**Setting up a Django development environment**

python.exe -m venv env

.\env\Scripts\activate

Installing packet

pip install django

create django project

django-admin startproject cliniqueplus

Creating the catalog application

py manage.py startapp utilisateur

py manage.py startapp core

Registering the catalog application

cliniqueplus\settings.py

# Application definition

INSTALLED\_APPS = [

    'django.contrib.admin',

    'django.contrib.auth',

    'django.contrib.contenttypes',

    'django.contrib.sessions',

    'django.contrib.messages',

    'django.contrib.staticfiles',

    # Add our new application

    'core.apps.CoreConfig', #This object was created for us in /core/apps.py

    'utilisateur.apps.UtilisateurConfig', #This object was created for us in /utilisateur/apps.py

]

Specifying the database

pip install psycopg2

cliniqueplus\settings.py

# Database

DATABASES = {

    'default': {

        'ENGINE': 'django.db.backends.postgresql',

        'NAME': 'dbname',

        'USER': 'dbuser',

        'PASSWORD': 'passsword',

        'HOST': 'dbhost',

        'PORT': '',

    }

}

Other project settings

# Internationalization

# https://docs.djangoproject.com/en/4.1/topics/i18n/

LANGUAGE\_CODE = 'fr-FR'

TIME\_ZONE = 'Africa/Lome'

Hooking up the URL mapper

core\urls.py

from django.urls import path

from . import views

urlpatterns = [

]

cliniqueplus\urls.py

from django.contrib import admin

from django.urls import path,include

from django.conf import settings

from django.conf.urls.static import static

urlpatterns = [

    path('admin/', admin.site.urls),

    path('', include('core.urls')),

    path('utilisateur/', include('utilisateur.urls')),

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

Running database migrations

python manage.py makemigrations

python manage.py migrate

Running the website

python manage.py runserver

Using models

Once we've decided on our models and field, we need to think about the relationships. Django allows you to define relationships that are one to one (OneToOneField), one to many (ForeignKey) and many to many (ManyToManyField).

La bibliotheque des images

pip install Pillow

django contri

pip install django-countries

phonenumber

pip install django-phonenumber-field[phonenumberslite]

django-taggit

pip install django-taggit

INSTALLED\_APPS = [

        # TIERS\_APPS

    'django\_countries',

    'phonenumber\_field',

 'taggit',

]

core\models.py

from django.db import models

from django.urls import reverse

import uuid

from django\_countries.fields import CountryField

from phonenumber\_field.modelfields import PhoneNumberField

from taggit.managers import TaggableManager

# Create your models here.

# la class de base

class BaseModel(models.Model):# toutes les autres class vont heriter de ces 3 attributs de la class BaseModel

    uid=models.UUIDField(primary\_key=True,default=uuid.uuid4,editable=False)

    status=models.BooleanField(default=True,help\_text='active ou desactive')

    created=models.DateField(auto\_now\_add=True,blank=True,null=True,help\_text='Create date')

    updated=models.DateTimeField(auto\_now=True,help\_text='Update date')

    class Meta:

        abstract=True

class Specialite(BaseModel):

    libelle=models.CharField(max\_length=255,blank=True,null=True)

    description = models.TextField(blank=True,null=True) #Short Description of the Specialite

    image = models.ImageField(upload\_to='specialites') #Cover Image of the Specialite

    # Metadata

    class Meta:

        ordering = ['-updated']

        verbose\_name = 'Specialite'

    def \_\_str\_\_(self):

        return self.libelle

    def get\_absolute\_url(self):

        return reverse("specialite\_details", kwargs={'pk': self.pk})

class Departement(BaseModel):

    libelle=models.CharField(max\_length=255,blank=True,null=True)

    description = models.TextField(blank=True,null=True) #Short Description of the Departement

    image = models.ImageField(upload\_to='departements') #Cover Image of the Departement

    def \_\_str\_\_(self):

        return self.libelle

    def get\_absolute\_url(self):

        return reverse("departement\_details", kwargs={'pk': self.pk})

class Ecole(BaseModel):

    libelle=models.CharField(max\_length=255,blank=True,null=True)

    description = models.TextField(blank=True,null=True) #Short Description of the Ecole

    def \_\_str\_\_(self):

        return self.libelle

    def get\_absolute\_url(self):

        return reverse("ecole\_details", kwargs={'pk': self.pk})

class Formation(BaseModel):

    libelle=models.CharField(max\_length=255,blank=True,null=True)

    description = models.TextField(blank=True,null=True) #Short Description of the Formation

    def \_\_str\_\_(self):

        return self.libelle

    def get\_absolute\_url(self):

        return reverse("formation\_details", kwargs={'pk': self.pk})

#   les champs d'action des medcins

class Specialisations(BaseModel):

    libelle=models.CharField(max\_length=255,blank=True,null=True)

    description = models.TextField(blank=True,null=True) #Short Description of the Specialisations

    def \_\_str\_\_(self):

        return self.libelle

    def get\_absolute\_url(self):

        return reverse("Specialisations\_details", kwargs={'pk': self.pk})

class Clinique(BaseModel):

    libelle=models.CharField(max\_length=255,blank=True,null=True)

    description = models.TextField(blank=True,null=True) #Short Description of the Clinique

    def \_\_str\_\_(self):

        return self.libelle

    def get\_absolute\_url(self):

        return reverse("clinique\_details", kwargs={'pk': self.pk})

class Medcin(BaseModel):

    GENRES = (

        ('h', 'Homme'),

        ('f', 'Femme'),

    )

    IDMedcin = models.CharField(max\_length=255,blank=True,null=True,unique=True)

    nom = models.CharField(max\_length=255,blank=True,null=True)

    prenom = models.CharField(max\_length=255,blank=True,null=True)

    email = models.EmailField(db\_index=True, unique=True)

    photo = models.ImageField(upload\_to='medcins/avatar/',blank=True, null=True)

    telephone = PhoneNumberField(null=False, blank=False, unique=True)

    pays = CountryField(null=True,blank=True,blank\_label='(select country)')

    adresse = models.CharField(max\_length=255,blank=True,null=True)

    bio = models.TextField(blank=True,null=True) #Short Description of the Specialite

    anniversaire = models.CharField(max\_length=255,blank=True,null=True)

    genre = models.CharField(

        max\_length=1,

        choices=GENRES,

        blank=True,

        default='h',

        help\_text='Select genre',

    )

    tags = TaggableManager()

    specialite=models.ForeignKey(Specialite,on\_delete=models.SET\_NULL,blank=True,null=True,related\_name="fk\_specialite")

    departement=models.ForeignKey(Departement,on\_delete=models.SET\_NULL,blank=True,null=True,related\_name="fk\_departement")

    views = models.IntegerField(default=0)

    is\_popular = models.BooleanField(default=False)

    # media social

    twitter = models.CharField(

        blank=True, null=True, name='twitter', help\_text="Twitter", max\_length=200)

    facebook = models.CharField(

        blank=True, null=True, name='facebook', help\_text="Facebook", max\_length=200)

    instagram = models.CharField(

        blank=True, null=True, name='instagram', help\_text="Instagram", max\_length=200)

    linkdin = models.CharField(

        blank=True, null=True, name='linkdin', help\_text="Linkdin", max\_length=200)

    youtube = models.CharField(

        blank=True, null=True, name='youtube', help\_text="Linkdin", max\_length=200)

    def \_\_str\_\_(self):

        return self.nom

    def get\_absolute\_url(self):

        return reverse("medcin\_details", kwargs={'pk': self.pk})

    def get\_shortname(self):

        return f'{self.prenom[0:1]}.{self.nom}'

    def get\_fullname(self):

        return f'{self.prenom} {self.nom}'

class Education(BaseModel):

    formation=models.CharField(max\_length=255,blank=True,null=True,help\_text='Le libelle de la formation')

    ecole=models.CharField(max\_length=255,blank=True,null=True,help\_text="Le libelle de l'cole")

    description = models.TextField(blank=True,null=True) #Short Description of the Education

    date\_debut = models.DateField(blank=True, null=True,help\_text='Date de debut de la formation')

    date\_fin = models.DateField(blank=True, null=True,help\_text='Date de fin de la formation')

    medcin = models.ForeignKey(Medcin,on\_delete=models.SET\_NULL,blank=True,null=True,help\_text='Selectionner le medcin',related\_name="fk\_medcin\_education")

    def \_\_str\_\_(self):

        return f'{self.formation} {self.medcin.nom}'

    def get\_absolute\_url(self):

        return reverse("education\_details", kwargs={'pk': self.pk})

class Experience(BaseModel):

    poste=models.CharField(max\_length=255,blank=True,null=True,help\_text='Le libelle du poste occupé')

    clinique = models.ForeignKey(Clinique,on\_delete=models.SET\_NULL,blank=True,null=True,help\_text='Selectionner la clinique',related\_name="fk\_clinique\_experience")

    description = models.TextField(blank=True,null=True) #Short Description of the Experience

    date\_debut = models.DateField(blank=True, null=True,help\_text='Date de debut de la formation')

    date\_fin = models.DateField(blank=True, null=True,help\_text='Date de fin de la formation')

    medcin = models.ForeignKey(Medcin,on\_delete=models.SET\_NULL,blank=True,null=True,help\_text='Selectionner le medcin',related\_name="fk\_clinique\_experience")

    def \_\_str\_\_(self):

        return f'{self.poste} {self.medcin.nom}'

    def get\_absolute\_url(self):

        return reverse("experience\_details", kwargs={'pk': self.pk})

class Certificat(BaseModel):

    titre=models.CharField(max\_length=255,blank=True,null=True,help\_text='Le libelle du Certificat')

    description = models.TextField(blank=True,null=True) #Short Description of the Certificat

    date = models.DateField(blank=True, null=True,help\_text='Date')

    medcin = models.ForeignKey(Medcin,on\_delete=models.SET\_NULL,blank=True,null=True,help\_text='Selectionner le medcin',related\_name="fk\_Certificat")

    def \_\_str\_\_(self):

        return f'{self.titre} {self.medcin.nom}'

    def get\_absolute\_url(self):

        return reverse("certificat\_details", kwargs={'pk': self.pk})

class Galerie(BaseModel):

    titre=models.CharField(max\_length=255,blank=True,null=True,help\_text="Le libelle de l'cole")

    photo = models.ImageField(upload\_to='medcins/galerie/',blank=True, null=True)

    description = models.TextField(blank=True,null=True) #Short Description of the Galerie

    medcin = models.ForeignKey(Medcin,on\_delete=models.SET\_NULL,blank=True,null=True,help\_text='Selectionner le medcin',related\_name="fk\_medcin\_galerie")

    def \_\_str\_\_(self):

        return f'{self.titre} {self.medcin.nom}'

    def get\_absolute\_url(self):

        return reverse("galerie\_details", kwargs={'pk': self.pk})

class Disponibilite(BaseModel):

    joursDisponibilite=models.CharField(max\_length=255,blank=True,null=True,help\_text='Les jours de disponibilité')

    tempsDisponibilite=models.CharField(max\_length=255,blank=True,null=True,help\_text="Temps de disponibilité")

    medcin = models.ForeignKey(Medcin,on\_delete=models.SET\_NULL,blank=True,null=True,help\_text='Selectionner le medcin',related\_name="fk\_medcin\_disponibilite")

    description = models.TextField(blank=True,null=True,help\_text='Ce champ est ptionnel') #Short Description of the Disponibilite

    # lundi

    heure\_debut\_lundi = models.TimeField(blank=True, null=True,help\_text='Heure de debut')

    heure\_fin\_lundi = models.TimeField(blank=True, null=True,help\_text='Heure de fin de fin fin')

    # mardi

    heure\_debut\_mardi = models.TimeField(blank=True, null=True,help\_text='Heure de debut')

    heure\_fin\_mardi = models.TimeField(blank=True, null=True,help\_text='Heure de fin de fin')

    # mercredi

    heure\_debut\_mercredi = models.TimeField(blank=True, null=True,help\_text='Heure de debut')

    heure\_fin\_mercredi = models.TimeField(blank=True, null=True,help\_text='Heure de fin de fin')

    # jeudi

    heure\_debut\_jeudi = models.TimeField(blank=True, null=True,help\_text='Heure de debut')

    heure\_fin\_jeudi = models.TimeField(blank=True, null=True,help\_text='Heure de fin de fin')

    # vendredi

    heure\_debut\_vendredi = models.TimeField(blank=True, null=True,help\_text='Heure de debut')

    heure\_fin\_vendredi = models.TimeField(blank=True, null=True,help\_text='Heure de fin de fin')

    # samedi

    heure\_debut\_samedi = models.TimeField(blank=True, null=True,help\_text='Heure de debut')

    heure\_fin\_samedi = models.TimeField(blank=True, null=True,help\_text='Heure de fin de fin')

    # dimanche

    heure\_debut\_dimanche = models.TimeField(blank=True, null=True,help\_text='Heure de debut')

    heure\_fin\_dimanche = models.TimeField(blank=True, null=True,help\_text='Heure de fin de fin')

    def \_\_str\_\_(self):

        return f'{self.medcin.nom}'

    def get\_absolute\_url(self):

        return reverse("disponibilite\_details", kwargs={'pk': self.pk})

class SpecialisationMedcin(BaseModel):

    libelle=models.CharField(max\_length=255,blank=True,null=True)

    description = models.TextField(blank=True,null=True) #Short Description of the SpecialisationMedcin

    medcin = models.ForeignKey(Medcin,on\_delete=models.SET\_NULL,blank=True,null=True,help\_text='Selectionner le medcin',related\_name="fk\_SpecialisationMedcin")

    def \_\_str\_\_(self):

        return self.libelle

    def get\_absolute\_url(self):

        return reverse("SpecialisationsMedcin\_details", kwargs={'pk': self.pk})

Re-run the database migrations

python manage.py makemigrations

python manage.py migrate

Django admin site

Django exporte

pip install django-import-export

Registering models

core\admin.py

from django.contrib import admin

from .models import \*

from import\_export.admin import ImportExportModelAdmin

from django import forms

# Register your models here.

@admin.register(Specialite)

class SpecialiteAdmin(ImportExportModelAdmin, admin.ModelAdmin):

    list\_display=('libelle', 'description', )

@admin.register(Departement)

class DepartementAdmin(ImportExportModelAdmin, admin.ModelAdmin):

    list\_display=('libelle', 'description', )

@admin.register(Ecole)

class EcoleAdmin(ImportExportModelAdmin, admin.ModelAdmin):

    list\_display=('libelle', 'description', )

@admin.register(Formation)

class FormationAdmin(ImportExportModelAdmin, admin.ModelAdmin):

    list\_display=('libelle', 'description', )

@admin.register(Specialisations)

class SpecialisationsAdmin(ImportExportModelAdmin, admin.ModelAdmin):

    list\_display=('libelle', 'description', )

@admin.register(Clinique)

class CliniqueAdmin(ImportExportModelAdmin, admin.ModelAdmin):

    list\_display=('libelle', 'description', )

class EduAdmin(admin.StackedInline):

    model= Education

class ExpAdmin(admin.StackedInline):

    model= Experience

# @admin.register(Medcin)

class MedcinAdmin(ImportExportModelAdmin, admin.ModelAdmin):

    list\_display = ('IDMedcin', 'nom', 'prenom', 'email', 'photo', 'telephone', 'pays', 'adresse', 'bio', 'anniversaire', 'genre', 'tags', 'specialite', 'views', 'is\_popular', 'twitter', 'facebook', 'instagram', 'linkdin', )

    ordering=('updated',)

    inlines=[EduAdmin,ExpAdmin]

    list\_filter = ('status', 'genre','specialite','departement')

admin.site.register(Medcin,MedcinAdmin)

@admin.register(Education)

class EducationAdmin(ImportExportModelAdmin, admin.ModelAdmin):

    list\_display=('formation', 'description', 'date\_debut', 'date\_fin', )

@admin.register(Experience)

class ExperienceAdmin(ImportExportModelAdmin, admin.ModelAdmin):

    list\_display=('poste', 'description', 'date\_debut', 'date\_fin', )

@admin.register(Certificat)

class CertificatAdmin(ImportExportModelAdmin, admin.ModelAdmin):

    list\_display=('titre', 'date', 'medcin', )

@admin.register(Galerie)

class GalerieAdmin(ImportExportModelAdmin, admin.ModelAdmin):

    list\_display=('titre', 'description', 'medcin')

@admin.register(Disponibilite)

class DisponibiliteAdmin(ImportExportModelAdmin, admin.ModelAdmin):

    list\_display=('joursDisponibilite', 'medcin', 'description', 'heure\_debut\_lundi', 'heure\_fin\_lundi', 'heure\_debut\_mardi', 'heure\_fin\_mardi', 'heure\_debut\_mercredi', 'heure\_fin\_mercredi', 'heure\_debut\_jeudi', 'heure\_fin\_jeudi', 'heure\_debut\_vendredi', 'heure\_fin\_vendredi', 'heure\_debut\_samedi', 'heure\_fin\_samedi', 'heure\_debut\_dimanche', )

@admin.register(SpecialisationMedcin)

class SpecialisationMedcinAdmin(ImportExportModelAdmin, admin.ModelAdmin):

    list\_display=('libelle', 'medcin', 'description',)

Creating a superuser

python manage.py createsuperuser

Django REST framework

Django REST framework is a powerful and flexible toolkit for building Web APIs.

## [**Installation**](https://www.django-rest-framework.org/#installation)

Install using pip, including any optional packages you want...

pip install djangorestframework

pip install markdown # Markdown support for the browsable API.

pip install django-filter # Filtering support

pip install pygments # We'll be using this for the code highlighting

Add 'rest\_framework' to your INSTALLED\_APPS setting.

INSTALLED\_APPS = [

...

'rest\_framework',

]

If you're intending to use the browsable API you'll probably also want to add REST framework's login and logout views. Add the following to your root urls.py file.

urlpatterns = [

...

path('api-auth/', include('rest\_framework.urls'))

]

We'll create a read-write API for accessing information on the users of our project.

Any global settings for a REST framework API are kept in a single configuration dictionary named REST\_FRAMEWORK. Start off by adding the following to your settings.py module:

REST\_FRAMEWORK = {

    # Use Django's standard `django.contrib.auth` permissions,

    # or allow read-only access for unauthenticated users.

    'DEFAULT\_PERMISSION\_CLASSES': [

        'rest\_framework.permissions.DjangoModelPermissionsOrAnonReadOnly'

    ]

}

Serialization