

Django에서 newyear 앱 만들기!!

1. FirstProject에서 새로운 app 생성하기

터미널 또는 프롬프트에서 `cd FirstProject/firstproject`로 파일로 들어간다.

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    JUPYTER

Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).
July 13, 2022 - 16:56:05
Django version 4.0.6, using settings 'firstproject.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
[13/Jul/2022 16:56:19] "GET /hello/cat HTTP/1.1" 200 325

* History restored

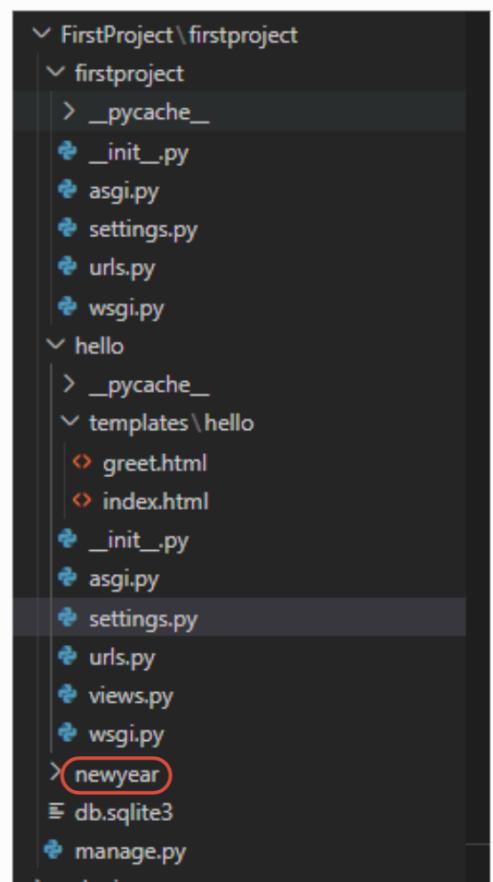
새로운 크로스 플랫폼 PowerShell 사용 https://aka.ms/powershell

PS C:\Users\woo\Desktop\HNU\program\KDT> cd FirstProject
PS C:\Users\woo\Desktop\HNU\program\KDT\FirstProject> cd firstproject
PS C:\Users\woo\Desktop\HNU\program\KDT\FirstProject\firstproject>
```

`python manage.py startapp newyear`로 새로운 app 파일을 생성한다

```
PS C:\Users\woo\Desktop\HNU\program\KDT> cd FirstProject
PS C:\Users\woo\Desktop\HNU\program\KDT\FirstProject> python manage.py startapp newyear
PS C:\Users\woo\Desktop\HNU\program\KDT\FirstProject>
```

그러면 오른쪽 그림처럼 FirstProject/firstproject 파일에 newyear라는 새로운 app 파일이 생성된다.



2. firstproject 파일에 setting.py에 새로운 app 파일 이름(newyear)을 적어준다.
(적어줘야 Django가 인식할 수 있다!)

The screenshot shows a file explorer on the left and a code editor on the right. The file explorer lists several projects and files, with 'FirstProject\firstproject' expanded to show its contents: __pycache_, __init__.py, asgi.py, settings.py, urls.py, and wsgi.py. The code editor displays the 'settings.py' file. A yellow box highlights the line 'INSTALLED_APPS = ['. Below it, another yellow box highlights the entry 'newyear', which is enclosed in square brackets. The rest of the code in the editor is standard Django configuration.

```
30
31     # Application definition
32
33 INSTALLED_APPS = [
34     'hello',
35     'newyear', // Yellow box highlights this line
36     'django.contrib.admin',
37     'django.contrib.auth',
38     'django.contrib.contenttypes',
39     'django.contrib.sessions',
40     'django.contrib.messages',
41     'django.contrib.staticfiles',
42 ]
43
44 MIDDLEWARE = [
45     'django.middleware.security.SecurityMiddleware',
```

3. firstproject 파일에 urls.py에 path('newyear/', include("newyear.urls")), 을
입력해서 newyear 앱의 urls.py에 연결되도록 한다.

The screenshot shows a file explorer on the left and a code editor on the right. The file explorer lists several projects and files, with 'FirstProject\firstproject' expanded to show its contents: firstproject, __pycache_, __init__.py, asgi.py, settings.py, urls.py (which is selected and highlighted in blue), and wsgi.py. The code editor displays the 'urls.py' file. A yellow box highlights the line 'path('newyear/', include("newyear.urls"))'. The rest of the code in the editor is standard Django URL configuration.

```
8     2. Add a URL to urlpatterns: path('', views.home, name='home')
9     Class-based views
10    1. Add an import: from other_app.views import Home
11    2. Add a URL to urlpatterns: path('', Home.as_view(), name='home')
12 Including another URLconf
13    1. Import the include() function: from django.urls import include, path
14    2. Add a URL to urlpatterns: path('blog/', include('blog.urls'))
15 """
16 from django.contrib import admin
17 from django.urls import include, path
18
19 urlpatterns = [
20     path('admin/', admin.site.urls),
21     path('hello/', include("hello.urls")),
22     path('newyear/', include("newyear.urls")),
23 ]
24
```

4. newyear 앱 폴더에 urls.py를 생성해주고, default url 패턴을 작성한다.

The screenshot shows the VS Code interface. On the left, the Explorer sidebar lists project files and folders. A red circle highlights the 'New File' icon (a plus sign inside a circle) at the top of the sidebar. An arrow points from this icon to the text '파일생성' (File Creation) in Korean. In the center, the code editor displays the contents of 'urls.py' for the 'newyear' application. The code defines a single URL pattern for the index view:

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

urlpatterns = [
    path("", views.index, name = "index")]
```

5. newyear 앱 폴더 내에 view.py에 아래 코드를 입력한다.

(newyear 앱은 오늘 날짜가 1월 1일이면 YES라고 하고, 아니면 NO라고 하는 프로그램이다.)

The screenshot shows the VS Code interface. The Explorer sidebar lists project files and folders, with 'views.py' currently selected. The code editor displays the contents of 'views.py' for the 'newyear' application. It contains a single function named 'index' that checks if the current date is January 1st and returns 'YES' or 'NO' accordingly:

```
from django.shortcuts import render
import datetime

# Create your views here.
def index(request):
    now = datetime.datetime.now()
    return render(request, "newyear/index.html", {
        "newyear": now.month == 1 and now.day == 1
    })
```

6. newyear 앱 폴더 내에 templates 폴더를 생성하고, 그 안에 newyear 폴더를 생성한다. newyear 폴더 안에 index.html을 생성한 후, 아래 코드를 입력한다.

The screenshot shows the VS Code interface with the following details:

- EXPLORER** sidebar:
 - KDT
 - _pycache_
 - 4_SPSS
 - 9_frontend
 - 10_webprogramming
 - djangovenv
 - FirstProject\firstproject
 - firstproject
 - hello
 - newyear
 - migrations
 - templates\newyear
 - index.html
 - _init_.py
 - admin.py
 - apps.py
 - models.py
 - tests.py
 - urls.py
 - views.py
 - db.sqlite3
 - manage.py
- views.py** tab: Shows code for a view function.
- index.html** tab: Shows the following HTML code with Django template tags:

```
<html lang = "en">
  <head>
    <title>New year</title>
  </head>
  <body>
    {% if newyear %}
      <h1>YES</h1>
    {% else %}
      <h1>NO</h1>
    {% endif %}
  </body>
</html>
```

!! Django html 설명 !!

{# #} 는 주석을 작성할 수 있는 태그이다.

({# coment %}...{# endcomment %} 로도 사용 가능하다.)

ex) {# 주석태그입니다. 이 글은 보이지 않습니다. #}

{{ }} 는 템플릿 변수로, view의 함수에서 html 문서로 객체나 변수 값을 전달할 때 사용한다.

ex) hello 앱 폴더 참고

```
<h1> Hello, {{name}}! </h1>
```

{% %} 는 템플릿 태그로, HTML 내에 프로그래밍 구문(제어 흐름) 작성시 사용된다.

ex 1) 반복문

```
{% for i in '12345' %}
  <h1> Hello, {{name}}! </h1>
{% endfor %}
```

ex 2) 조건문

```
{% if newyear %}
    <h1> YES </h1>
{% else %}
    <h1> NO </h1>
{% endif %}
```

7. CSS 적용하기

newyear 앱 폴더 내에 static 폴더를 생성하고, 그 안에 newyear 폴더를 생성한다. newyear 폴더 안에 styles.css을 생성한 후, 아래 코드를 입력한다.

The screenshot shows the VS Code interface with the following details:

- EXPLORER** sidebar: Shows the project structure with a tree view of files and folders.
- OPEN EDITORS** tab bar: Shows the current open files: views.py, urls.py, # styles.css, and index.html.
- styles.css** editor tab: Contains the following CSS code:


```
h1 {
    font-family: sans-serif;
    font-size: 90px;
    text-align: center;
```

index.html로 가서 {% load static %}로 static 파일을 로드한 후, 아래 코드를 입력한다. (Django html에서는 경로를 지정할 때, { % } 를 양 옆에 적어줘야 한다.)

The screenshot shows the VS Code interface with the following details:

- EXPLORER** sidebar: Shows the project structure with a tree view of files and folders.
- OPEN EDITORS** tab bar: Shows the current open files: views.py, urls.py, # styles.css, and index.html.
- index.html** editor tab: Contains the following Django template code:


```
{% load static %}

<html lang = "en">
    <head>
        <title>Is it New Year's?</title>
        <link href = "{% static 'newyear/styles.css' %}" rel = "stylesheet"/>
    </head>
    <body>
        {% if newyear %}
            <h1>YES</h1>
        {% else %}
            <h1>NO</h1>
        {% endif %}
    </body>
</html>
```

8. CSS를 적용하기 전에 Django 서버를 실행했다면 stop 한 후에 `python manage.py runserver`로 서버를 새로 실행해준다.

```
PS C:\Users\woo\Desktop\HNU\program\KDT\FirstProject\firstproject> python manage.py runserver
>>
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).
July 14, 2022 - 10:52:55
Django version 4.0.6, using settings 'firstproject.settings'
Starting development server at http://127.0.0.1:8000/
```

9. Django 서버 url `http://127.0.0.1:8000`에 `/newyear`을 입력하면 아래와 같이 나온다.

