

# API REST - Gestion d'un Centre de Santé

- Nom : VANDJY BOUNDZANGA Metra Phirielle

# Introduction

- Ce projet consiste à créer une API REST avec Django REST Framework
- pour gérer les patients, médecins, rendez-vous et consultations
- d'un centre de santé.

# Architecture du Projet

- - Django + Django REST Framework
- - Modèle MVC
- - Architecture REST (endpoints, HTTP methods)
- - Sérialisation des données
- - ViewSets + Routers

# Modèles de Données

- - Patient : nom, prénom, date de naissance
- - Médecin : nom, spécialité
- - Rendez-vous : patient, médecin, date, statut
- - Consultation : diagnostic, traitement, etc.

# Endpoints de l'API

- Patients : /api/patients/
- Médecins : /api/medecins/
- Rendez-vous : /api/rendezvous/
- Consultations : /api/consultations/
- Méthodes : GET, POST, PUT, DELETE

# Démo / Interface/Code

- Appels API testés avec Postman ou navigateur

- Patients :/api/patients/= [Patient List – Django REST framework](#)

The screenshot shows a web browser with multiple tabs. The active tab is titled "Patient List – Django REST framework". The address bar shows the URL "127.0.0.1:8000/api/patients/?format=api". The browser's toolbar includes various icons for navigation and extensions. Below the browser window, a dark header bar displays "Django REST framework" on the left and "metra" on the right. The main content area has a light gray background with a grid pattern. At the top of this area, a breadcrumb trail reads "Api Root / Patient List". Below this, the title "Patient List" is prominently displayed in a large, bold font. To the right of the title are two blue buttons: "OPTIONS" and "GET". Underneath the title, a light gray box contains the text "GET /api/patients/?format=api". The main body of the page shows the response of the GET request, which is a JSON array of two patient objects. The response is formatted with syntax highlighting, showing the HTTP status "HTTP 200 OK", allowed methods "Allow: GET, POST, HEAD, OPTIONS", content type "Content-Type: application/json", and the JSON data structure.

Django REST framework metra

Api Root / Patient List

## Patient List

OPTIONS GET

GET /api/patients/?format=api

HTTP 200 OK  
Allow: GET, POST, HEAD, OPTIONS  
Content-Type: application/json  
Vary: Accept

```
[
  {
    "id": 1,
    "nom": "VANDJY BOUNDZANGA",
    "prenom": "Metra Phirielle",
    "date_naissance": "2025-05-09",
    "adresse": "Auchan liberté 5",
    "telephone": "5874556"
  },
  {
    "id": 2,
    "nom": "VANDJY",
    "prenom": "Metra",
    "date_naissance": "2016-02-11",
    "adresse": "Auchan liberté 5\r\nAppartement",
    "telephone": "0780986534"
  }
]
```

# • Patients : /api/patients/

Consultation List – Dj

Rendez Vous List – Dj

Medecin List – Django

Patient List – Django

Select user to change

WhatsApp

127.0.0.1:8000/api/patients/?format=api

ABP

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py3-wkhtmltopdf ...

fpt4\_spec.pdf

Gmail

YouTube

Maps

Traduire

```
[{"telephone": "0780986534"}]
```

Raw data

HTML form

Media type:

application/json

Content:

```
{
  "nom": "",
  "prenom": "",
  "date_naissance": null,
  "adresse": "",
  "telephone": ""
}
```

POST



# • Patients : /api/patients/

Consultation List - Django

Rendez Vous List - Django

Medecin List - Django

Patient List - Django

Select user to change

WhatsApp

127.0.0.1:8000/api/patients/?format=api

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Django REST frameworkmetra

```
{  "telephone": "0780986534"}
```

Raw data

HTML form

Nom

Prenom

Date naissance

jj/mm/aaaa

Adresse

Telephone

POST

# • Patients : /api/patients/

You are using the Lightweight API Client, sign in or create an account to work with collections, environments and unlock all free features in Postman.

History

New Import GET http://127.0.0.1:8000/api/ GET http://127.0.0.1:8000/api/ GET http://127.0.0.1:8000/api/ + ...

...

Today

- GET http://127.0.0.1:8000/api/patients/
- PUT http://127.0.0.1:8000/api/patients/
- GET http://127.0.0.1:8000/api/patients/
- GET http://127.0.0.1:8000/api/rendezvous/
- GET http://127.0.0.1:8000/api/consultations/
- GET http://127.0.0.1:8000/api/medecins/
- GET http://127.0.0.1:8000/api/patients/
- DEL http://127.0.0.1:8000/api/patients/
- DEL http://127.0.0.1:8000/api/patients/
- GET http://127.0.0.1:8000/api/patients/
- PUT http://127.0.0.1:8000/api/patients/
- GET http://127.0.0.1:8000/api/patients/
- POST http://127.0.0.1:8000/api/patients/
- GET http://127.0.0.1:8000/api/medecins/
- GET http://127.0.0.1:8000/api/medecins/
- GET http://127.0.0.1:8000/api/medecins/
- GET http://127.0.0.1:8000/api/patients/
- GET http://127.0.0.1:8000/api/patients/

HTTP http://127.0.0.1:8000/api/patients/ Save </>

GET http://127.0.0.1:8000/api/patients/ Send

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

Query Params

	Key	Value	Bulk Edit
	Key	Value	

Body Cookies Headers (10) Test Results Status: 200 OK Time: 68 ms Size: 616 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {
2   "id": 1,
3   "nom": "VANDJY BOUNDZANGA",
4   "prenom": "Metra Phirielle",
5   "date_naissance": "2025-05-09",
6   "adresse": "Auchan liberte 5",
7   "telephone": "5874556"
8 }
```

- Médecins :/api/medecins/= [Medecin List – Django REST framework](#)

The screenshot shows a web browser window with the URL `127.0.0.1:8000/api/medecins/`. The browser's address bar and tabs are visible at the top. The page content is from the Django REST framework, displaying the API endpoint `/api/medecins/` with the title "Medecin List".

At the top of the page, there is a dark header with the text "Django REST framework" on the left and "metra" on the right. Below this, a breadcrumb trail shows "Api Root / Medecin List".

The main heading "Medecin List" is prominently displayed. To its right are two buttons: "OPTIONS" and "GET" with a dropdown arrow. Below the heading, the HTTP method "GET /api/medecins/" is shown.

The response details are listed below the method:

- HTTP 200 OK
- Allow: GET, POST, HEAD, OPTIONS
- Content-Type: application/json
- Vary: Accept

The response body is a JSON array containing two doctor objects:

```
[
  {
    "id": 1,
    "nom": "VANDJY BOUNDZANGA",
    "specialite": "Médecine générale"
  },
  {
    "id": 2,
    "nom": "Diana NDONG",
    "specialite": "Urologue"
  }
]
```

At the bottom right of the page, there are two tabs: "Raw data" and "HTML form", with "Raw data" currently selected.

- Médecins :/api/medecins/= [Medecin List – Django REST framework](#)

Django REST framework metra

```
[
  {
    "id": 1,
    "nom": "VANDJY BOUNDZANGA",
    "specialite": "Médecine générale"
  },
  {
    "id": 2,
    "nom": "Diana NDONG",
    "specialite": "Urologue"
  }
]
```

Raw data HTML form

Nom

Specialite

POST

- Médecins :/api/medecins/= Medecin List – Django REST framework

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History

NewImport

GET http://127.0.0.1:8000/api/

GET http://127.0.0.1:8000/api/

GET http://127.0.0.1:8000/api/

+

...

Today

GET http://127.0.0.1:8000/api/medecins/

DEL http://127.0.0.1:8000/api/medecins/1

GET http://127.0.0.1:8000/api/medecins/2

GET http://127.0.0.1:8000/api/medecins/

DEL http://127.0.0.1:8000/api/medecins/

PUT http://127.0.0.1:8000/api/medecins/

GET http://127.0.0.1:8000/api/medecins/

GET http://127.0.0.1:8000/api/patients/

PUT http://127.0.0.1:8000/api/patients/

GET http://127.0.0.1:8000/api/patients/

GET http://127.0.0.1:8000/api/rendezvous/

GET http://127.0.0.1:8000/api/consultations/

GET http://127.0.0.1:8000/api/medecins/

GET http://127.0.0.1:8000/api/patients/

DEL http://127.0.0.1:8000/api/patients/

DEL http://127.0.0.1:8000/api/patients/

GET http://127.0.0.1:8000/api/patients/

PUT http://127.0.0.1:8000/api/patients/

HTTP

http://127.0.0.1:8000/api/medecins/

Save

</>

GET

http://127.0.0.1:8000/api/medecins/

Send

Params

Authorization

Headers (6)

Body

Pre-request Script

Tests

Settings

Cookies

Type

No Auth

This request does not use any authorization. [Learn more about authorization](#)

Body

Cookies

Headers (10)

Test Results

Status: 200 OK

Time: 8 ms

Size: 456 B

Save Response

Pretty

Raw

Preview

Visualize

JSON

1

2

3

4

5

6

7

8

{

"id": 1,

"nom": "VANDJY BOUNDZANGA",

"specialite": "Médecine générale"

},

{

"id": 2.

Console

Not connected to a Postman account

• Rendez-vous :/api/rendezvous/= [Rendez Vous List – Django REST framework](#)

Consultation xRendez Vous xMedecin List xPatient List – xSelect user to xWhatsApp xMoouh2/Arci xNouvel onglet x

127.0.0.1:8000/api/rendezvous/

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Django REST frameworkmetra

Api Root / Rendez Vous List

Rendez Vous List

OPTIONSGET

GET /api/rendezvous/

HTTP 200 OK

Allow: GET, POST, HEAD, OPTIONS

Content-Type: application/json

Vary: Accept

[

{

"id": 1,

"patient": 2,

"medecin": 1,

"date": "2025-05-18T01:07:00Z",

"statut": "Analyse",

"patient\_nom": "Metra VANDJY",

"medecin\_nom": "Dr. VANDJY BOUNDZANGA (Médecine générale)"

,

{

"id": 2,

"patient": 2,

"medecin": 1,

"date": "2025-05-18T01:07:00Z",

"statut": "Analyse",

"patient\_nom": "Metra VANDJY"

• Rendez-vous :/api/rendezvous/= Rendez Vous List – Django REST framework

Consultation

Rendez Vous

Medecin List

Patient List

Select user to

WhatsApp

Moooh2/Arcl

Nouvel onglet

127.0.0.1:8000/api/rendezvous/

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Django REST framework

metra

```
"medecin": 2,
"date": "2025-05-18T01:07:00Z",
"statut": "Opération",
"patient_nom": "Metra Phirielle VANDJY BOUNDZANGA",
"medecin_nom": "Dr. Diana NDONG (Urologue)"
}
```

Raw data

HTML form

Patient

Metra Phirielle VANDJY BOUNDZANGA

Medecin

Dr. VANDJY BOUNDZANGA (Médecine générale)

Date

jj/mm/aaaa --:--

Statut

POST

# • Rendez-vous :/api/rendezvous/= Rendez Vous List – Django REST framework

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Sign InCreate Account

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History

NewImport

GET http://127.0.0.1:8000/api/GET http://127.0.0.1:8000/api/GET http://127.0.0.1:8000/api/

Today

GET http://127.0.0.1:8000/api/rendezvous/PUT http://127.0.0.1:8000/api/rendezvous/2POST http://127.0.0.1:8000/api/rendezvous/2GET http://127.0.0.1:8000/api/rendezvous/GET http://127.0.0.1:8000/api/medecins/DEL http://127.0.0.1:8000/api/medecins/1GET http://127.0.0.1:8000/api/medecins/2GET http://127.0.0.1:8000/api/medecins/DEL http://127.0.0.1:8000/api/medecins/PUT http://127.0.0.1:8000/api/medecins/GET http://127.0.0.1:8000/api/medecins/GET http://127.0.0.1:8000/api/patients/

Create collections in Postman

Use collections to save your requests and share them with others.

Create a Collection

HTTP http://127.0.0.1:8000/api/patients/Save

GET http://127.0.0.1:8000/api/rendezvous/Send

ParamsAuthorizationHeaders (6)BodyPre-request ScriptTestsSettingsCookies

Query Params

	Key	Value	Bulk Edit
	Key	Value	

BodyCookiesHeaders (10)Test Results

Status: 200 OKTime: 14 msSize: 1 KBSave Response

PrettyRawPreviewVisualizeJSON

12345678

{  
 "id": 1,  
 "patient": 2,  
 "medecin": 1,  
 "date": "2025-05-18T01:07:00Z",  
 "statut": "Analyse",  
 "oatient nom": "Metra VANDJY".

ConsoleNot connected to a Postman account



- Consultations :/api/consultations/=

## Consultation List – Django REST framework

The screenshot shows a web browser with multiple tabs open. The active tab is titled "Consultation" and the address bar shows the URL "127.0.0.1:8000/api/consultations/". The browser's toolbar includes various icons for navigation and extensions. Below the browser window, a dark header bar displays "Django REST framework" on the left and "metra" on the right. The main content area has a light gray background with a grid pattern. At the top of this area, a breadcrumb trail reads "Api Root / Consultation List". Below this, the title "Consultation List" is prominently displayed. To the right of the title are two blue buttons: "OPTIONS" and "GET". Underneath the title, a light gray box contains the text "GET /api/consultations/". The main body of the page shows the response details for a GET request. It starts with "HTTP 200 OK", followed by "Allow: GET, POST, HEAD, OPTIONS", "Content-Type: application/json", and "Vary: Accept". Below this, a JSON array is displayed, containing two consultation objects. The first object has an id of 1, a diagnostic of "jhbjg", a treatment of "jdh", a date of "2025-05-11", and a rendez\_vous value of 1. The second object has an id of 2, a diagnostic of "hfghvf", a treatment of "egdef", a date of "2025-05-11", and a rendez\_vous value of 4.

Consultation

127.0.0.1:8000/api/consultations/

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Django REST framework metra

Api Root / Consultation List

## Consultation List

OPTIONS GET

GET /api/consultations/

HTTP 200 OK  
Allow: GET, POST, HEAD, OPTIONS  
Content-Type: application/json  
Vary: Accept

```
[
  {
    "id": 1,
    "diagnostic": "jhbjg",
    "traitement": "jdh",
    "date": "2025-05-11",
    "rendez_vous": 1
  },
  {
    "id": 2,
    "diagnostic": "hfghvf",
    "traitement": "egdef",
    "date": "2025-05-11",
    "rendez_vous": 4
  }
]
```

- Consultations :/api/consultations/=

## Consultation List – Django REST framework

The screenshot shows a web browser window with the URL `127.0.0.1:8000/api/consultations/`. The browser's address bar and tabs are visible at the top. The main content area displays the Django REST framework interface for the `api/consultations/` endpoint. The interface includes a header with the text "Django REST framework" and a user profile "metra". Below the header, a JSON object is displayed in a light blue box, representing a consultation record. To the right of the JSON, there are two tabs: "Raw data" (selected) and "HTML form". Below the tabs, there is a form with three input fields: "Diagnostic", "Traitement", and "Rendez vous". The "Rendez vous" field is a dropdown menu showing the selected value: "Metra VANDJY avec Dr. VANDJY BOUNDZANGA (Médecine générale) le 18/05/2025 01:07". At the bottom right of the form, there is a blue button labeled "POST".

Django REST framework metra

```
{
  "id": 2,
  "diagnostic": "hfghvf",
  "traitement": "egdef",
  "date": "2025-05-11",
  "rendez_vous": 4
}
```

Raw data HTML form

Diagnostic

Traitement

Rendez vous Metra VANDJY avec Dr. VANDJY BOUNDZANGA (Médecine générale) le 18/05/2025 01:07

POST

# • Consultations :/api/consultations/=

## Consultation List – Django REST framework

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History

NewImport

GET http://127.0.0.1:8000/api/GET http://127.0.0.1:8000/api/GET http://127.0.0.1:8000/api/GET http://127.0.0.1:8000/api/

Today

GET http://127.0.0.1:8000/api/consultations/HEAD http://127.0.0.1:8000/api/consultations/POST http://127.0.0.1:8000/api/consultations/GET http://127.0.0.1:8000/api/consultations/GET http://127.0.0.1:8000/api/consultations/GET http://127.0.0.1:8000/api/rendezvous/PUT http://127.0.0.1:8000/api/rendezvous/2POST http://127.0.0.1:8000/api/rendezvous/2GET http://127.0.0.1:8000/api/rendezvous/GET http://127.0.0.1:8000/api/medecins/DEL http://127.0.0.1:8000/api/medecins/1GET http://127.0.0.1:8000/api/medecins/2

Create collections in Postman

Use collections to save your requests and share them with others.

Create a Collection

HTTP

http://127.0.0.1:8000/api/consultations/

Save

Send

GET

http://127.0.0.1:8000/api/consultations/

ParamsAuthorizationHeaders (6)BodyPre-request ScriptTestsSettings

Query Params

	Key	Value	Bulk Edit
	Key	Value	

BodyCookiesHeaders (10)Test Results

Status: 200 OKTime: 10 msSize: 504 BSave Response

PrettyRawPreviewVisualizeJSON

```
1 {
2   "id": 1,
3   "diagnostic": "jhbjpg",
4   "traitement": "jdh",
5   "date": "2025-05-11",
6   "rendez_vous": 1
7 }
8
```

Comme on peut le constater avec les captures d'écran mon code permet de saisir les données à la fois par le navigateur qui affiche la méthode GET et POST mais limité à ses deux méthodes et de plus postman permet de saisir les données avec toutes les autres méthodes GET, POST, PUT, DELETE

# Avantages de REST

- - Requêtes simples et standards (HTTP)
- - Séparation client / serveur
- - Compatible avec d'autres applications (Flutter, etc.)
- - Scalable et maintenable

# Difficultés rencontrées

- - Sérialisation des relations
- - Affichage des noms au lieu des IDs
- - Gestion des erreurs 404
- - Configuration initiale des routes

# Conclusion

- - API fonctionnelle pour gérer un centre de santé
- - Base extensible pour d'autres modules (authentification, facturation)
- - Utilisation de bonnes pratiques REST