

# Informe de Laboratorio 08

## Tema: Django Relaciones

Nota

Estudiante	Escuela	Asignatura
Edyson Darwin Quispe Marca equispemar@unsa.edu.pe	Escuela Profesional de Ingeniería de Sistemas	Programación web 2 Semestre: III Código: 20233483

Laboratorio	Tema	Duración
08	Django Relaciones	04 horas

Semestre académico	Fecha de inicio	Fecha de entrega
2024 - A	Del 30 Mayo 2024	Al 15 Junio 2024

### 1. Tarea

- Implementar aplicaciones donde manejes:
- Relaciones de uno a muchos
- Relaciones de muchos a muchos
- Impresión de pdf
- Envios de emails
- En Django según los videos guías.

### 2. URL de Repositorio Github

- URL del Repositorio GitHub para clonar o recuperar.
- <https://github.com/Evurian/djangoRelaciones>

### 3. Actividades

#### 3.1. Creando los modelos

- Creando la clase DestinosTuristicos con sus atributos

```
1 from django.db import models
2
3 class Author(models.Model):
4     name = models.CharField(max_length=100)
5
6     def __str__(self):
7         return self.name
8
9 class Book(models.Model):
10     title = models.CharField(max_length=200)
11     author = models.ForeignKey(Author, related_name='books', on_delete=models.CASCADE)
12
13     def __str__(self):
14         return self.title
15 class Student(models.Model):
16     name = models.CharField(max_length=100)
17
18     def __str__(self):
19         return self.name
20
21 class Course(models.Model):
22     title = models.CharField(max_length=200)
23     students = models.ManyToManyField(Student, related_name='courses')
24
25     def __str__(self):
26         return self.title
27
```

### 3.2. Creando los forms

- Modificando admin.py.

```
1 from django.contrib import admin
2 from .models import Author, Book, Course, Student
3
4 admin.site.register(Author)
5 admin.site.register(Book)
6 admin.site.register(Course)
7 admin.site.register(Student)
```

### 3.3. Creando los metodos en views

- Añadiendo metodos en views.py

```
1 from django.shortcuts import render, get_object_or_404
2 from django.http import HttpResponse
3 from django.core.mail import send_mail
4 from .models import Author, Book, Course, Student
5 from .utils import render_to_pdf
6
7 def author_books(request, author_id):
8     author = get_object_or_404(Author, id=author_id)
9     books = Book.objects.filter(author=author)
10    return render(request, 'author_books.html', {'author': author, 'books': books})
11
12 def course_students(request, course_id):
13     course = get_object_or_404(Course, id=course_id)
14     students = course.students.all()
15     return render(request, 'course_students.html', {'course': course, 'students': students})
16
17 def generate_pdf(request):
18     context = {'data': 'Hello, PDF!'}
19     pdf = render_to_pdf('pdf_template.html', context)
20     return HttpResponse(pdf, content_type='application/pdf')
21
22 def send_test_email(request):
23     send_mail(
24         'Prueba de asunto',
25         'Este es el mensaje de prueba.',
26         'edqm_04@hotmail.com',
27         ['equispeman@unsa.edu.pe'],
28         fail_silently=False,
29     )
30     return HttpResponse("Correo enviado correctamente.")
31
```

### 3.4. Modificando urls

- Modificando urls en 'myapp'.

```
1 from django.urls import path
2 from .views import author_books, course_students, generate_pdf, send_test_email
3
4 urlpatterns = [
5     path('author/<int:author_id>/', author_books, name='author_books'),
6     path('course/<int:course_id>/', course_students, name='course_students'),
7     path('pdf/', generate_pdf, name='generate_pdf'),
8     path('send-email/', send_test_email, name='send_test_email'),
9 ]
10
```

- Modificando urls en 'myproject'.

```
1 from django.contrib import admin
2 from django.urls import path, include
3
4 urlpatterns = [
5     path('admin/', admin.site.urls),
6     path('', include('myapp.urls')), # Incluye las rutas de la aplicación myapp
7 ]
8
```

### 3.5. Creando html para la pagina web

- Muestra el pdf en un html.

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4     <meta charset="UTF-8">
5     <meta name="viewport" content="width=device-width, initial-scale=1.0">
6     <title>PDF Template</title>
7 </head>
8 <body>
9     <h1>{{ data }}</h1>
10 </body>
11 </html>
```

- Visualizar los cursos relacionados a alumnos.

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Students in {{ course.title }}</title>
7 </head>
8 <body>
9   <h1>Students in {{ course.title }}</h1>
10  <ul>
11    {% for student in students %}
12    <li>{{ student.name }}</li>
13    {% endfor %}
14  </ul>
15 </body>
16 </html>
17
```

- Visualizar los autor y sus libros.

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Books by {{ author.name }}</title>
7 </head>
8 <body>
9   <h1>Books by {{ author.name }}</h1>
10  <ul>
11    {% for book in books %}
12    <li>{{ book.title }}</li>
13    {% endfor %}
14  </ul>
15 </body>
16 </html>
```