

Comandos Interesantes

Extractos de la práctica.

Iniciar postgresql en laboratorios EPS

```
sudo systemctl restart postgresql
# CREATE USER alumnodb WITH PASSWORD 'alumnodb' CREATEDB;
```

Entorno virtual Python

```
python3 -m venv venv
source venv/bin/activate
pip install -r requirements.txt
```

Reiniciar base de datos

```
dropdb -U alumnodb psi
createdb -U alumnodb psi
python3 populate_catalog.py
```

Crear el proyecto

```
django-admin startproject <project-name>
```

Crear aplicación

```
python3 manage.py startapp <name>
```

Registrar aplicación

```
Añadir a settings.py en la lista INSTALLED_APPS: 'name.apps.NameConfig'
```

Definir urls (ejemplo catalog)

```
urlpatterns = [
    path('admin/', admin.site.urls),
    path('catalog/', include('catalog.urls')),
    path('', RedirectView.as_view(url='catalog/')),
] + static(settings.STATIC_URL, document_root=settings.STATIC_ROOT)
```

Actualizar base de datos

```
python3 manage.py makemigrations
python3 manage.py migrate
```

Arrancar la web

```
python3 manage.py runserver 8001
```

Crear superusuario

```
python3 manage.py createsuperuser
```

Añadir CSS estático

```
<!-- Add additional CSS in static file -->
{% load static %}
<link rel="stylesheet" href="{% static 'css/styles.css' %}" />
```

O una imagen

```
{% load static %}
![UML diagram]({% static 'images/local_library_model.uml.png' %})
```

Usar una clase para view (Con muchas opciones extra)

```
class BookListView(generic.ListView):
    model = Book
    context_object_name = 'book_list'    # your own name for the list as a template
    variable
    queryset = Book.objects.filter(title__icontains='war')[:5] # Get 5 books
    containing the title war
    template_name = 'books/my_arbitrary_template_name_list.html' # Specify your
    own template name/location

    def get_context_data(self, **kwargs):
        # Call the base implementation first to get the context
        context = super(BookListView, self).get_context_data(**kwargs)
        # Create any data and add it to the context
        context['some_data'] = 'This is just some data'
        return context
```

Ejemplo sin usar clase

```
def book_detail_view(request, primary_key):
    try:
        book = Book.objects.get(pk=primary_key)
    except Book.DoesNotExist:
        raise Http404('Book does not exist')

    return render(request, 'catalog/book_detail.html', context={'book': book})
```

Alternativa

```
from django.shortcuts import get_object_or_404

def book_detail_view(request, primary_key):
    book = get_object_or_404(Book, pk=primary_key)
    return render(request, 'catalog/book_detail.html', context={'book': book})
```

Sesiones

```
# Get a session value by its key (e.g. 'my_car'), raising a KeyError if the key
# is not present
my_car = request.session['my_car']

# Get a session value, setting a default if it is not present ('mini')
my_car = request.session.get('my_car', 'mini')

# Set a session value
request.session['my_car'] = 'mini'

# Delete a session value
del request.session['my_car']

# Set session as modified to force data updates/cookie to be saved.
request.session.modified = True
```

Restringir acceso a una vista

```
from django.contrib.auth.decorators import login_required

@login_required
def my_view(request):
    # ...
```

Comprobar permisos en template

```
{% if perms.catalog.can_mark_returned %}
    <!-- We can mark a BookInstance as returned. -->
    <!-- Perhaps add code to link to a "book return" view here. -->
{% endif %}
```

Comprobar permisos en view

```
from django.contrib.auth.decorators import permission_required

@permission_required('catalog.can_mark_returned')
@permission_required('catalog.can_edit')
def my_view(request):
    # ...
```

Comprobar permisos en view (alternativa con Mixin)

```
from django.contrib.auth.mixins import PermissionRequiredMixin

class MyView(PermissionRequiredMixin, View):
    permission_required = 'catalog.can_mark_returned'
    # Or multiple permissions
    permission_required = ('catalog.can_mark_returned', 'catalog.change_book')
    # Note that 'catalog.change_book' is permission
    # Is created automatically for the book model, along with add_book, and
    delete_book
    # ...
```

ModelForm

```
class RenewBookModelForm(ModelForm):
    def clean_due_back(self):
        data = self.cleaned_data["due_back"]

        if not data:
            raise ValidationError(_("Invalid date - none provided"))

        # Check if a date is not in the past.
        if data < datetime.date.today():
            raise ValidationError(_("Invalid date - renewal in past"))

        # Check if a date is in the allowed range (+4 weeks from today).
        if data > datetime.date.today() + datetime.timedelta(weeks=4):
            raise ValidationError(_("Invalid date - renewal more than 4 weeks
ahead"))

        # Remember to always return the cleaned data.
        return data

    class Meta:
        model = BookInstance
        fields = ["due_back"]
        labels = {"due_back": _("Renewal date")}
        help_texts = {
            "due_back": _("Enter a date between now and 4 weeks (default 3).")
        }
```

Ejemplo de .env

```
POSTGRESQL_URL="postgres://alumnodb:alumnodb@localhost:5432/psi"
DEBUG=true
TESTING=true
ALLOWED_HOSTS='*'
SECRET_KEY='4fa236d892eeeb1cbce626e8eecf097e'
```

Vistas CRUD partir de modelos

```
class BookCreate(PermissionRequiredMixin, CreateView):
    model = Book
    fields = "__all__"
    permission_required = "catalog.add_book"

class BookUpdate(PermissionRequiredMixin, UpdateView):
    model = Book
    # Not recommended (potential security issue if more fields added)
    fields = "__all__"
    permission_required = "catalog.change_book"

class BookDelete(PermissionRequiredMixin, DeleteView):
    model = Book
    success_url = reverse_lazy("books")
```

```
permission_required = "catalog.delete_book"

def form_valid(self, form):
    try:
        self.object.delete()
        return HttpResponseRedirect(self.success_url)
    except Exception as e:
        return HttpResponseRedirect(
            reverse("book-delete", kwargs={"pk": self.object.pk}))
    )
```