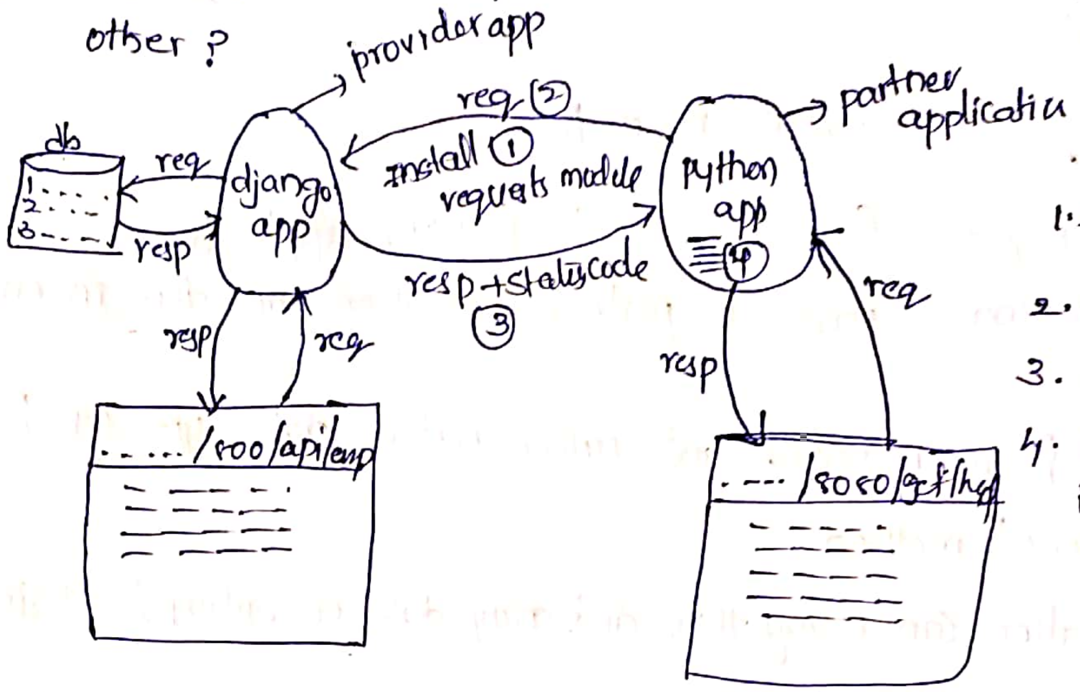
App to App Communication :-

Q: How two different applications are communicating with each other ?



1. Install requests modul
2. Sending requests
3. Getting response
4. converting data into partner data

→ Here App to App communication procedure :-

→ when partner application sending requests to provider application, then provider application returns response to the partner applicatin

→ My partner application unable to use JSON response, so we need to convert this JSON response into partner native (own) language format. Then partner can use provider response successfully according their business requirements

→ Here provider is my django application, it returns JSON response in the form of {key : value} format

⇒ Here partner is python application, the python can't understand JSON format data, so we need to convert this response into python dictionary format that is python {key : value} format

› for this conversion "JSON()" method to converting JSON response into dictionary

eg: dictionary = response.json()

Procedure for app-to-app :-

* Install 'requests' module, to provide communication b/w two applications

*
```
pip install requests
```

* Sending the request from partner to provider application
* Provider sending response to partner application and store in one variable.
* convert this json response into python native data type like 'dict', by using "json()" method
* partner application can using this dictionary data according to business requirements

partner procedure :- (python)

→ create one python file with name as 'partner.py' wherever we want

```
demoproject
  |→ demoproject
  |→ demoapp
  |→ partner.py,
```

① import requests module in partner.py

```
import requests
```

② create provider application url in one variable

```
url = 'http://127.0.0.1:8000/get/hyd/'
```

③ send provider url by using the 'requests' module related 'http' methods based on requirments and store ~~results~~ response into one variable

```
response = requests.get (url)
```
→ provider url

④ convert this response data into python dictionary type by using json() method and store into Variable

$\boxed{\text{dict\_data = response.json()}}$

⑤ use this dict-data wherever we want in partner app

⇒ create a python file which name as partner.py and write the logics with exception handling for communicating the provider application to performing database operations.

step-1 :- create python application name which name as partner.py
Righclick on root folder name → New → python file → partner.py ↵

```
import requests
base_url ='http://127.0.0.1:9944/'
end_point_url = 'api/emi-viewset/'
final_url =base_url + end_point_url
#for getting all records
 response = requests.get(final_url)
 data=response.json()
 print(data)
# for getting single record
  id = input ('Enter one id!)
 response =requests.get (final_url+id+'/')
  data = response.json()
  print(data)
# for deleting single record
  id = input ('enter one Id')
  respone = request. delete(final_url+id +"/')
  data ~~=response.json()~~
  print('data deleted')
```

creating new record
```
payload = {
     'empid' : 90,
     'empname' : 'Ram kumar',
     'email' : 'ram@123gmail.com'
     'salary' : 20000
   }
response= requests.post (final_url, data = payload)
data = response.json()
print (data)
```
update an existing record
```
payload = {
     'empid' : 100,
     'empname' : 'Ram'
     'email' : 'ram@gmail.com
     'salary' : 95000
   }
id = input ('enter id')
response = requests.put (final_url + id + '/', data = payload)
data = response.data()
print (data)
```
With exception handling :-
```
    response = request. post (final_url) ~~data = payload~~
    if response.status_code == 200 :
        print ("statu code is :", response.status_code)
        try :
            print (response.json())
        except :
            print ("sorry, you are not getting the json Response
                        from providerApp")
```

Scanned with CamScanner

```
elif response.status_code==201:
    print ("status code is :", response.status_code)
    print (response.json())
    print ("Record created successfully")
elif response.status_code == 204:
    print ('status code is :", response.status_code)
    print ("Record deleted successfully")
elif response.status_code ==400:
    print ("status code is :", response.status_code)
    print (" Bad request, record not created")
elif response.status_code ==404:
    print ('status code is :', response.status_code)
    print (' Record not found')
elif response.status_code==403:
    print ('status code is :', response.status_code)
    print (' method not hitting, csrf token not available')
elif response.status_code == 500:
    print ('status code is :', response.status_code)
    print (' server side exception')
else:
    print ('status code is :", response.status_code)
    print ('sry unable to operation')
```

Scanned with CamScanner