```
Laboratorio 3.
Web 3.
Link del Github: https://github.com/Joxini/Lab3Web3.git

-Instalar django:
      -Abrir la terminal:
            pip install django
-Crear Proyecto en el trabajo de Flask:
      - Terminal:
            django-admin startproject Lab3
-Abrir Proyecto en VisualCode o Pycharm

-Abrir terminal:
      cd/Lab3
            -Crear Modulo:
                  python manage.py startapp app

-Abrir archivo settings.py:
      - En INSTALLED_APPS, agregar esto:
            - 'app'

-Probamos:
      python manage.py runserver

- Instalar crispy en Lab3:
      pip install django-crispy-forms

- Crear tabalas de Django:
      terminal:
            - python manage.py makemigrations
            - python manage.py migrate

- Crear usuario en Django:
      - python manage.py createsuperuser
                  username: jocksan
                  password: admin
- Corremos el servidor:
            - python manage.py runserver
- Navegador:
            - http://127.0.0.1:8000/admin
            - username: jocksan
            - password: admin

- directorio: Lab3/templates/registration:
            -login.html:

                  <!DOCTYPE html>
                  <html>
                  <head>
                  <title>Iniciar Sesión</title>
                  </head>
                  <body>
                   <h2>Iniciar Sesión</h2>
                        <form method="post">
                              {% csrf_token %}
                          {{ form }}
                              <button type="submit">Iniciar Sesión</button>
                              <a href="{% url 'registro' %}">Registrarse</a>
                        </form>
                        </body>
```

```html
            </html>

        -registro.html:

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.5.3/dist/css/bootstrap.min.css"
integrity="sha384-TX8t27EcRE3e/ihU7zmQxVncDAy5uIKz4rEkgIXeMed4M0jlfIDPvg6uqKI2xXr2"
crossorigin="anonymous">

    <title>Registrarse</title>
</head>
<body>

    <div class="container">
        <br>
        <br>
        <br>
        <div class="row">
            <div class="col-12 col-md-6 offset-md-3">
                <div class="card">
                    <div class="card-body">
                        <h2>Registrarse</h2>
                        <hr>
                        <form action="" method="post">
                            {% csrf_token %}
                            {{ form  }}
                            <br>
                             <button class="btn btn-success float-left"><a
style="color: azure;" href="{% url 'login'%}">Iniciar Sesion</a></button>
                            <input type="submit" value="Registrarse" class="btn btn-
success float-right">
                        </form>
                    </div>
                </div>
            </div>
        </div>
    </div>

</body>
</html>
```

-Creamos archivo directorio de app: Lab3/app/urls.py
            - urls.py
                - from django.urls import path
                  from .views import base, registro
                      urlpatterns = [
                      path('', base, name='base'),
                      path('registro/', registro, name="registro"),
                      ]

En Lab3/settings.py, agregar esto:
      - LOGIN_REDIRECT_URL = 'http://192.168.18.8:5001/'

En views.py:

```python
    - from django.shortcuts import render, redirect
      from .forms import CustomUserCreationForm
      from django.contrib.auth import authenticate, login
      from django.contrib import messages
      from django.http import Http404
    # Create your views here.

    def base(request):
     return render(request, 'app/base.html')

    def registro(request):
      data = {
        'form': CustomUserCreationForm()
          }
     if request.method == 'POST':
       formulario = CustomUserCreationForm(data = request.POST)
       if formulario.is_valid():
           formulario.save()
           messages.success(request, "Te has registrado correctamente")
           return redirect(to="login")
       data["form"] = formulario
     return render(request, 'registration/registro.html', data)
```

En forms.py:
```python
    - from django import forms
        from django.contrib.auth.forms import UserCreationForm

        class CustomUserCreationForm(UserCreationForm):
         pass
```

En Lab3/urls.py:
```python
     - """
URL configuration for Lab3 project.

The `urlpatterns` list routes URLs to views. For more information please see:
    https://docs.djangoproject.com/en/4.2/topics/http/urls/
Examples:
Function views
    1. Add an import:  from my_app import views
    2. Add a URL to urlpatterns:  path('', views.home, name='home')
Class-based views
    1. Add an import:  from other_app.views import Home
    2. Add a URL to urlpatterns:  path('', Home.as_view(), name='home')
Including another URLconf
    1. Import the include() function: from django.urls import include, path
    2. Add a URL to urlpatterns:  path('blog/', include('blog.urls'))
"""
from django.contrib import admin
from django.urls import path, include

urlpatterns = [
    path('admin/', admin.site.urls),
    path('', include('app.urls')),
    path('accounts/', include('django.contrib.auth.urls')),
]
```

==================En la parte del proyecto de Flask===============================
-En el index.html:
 - {% extends "layout.html"%}

```
{% block titulo %}
<title>Hecho con Flask</title>
{% endblock %}


{% block contenido %}
<a class="btn btn-outline-primary btn-sm float-right" href="{{ url_for('login')
}}">Iniciar sesión</a>
<h3>Control de datos con Flask</h3>
<br/>
<h5>Datos</h5>
<table class="table ">
    <thead class="thead-dark">
    <tr>
        <th scope="col">ID</th>
        <th scope="col">Título</th>
        <th scope="col">Descripción</th>
        <th scope="col">Controles</th>
    </tr>
    </thead>
    <tbody>
    {% for dato in datos %}
    <tr>
        <th scope="row">{{ dato.ID}}</th>
        <td>{{ dato.Texto}}</td>
        <td>{{ dato.Descripcion}}</td>
        <td>
            <button class="btn btn-outline-success btn-sm" onclick="modificar({{
dato.ID }})">Editar</button>
            <script>
                function modificar(ide){
                    window.location.href = "/modificar/" + ide;
                }
                 function borrar(ide){
                window.location.href = "/exec_eliminar/" + ide;
            }

            </script>
            <button class="btn btn-outline-danger btn-sm" onclick="borrar({{ dato.ID
}})">Borrar</button>
        </td>
    </tr>
    {% endfor %}
    </tbody>
</table>
<hr/>
<a class="btn btn-outline-primary btn-sm" href="{{ url_for('agregar') }}">Agregar
dato</a>

{% endblock %}

- En appSitio.py:
    - @app.route('/login')
      def login():
      return redirect('http://127.0.0.1:8000/accounts/login')
```

==================================Tabla comparativa==========================

```
================================Tecnologías================================
Dato por evaluar =============== | PHP            |   Flask    |   Django    |
Requiere servidor dedicado       Apache, Nginx |   NO       |   NO        |
Independencia del servidor web   SI            |   NO       |   NO        |
Documentacion accesible          SI            |   SI       |   SI        |
Seguridad                        SI            |   NO       |   SI        |
Escalable                        SI            |   SI       |   SI        |
Simplicidad                      SI            |   SI       |   NO        |
```