Django Mini Project Plan: Customer Manager Web App

Step 1: Install Django and Start Project

1. pip install django
2. django-admin startproject mysite
3. cd mysite
4. python manage.py runserver

Visit http://127.0.0.1:8000/ to see the default Django page.

Step 2: Create App and Add to Settings

1. python manage.py startapp customers
2. In settings.py, add 'customers' to INSTALLED_APPS.

Step 3: Create Customer Model

Edit customers/models.py:

```
from django.db import models

class Customer(models.Model):
    name = models.CharField(max_length=100)
    email = models.EmailField()
    phone = models.CharField(max_length=15)
    created_at = models.DateTimeField(auto_now_add=True)

    def __str__(self):
        return self.name
```

Then run:
python manage.py makemigrations
python manage.py migrate

Step 4: Setup Admin Panel

In customers/admin.py:

```
from django.contrib import admin
from .models import Customer
admin.site.register(Customer)
```

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Create superuser:

python manage.py createsuperuser

Visit http://127.0.0.1:8000/admin/

Step 5: Show Customer List

In customers/views.py:

```python
def home(request):
    customers = Customer.objects.all()
    return render(request, 'customers/home.html', {'customers': customers})
```

In customers/urls.py:
```python
from django.urls import path
from . import views
urlpatterns = [path('', views.home, name='home')]
```

In mysite/urls.py, include 'customers.urls'.

Template (home.html):
```html
<h1>Customer List</h1>
<ul>{% for customer in customers %}<li>{{ customer.name }} - {{ customer.email }}</li>{% endfor %}</ul>
```

Step 6: Add Customer Form

In customers/forms.py:

```python
from django import forms
from .models import Customer

class CustomerForm(forms.ModelForm):
    class Meta:
        model = Customer
        fields = ['name', 'email', 'phone']
```

In views.py:
```python
def add_customer(request):
    if request.method == 'POST':
        form = CustomerForm(request.POST)
        if form.is_valid():
```

```
        form.save()
        return redirect('home')
    else:
        form = CustomerForm()
    return render(request, 'customers/add_customer.html', {'form': form})
```

In urls.py: path('add/', views.add_customer, name='add_customer')

Step 7: User Authentication

In urls.py:

```
from django.contrib.auth import views as auth_views
path('login/', auth_views.LoginView.as_view(), name='login')
path('logout/', auth_views.LogoutView.as_view(next_page='login'), name='logout')
```

Create registration/login.html:

```
<h2>Login</h2>
<form method='post'>{% csrf_token %}{{ form.as_p }}<button type='submit'>Login</button></form>
```