**API Project**

**1-create repository in git**

**2-after publish repository open it with vscode**

**3-virtualenv venv**

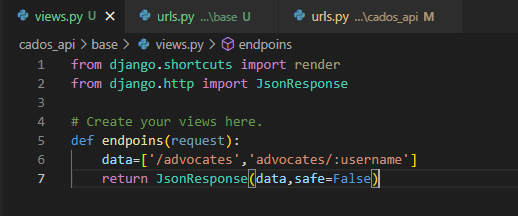
**source/venv/Scripts/activate**

**4-django-admin startproject cados\_api**

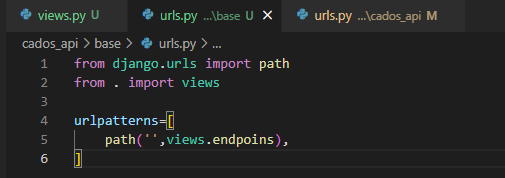
**5-cd cados\_api>python manage.py startapp base**

**6-add base app to installed apps in the settings**

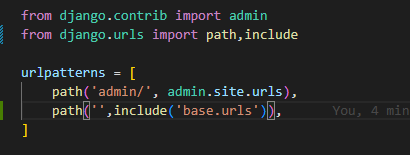
**7-base app views.py:**

****

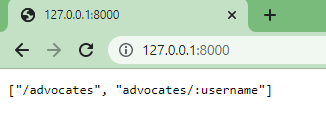
**8-base app urls.py:**

****

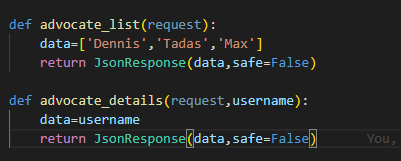
**9-cados\_api urls.py:**

****

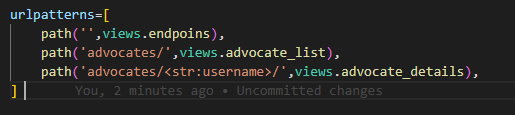
**10-Test:before test do migrate**

****

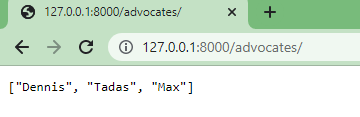
**11-base app views.py:**

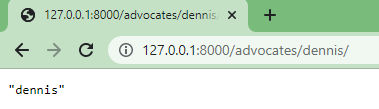
****

**12-base app urls.py:**

****

**13-Test:**

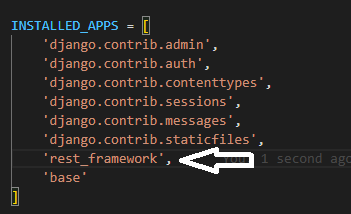
****

****

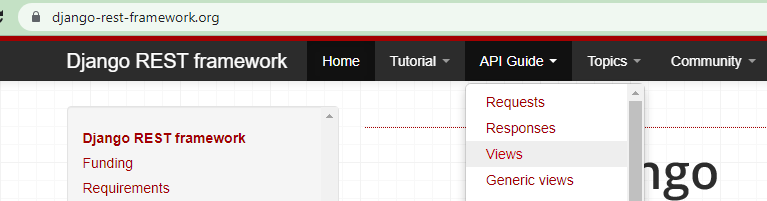
**14-django restframework:**

**pip install djangorestframework**

**then add it to installed apps in settings.py**

****

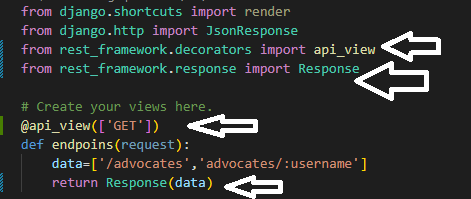
**Good site too learn:**

****

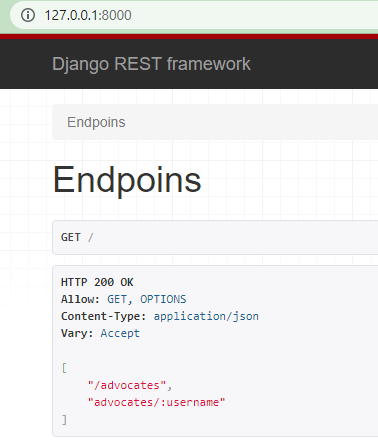
**Good example:**

****

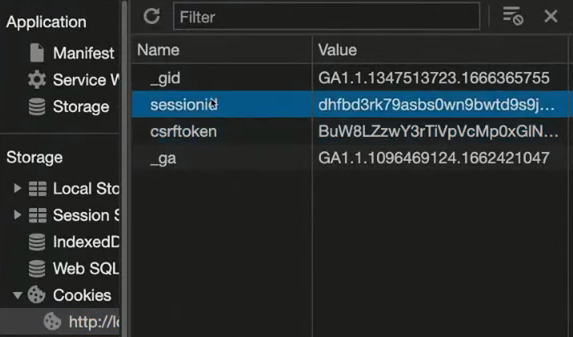
**base app view.py:**

****

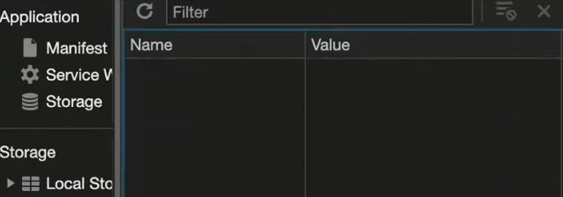
**Result:**

****

**But for teacher dosen’t work because he said he wroks with other django application and its session id cause this error and to solve it go to inspect:**

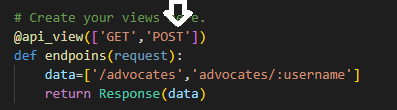
****

**And delete all of them:**

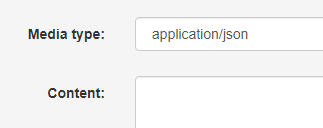
****

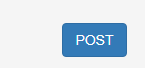
**And problem solved.**

**If we add POST request to decorator:**

****

**And refresh server we see a form to send data:**

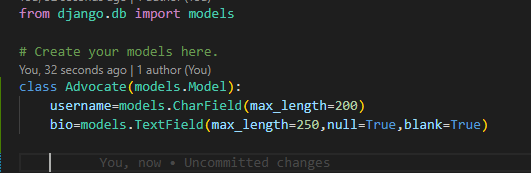
****

****

**Ao as you can see django is very powerfull and you don’t need something like postman to see rest apis.**

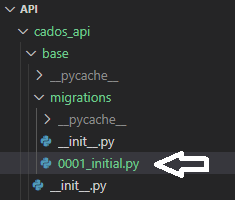
**15-design database in django**

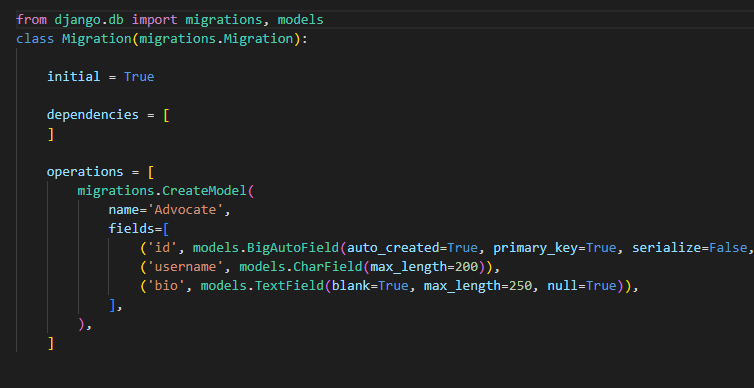
**open models.py for base app:**

****

**Then migration commands**

**After it open this file:**

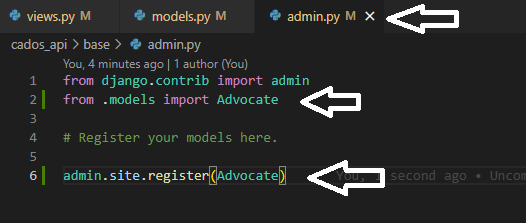
****

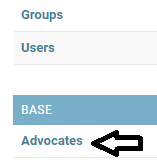
****

**You see it add id automatically and we don’t need to add id in models.**

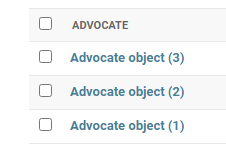
**create super user to can access admin panel.after it login to admin panel.we see users and groups table here but we don’t see Advocate table.**

**admin.py base app:**

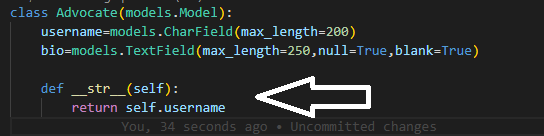
****

****

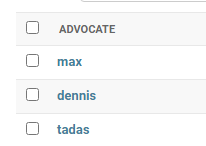
**we add 3 username:**

****

**To fix shows username instead of object:**

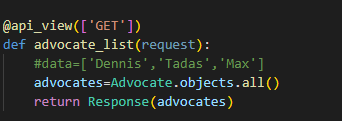
****

**Result:**

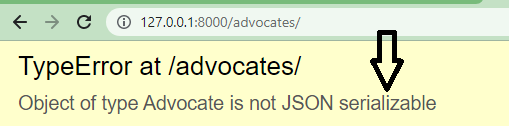
****

**16-another api to get all usernames**

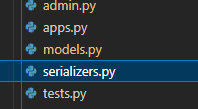
****

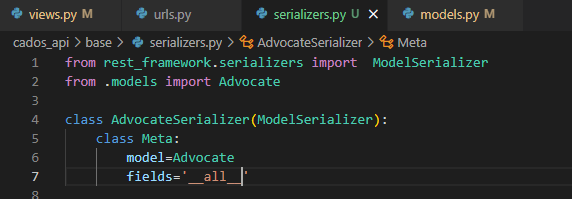
****

**If we runserver we have error:**

****

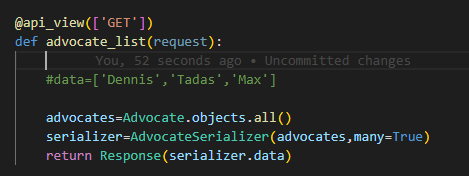
**To fix it create a new file in base app named serializers.py:**

****

****

**Views.py:**

****

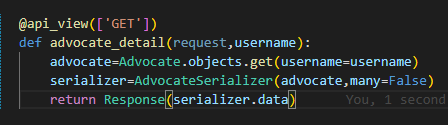
****

**Test:**

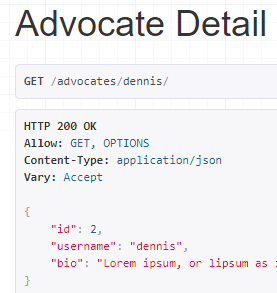
****

****

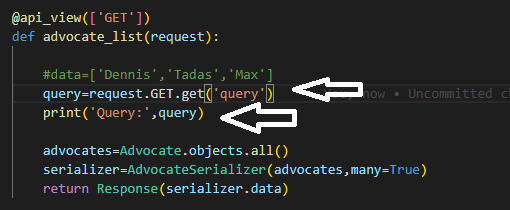
**16-another api to get 1 username**

****

****

****

**17-get the query from the front-end to get apecific username:**

****

**If we run the server and go to 127.0.0.1:8000/advocates we see query is None:**

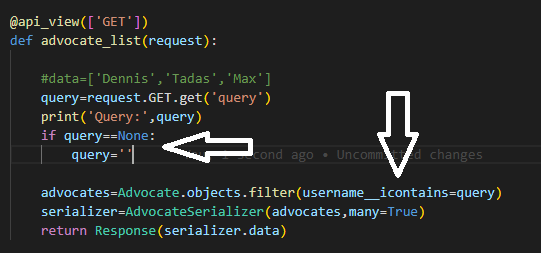
****

**But if we pass dennis:**

****

****

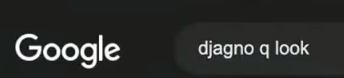
**But all usernames shows.**

****

****

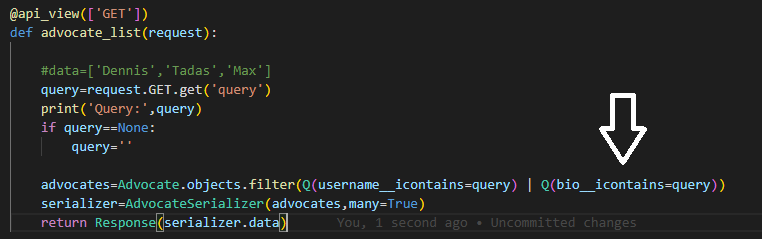
****

**18-two condition:**

****

****

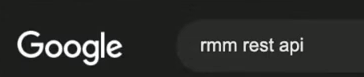
****

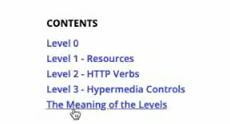
****

****

****

**You should know what is differenve between APIs and Rest APIs.**

****

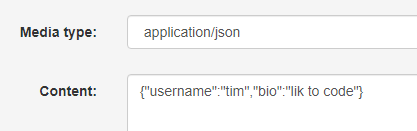
****

**19-handle GET and POST in one restfull API:**

****

**Test:**

****

****

****

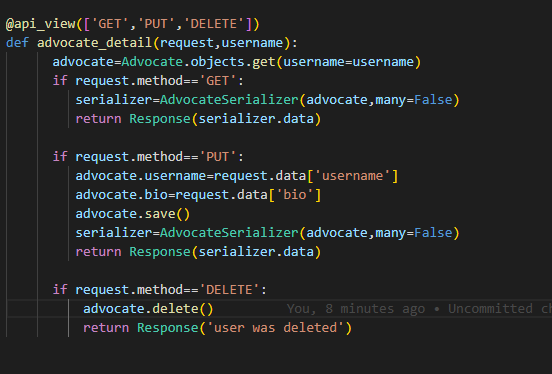
****

**If we refresh GET request:**

****

****

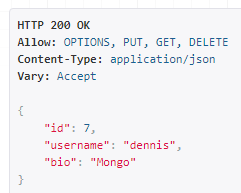
**20-GET PUT DELETE**

****

**Test:**

**Get 1 username:**

****

****

**Put:we want to change dennis informations**

****

****

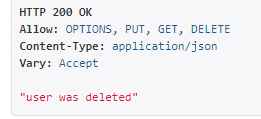
****

**And it works good.**

**We want to delete javidkhan username:**

****

****

****

**User deleted and if we get all usernames javidkhan was deleted successfully.**

****

**21-rewrite advocate\_detail view as class based view**

**First comment this view.and then go to this site:**

****

**We do need to import the APIView then pass the APIView to actuall class:**

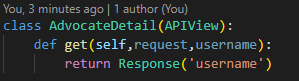
****

****

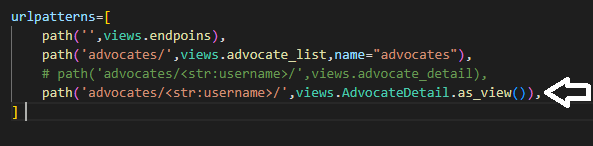
**Then all we need to do is create a Http method.and we don’t longer to check is this a GET request or is this a POST request and we don’t need to worry about any of that.**

****

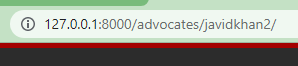
**views.py base app:**

****

**urls.py base app:**

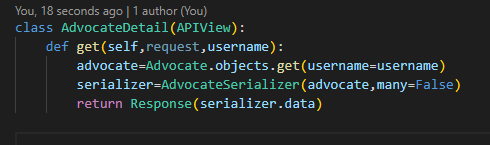
****

**Test:**

****

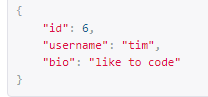
****

**So we complete the class based view:**

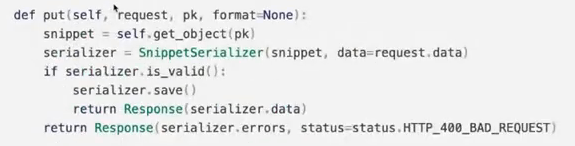
****

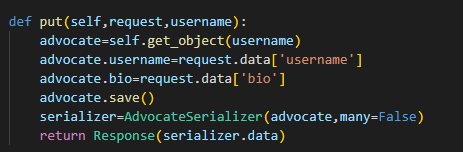
**Test:**

****

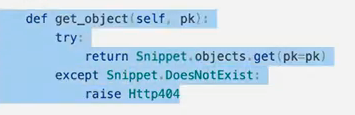
****

**Then we need post request:**

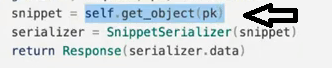
****

****

**And for delete we need to get single object:**

****

**But we modify this method and we use username instead of pk.and for call this method:**

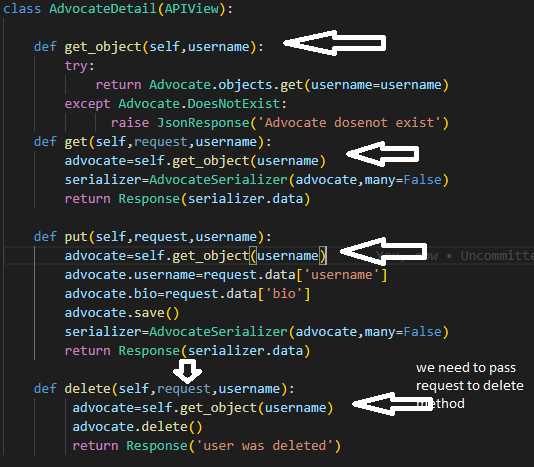
****

**So we change this line in get and put method:**

****

**To:**

****

****

**Test:**

****

****

****

****

****

****

**Then put:**

****

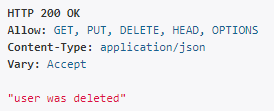
**And good work.**

**Delete Test:**

****

****

****

****

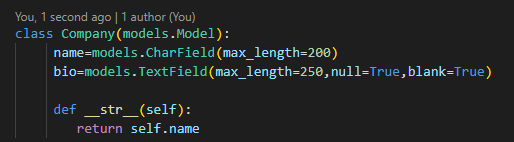
****

****

**And good work.**

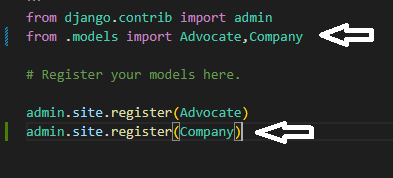
**22-Relationship**

**In base app views.py create another class:**

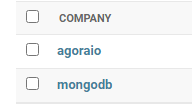
****

**Migrate it.**

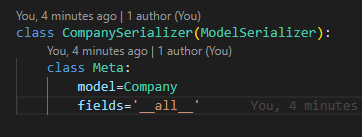
**Admin.py:**

****

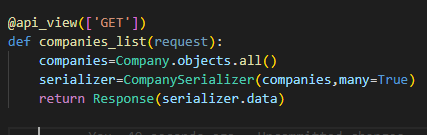
**Add 2 company in admin panel:**

****

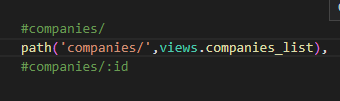
**serializer.py:**

****

**views.py:**

****

**urls.py:**

****

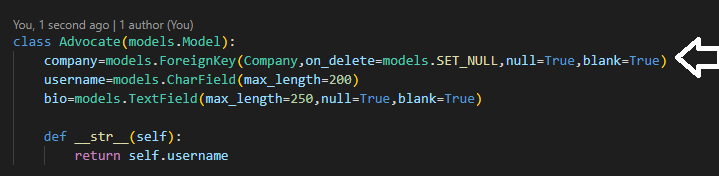
**Test:**

****

****

**And good work.**

**We want to make one-to-many relationship.because in real world it is possible a person works multiple companies.so we add company to Advocate model:**

****

**Migrate.then in admin panel add company to persons in the Advocate table.**

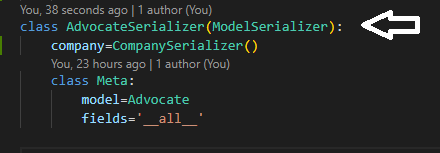
**Test:**

****

****

**We see company id .**

**Note:you should put company seriailizer top of the Advocate Serializer.and add this line:**

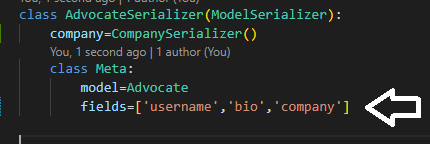
****

**Test:**

****

****

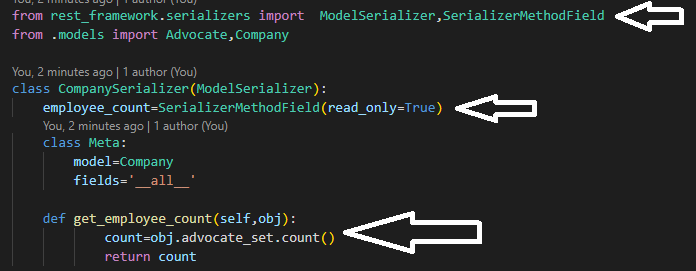
**If you change this line:**

****

**Test:**

****

**We can add custome filed to CompanySerializer:**

****

**Test:**

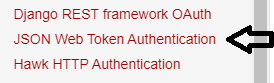
****

**And work good.**

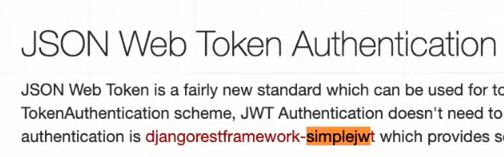
**23:Authentication**

**Json Web Token**

****

****

**Serach simple JWT:**

****

****

**There is a package I like to use and there is a link to official documentation.**

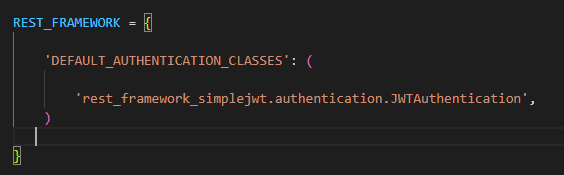
****

****

**Installation:**

****

**Then we have to change authentication mechanisem in the settings.py file.so add this to settings.py:**

****

****