**Videofile:79**

**Codefile:ch69**

**Setup Django Async Server ASGI using Daphne**

## Setup Django Async Server (ASGI) using Daphne

Asgi is used for real time or live applications like gaming

Django channels is used for live application

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* **ASGI (Asynchronous Server Gateway Interface)** is the modern standard for handling **async communication** in Django (replacing the older WSGI for sync-only apps).
* It allows Django to support **real-time features** like WebSockets, chat apps, notifications, IoT, etc.
* **Daphne** is an ASGI server developed as part of Django Channels and is used to serve Django projects asynchronously.

### ✅ Why Use ASGI + Daphne?

* WSGI can only handle synchronous requests.
* ASGI + Daphne allows:
  + **WebSockets**
  + **Long-lived connections**
  + **Concurrent async tasks**

### 🔑 Setup Steps:

1. **Install Daphne**

pip install daphne

1. **Update settings.py** (Django ≥ 3.0 supports ASGI by default)

o   Ensure ASGI\_APPLICATION is set:

ASGI\_APPLICATION = 'myproject.asgi.application'

1. **Create/Edit asgi.py** (already created by default in new projects):

import os

from django.core.asgi import get\_asgi\_application

os.environ.setdefault('DJANGO\_SETTINGS\_MODULE', 'myproject.settings')

application = get\_asgi\_application()

1. **Run server using Daphne**

daphne myproject.asgi:application

Example with host and port:

daphne -b 0.0.0.0 -p 8000 myproject.asgi:application

⚡ **Summary for Notes:**  
ASGI is Django’s async server interface that supports WebSockets and real-time communication. **Daphne** is the ASGI server used to run Django asynchronously. To set it up: install Daphne, configure ASGI\_APPLICATION, check asgi.py, and run the app with Daphne instead of the default runserver.

Self Note:

For asgi we need to install a third party packege called Daphne

Pip install daphne

After installing this we can run in terminal bu using commands

daphne ch69.asgi:application

after runing this you can see our web is active so

hit url and see

some time we need to change the port like we cannot run on the port 8000

so for changing the port we can hit:

daphne -p 8080 ch69.asgi:application

some time if we like our asgi run on

python manage.py runserver

on this so how we handle that

first go into the settings.py:

# Application definition

INSTALLED\_APPS = [

    'daphne',

    'django.contrib.admin',

    'django.contrib.auth',

    'django.contrib.contenttypes',

    'django.contrib.sessions',

    'django.contrib.messages',

    'django.contrib.staticfiles',

]

And than GO down and add this :

ASGI\_APPLICATION = 'ch69.wsgi.application'