Django 3.1

- Django 3.1 supports Python 3.6, 3.7, and 3.8.

- Asynchronous views and middleware support

- JSONField for all supported database backends

- DEFAULT_HASHING_ALGORITHM settings

- Django 3.1 supports MariaDB 10.2 and higher.

- The admin no longer supports the legacy Internet Explorer browser.

- The admin now has a sidebar on larger screens for easier navigation.

- The settings.py generated by the startproject command now uses pathlib.Path instead of os.path for building filesystem paths.

Features Deprecated in 3.1

- PASSWORD_RESET_TIMEOUT_DAYS setting is deprecated in favor of PASSWORD_RESET_TIMEOUT.

- The HttpRequest.is_ajax() method is deprecated.

- providing_args argument for Signal is deprecated.

- The passing of URL kwargs directly to the context by TemplateView is deprecated. Reference them in the template with view.kwargs instead.

- The NullBooleanField model field is deprecated in favor of BooleanField(null=True).

Asynchronous Views and Middleware

```python
# views.py
async def my_view(request):
    await asyncio.sleep(0.5)
    return HttpResponse('Hello, async world!’)
```

All asynchronous features are supported whether you are running under WSGI or ASGI mode.

If you make External HTTP calls from a view, You can use async View.

The ORM, cache layer, and several other parts of code that involve long-running network calls do not support async yet.

Pathlib

The settings.py generated by the startproject command now uses pathlib.Path instead of os.path for building filesystem paths.

```
# settings.py

import os

BASE_DIR = os.path.dirname(os.path.dirname(os.path.abspath(__file__)))

DATABASES = {
    'default': {
        'ENGINE': 'django.db.backends.sqlite3',
        'NAME': os.path.join(BASE_DIR, 'db.sqlite3'),
    }
}

BASE_DIR = Path(__file__).resolve(strict=True).parent.parent

'NAME': BASE_DIR / 'db.sqlite3',
```

The admin now has a sidebar

- The admin now has a sidebar on larger screens for easier navigation.

PASSWORD_RESET_TIMEOUT

- PASSWORD_RESET_TIMEOUT_DAYS = 3

- PASSWORD_RESET_TIMEOUT = 5000
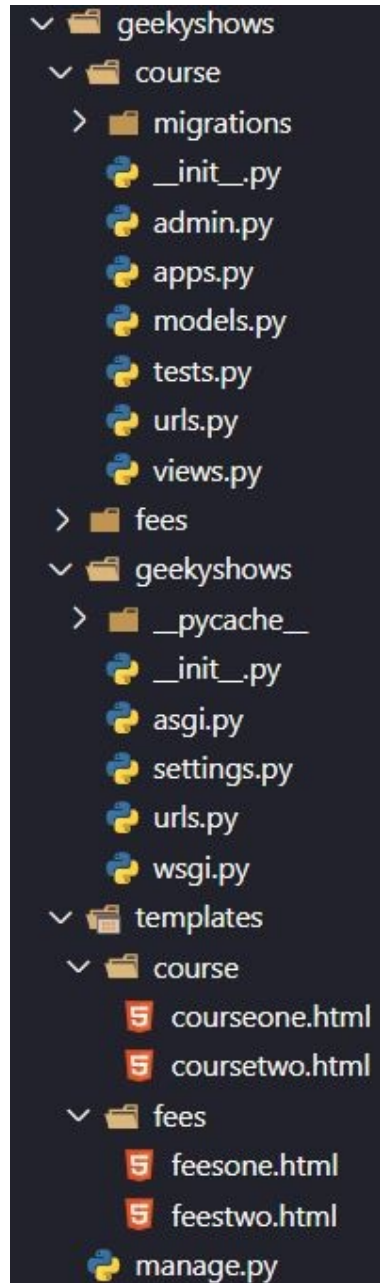
Templates inside Project

settings.py

Old Django Version 3.0
TEMPLATES_DIR = os.path.join(BASE_DIR, 'templates')

TEMPLATES_DIR = **BASE_DIR / 'templates'**

INSTALLED_APPS = [
    'course',
    'fees'
]

TEMPLATES = [
    {
    'DIRS': [TEMPLATES_DIR],
    'APP_DIRS': True,
    }
]

```
∨ 🖿 geekyshows
  ∨ 🖿 course
    > 🖿 migrations
      🐍 __init__.py
      🐍 admin.py
      🐍 apps.py
      🐍 models.py
      🐍 tests.py
      🐍 urls.py
      🐍 views.py
  > 🖿 fees
  ∨ 🖿 geekyshows
    > 🖿 __pycache__
      🐍 __init__.py
      🐍 asgi.py
      🐍 settings.py
      🐍 urls.py
      🐍 wsgi.py
  ∨ 🖿 templates
    ∨ 🖿 course
      5 courseone.html
      5 coursetwo.html
    ∨ 🖿 fees
      5 feesone.html
      5 feestwo.html
    🐍 manage.py
```

Static inside Project

settings.py

TEMPLATES_DIR = BASE_DIR / 'templates'

Old Django Version 3.0
STATIC_DIR = os.path.join(BASE_DIR, 'static')

STATIC_DIR = BASE_DIR / 'static'

INSTALLED_APPS = [
  'course'
]

TEMPLATES = [
 {
  'DIRS': [TEMPLATES_DIR]
 }
]

STATIC_URL = '/static/'
STATICFILES_DIRS = [STATIC_DIR]

File Tree (sidebar)

```
∨ 📁 geekyshows
  ∨ 📁 course
    > 📁 __pycache__
    > 📁 migrations
    ∨ 📁 templates \ course
        🔲 courseone.html
        🔲 coursetwo.html
      🐍 __init__.py
      🐍 admin.py
      🐍 apps.py
      🐍 models.py
      🐍 tests.py
      🐍 urls.py
      🐍 views.py
  > 📁 fees
  ∨ 📁 geekyshows
    > 📁 __pycache__
      🐍 __init__.py
      🐍 asgi.py
      🐍 settings.py
      🐍 urls.py
      🐍 wsgi.py
  ∨ 📁 static
    ∨ 📁 css
        🔲 style.css
    ∨ 📁 images
        🖼 love.jpg
  ∨ 📁 templates
      🔲 home.html
    💾 db.sqlite3
    🐍 manage.py
```