist

Article.objects.get(pk=1)
Article.objects.get(id=1)

In [14]: Article.objects.get(content="django!!!")

MultipleObjectsReturned: get() returned more than one Article -- it returned 2!
```

get() vs filter()

filter -> "여러개를 조회"

```
Article.objects.filter(title="second")

In [16]: Article.objects.filter(content="django!!!")
Out[16]: <QuerySet [<Article: first>, <Article: third>]>
```

CRUD - UPDATE(변경)

인스턴스 생성때와 마찬가지로 인스턴스를 생성후 **변경후 저장**

```
In [8]: article = Article.objects.get(id=1)

In [12]: article.content = "django!!!"

In [13]: article.save()
```

CRUD - DELETE(삭제)

쿼리셋의 모든 행에 대해 삭제 쿼리를 수행후 삭제된 객체들을 포함시킨 딕셔너리를 반환

```
article = Article.objects.get(id=1)
article.delete()
```

어드민 등록

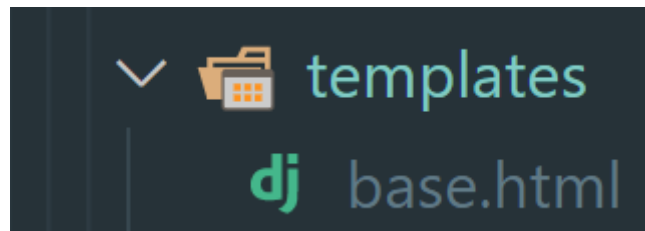
```
python manage.py createsuperuser
```

```
from django.contrib import admin
from .models import Article

# Register your models here.
admin.site.register(Article)
```

템플릿 상속

폴더 경로에 templates와 base.html 생성



```
<!doctype html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <title>Bootstrap demo</title>
    <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css"
rel="stylesheet" integrity="sha384-
rbsA2VBKQhggwzxH7pPCaAqO46MgnOM80zw1RWuH61DGLwZJEdK2Kadq2F9CUG65"
crossorigin="anonymous">
  </head>
  <body>

    <div class="container">
      {% block content %}

      {% endblock %}
    </div>
```

```

<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js" integrity="sha384-
kenU1KFdBIE4zVF0s0G1M5b4hcxpyD9F7jL+jjXkk+Q2h455rYXK/7HAuoJl+0I4"
crossorigin="anonymous"></script>
</body>
</html>

```

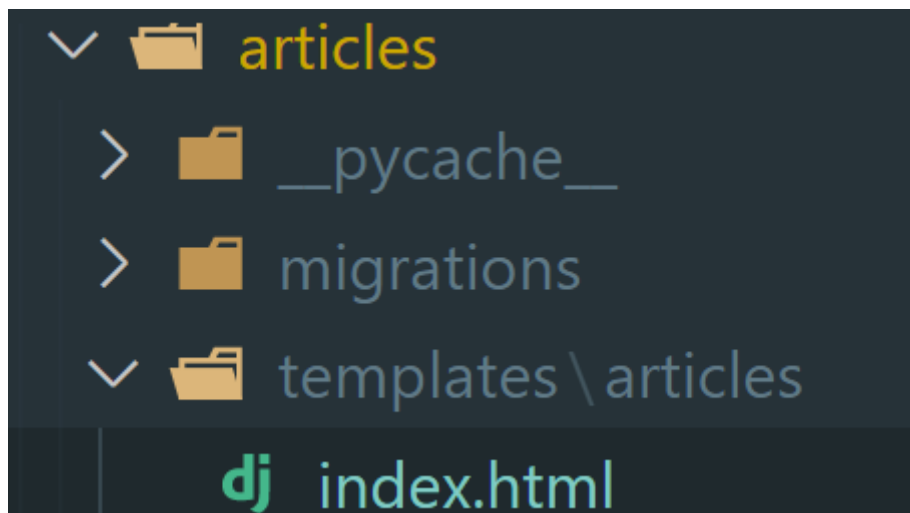
settings.py -> 'DIRS' 작성

```

{
    'BACKEND': 'django.template.backends.django.DjangoTemplates',
    'DIRS': [BASE_DIR / 'templates'],
    'APP_DIRS': True,
    'OPTIONS': {
        'context_processors': [
            'django.template.context_processors.debug',
            'django.template.context_processors.request',
            'django.contrib.auth.context_processors.auth',
            'django.contrib.messages.context_processors.messages',
        ],
    },
},
]

```

app local templates 생성



index.html

```

{% extends 'base.html' %}

{% block content %}
    <h1 class="text-center">Articles</h1>
{% endblock %}

```

프로젝트 url

```

from django.contrib import admin
from django.urls import path, include

urlpatterns = [
    path('admin/', admin.site.urls),
    path("articles/", include('articles.urls'))
]

```

articles url

```

from django.urls import path
from . import views

app_name = 'articles'
urlpatterns = [
    path("", views.index, name="index")
]

```

articles / views.py

```

from django.shortcuts import render

# Create your views here.
def index(request):
    return render(request, 'articles/index.html')

```

CRUD -> 전체 게시글 조회

articles/views.py

```

from django.shortcuts import render
from .models import Article

# Create your views here.
def index(request):
    articles = Article.objects.all()

    context = {
        'articles' : articles
    }

    return render(request, 'articles/index.html', context)

```

articles/templates/articles/index.html

```
{% extends 'base.html' %}

{% block content %}
<h1 class="text-center">Articles</h1>
<hr>
{% for article in articles %}
<p>글 번호 : {{ article.pk }}</p>
<p>글 제목 : {{ article.title }}</p>
<p>글 내용 : {{ article.content }}</p>
<hr>
{% endfor %}

{% endblock %}
```

CRUD - CREATE

articles / urls.py

```
from django.urls import path
from . import views

app_name = 'articles'
urlpatterns = [
    path("", views.index, name="index"),
    path('new/', views.new, name="new")
]
```

articles/views.py

```
def new(request):
    return render(request, 'articles/new.html')
```

articles / new.html

```
{% extends 'base.html' %}

{% block content %}

<h1 class="text-center">NEW</h1>

<form action="#" method="GET">
<label for="title">Title : </label>
<input type="text" name="title">
<br/>
<label for="content">Content : </label>
<textarea name="content" cols="30" row="5"></textarea>
<br>
<input type="submit">
</form>
<hr>
```

```
<a href="{% url 'articles:index' %}">[BACK]</a>
```

```
{% endblock %}
```

articles/index.html

```
{% extends 'base.html' %}
```

```
{% block content %}
```

```
<h1 class="text-center">Articles</h1>
```

```
<a href="{% url 'articles:new' %}">NEW</a>
```

```
<hr>
```

```
{% for article in articles %}
```

```
<p>글 번호 : {{ article.pk }}</p>
```

```
<p>글 제목 : {{ article.title }}</p>
```

```
<p>글 내용 : {{ article.content }}</p>
```

```
<hr>
```

```
{% endfor %}
```

```
{% endblock %}
```

articles/urls.py

```
from django.urls import path
```

```
from . import views
```

```
app_name = 'articles'
```

```
urlpatterns = [
```

```
    path("", views.index, name="index"),
```

```
    path('new/', views.new, name="new"),
```

```
    path('create/', views.create, name="create"),
```

```
]
```

articles/ views.py

```
def create(request):
```

```
    return render(request, 'articles/create.html')
```

articles / create.html

```
{% extends 'base.html' %}
```

```
{% block content %}
```

```
<h1 class="text-center">성공적으로 글이 작성되었습니다</h1>
```

```
{% endblock %}
```


articles/create.html

```
{% extends 'base.html' %}

{% block content %}
  <h1 class="text-center">성공적으로 글이 작성되었습니다</h1>
{% endblock %}
```