Video file :82

Code file :ch72  
**Django sync to async and async to sync Methods**

1. For this we can setup first uvicorn and than
2. In settings.py:Add static fil e because sometimes in uvicorn the css file can not load or run.so, we make the static file

Insettings.py: # Static files (CSS, JavaScript, Images)

# https://docs.djangoproject.com/en/5.1/howto/static-files/

STATIC\_URL = 'static/'

STATIC\_ROOT = BASE\_DIR / 'static'

1. In urls.py: add their path

from django.contrib import admin

from django.urls import path

from django.conf import settings

from django.conf.urls.static import static

# from myapp.views import student\_data

urlpatterns = [

    path('admin/', admin.site.urls),

    # path('student/', student\_data),

]

if settings.DEBUG:

    urlpatterns += static(settings.STATIC\_URL, document\_root=settings.STATIC\_ROOT)

1. Run command for static file ”python manage.py collectstatic”

for load and run

1. Now see a seperatesatic file can be created

From here our actual topic start’s

Sync to Async

In views.py:

from django.shortcuts import render

from asgiref.sync import sync\_to\_async,async\_to\_sync

# Create your views here.

def my\_sync\_function1(x):

    return x \* 2

def my\_async\_function(x):

    result = await sync\_to\_async(my\_sync\_function1)(5)

    print()

after that we run command in terminal :

python manage.py shell

after run this inside the terminal run follwing commands :

import asyncio

from core.views import my\_async\_function

# Run async function

asyncio.run(my\_async\_function(5))

by using this we can use sync in async function

ASync to sync :

VIEWS.PY:

#ASYNCRONOUS FUNCTION to sync

async def my\_async\_function(x):

    return x \* 2

def my\_sync\_function(x):

    result = async\_to\_sync(my\_async\_function)(5)

    print(result)

orm :

sync\_to\_async example at last:

djagno orm is syncronous

let say we make async orm so how we can deal with the djago orm

how we handle with orm because with sync orm we cannot do work or using commands of database orm

firstly we make the models and register it into admin for our understanding

models.py:

from django.db import models

class Student(models.Model):

    name = models.CharField(max\_length=100)

    age = models.IntegerField()

    email = models.EmailField()

    def \_\_str\_\_(self):

        return self.name

admin.py:

from django.contrib import admin

from core.models import Student

@admin.register(Student)

class StudentAdmin(admin.ModelAdmin):

  list\_display=['name', 'age', 'email']

views.py:

from django.shortcuts import render

from asgiref.sync import sync\_to\_async,async\_to\_sync

from django.http import JsonResponse

from core.models import Student

def get\_student\_data():

    return list(Student.objects.filter(age=20).values())

async def student\_data\_fun(request):

    student\_data = await sync\_to\_async(get\_student\_data)()

    return JsonResponse({'data': student\_data})

direct method :

async def student\_data(request):

    student\_data = await sync\_to\_async(lambda: list(Student.objects.filter(age=20).values()))()

    return JsonResponse({'data':student\_data})