Django Tables & Grids with Bootstrap

This guide will help you:
- ✅ **Create a Django project and app**
- ✅ **Use Bootstrap for tables & grids**
- ✅ **Display data in a simple, clean way**
- ✅ **Keep the code minimal**

🛠 Step 1: Install Django & Bootstrap

✅ 1. Install Django (If not installed)

pip install django

Verify installation:

django-admin --version

✅ 2. Create a Django Project & App

```
django-admin startproject myproject
cd myproject
python manage.py startapp myapp
```

This creates:
- 💼 myproject/ (Main Project)
- 💼 myapp/ (Django App)

✅ 3. Add `myapp` to `settings.py`

Edit myproject/settings.py and add 'myapp':

```
INSTALLED_APPS = [
    'django.contrib.admin',
    'django.contrib.auth',
    'django.contrib.contenttypes',
    'django.contrib.sessions',
    'django.contrib.messages',
    'django.contrib.staticfiles',
    'myapp',  # Add this
]
```

🌐 Step 2: Setup URLs

Edit myproject/urls.py:

```
from django.contrib import admin
from django.urls import path
from myapp import views

urlpatterns = [
    path('admin/', admin.site.urls),
    path('', views.home, name='home'),  # Home Page
]
```

🎨 Step 3: Create the View (Controller in MVC)

Edit myapp/views.py:

```
from django.shortcuts import render
```

```python
# Sample Data
data = [
    {"id": 1, "name": "Alice", "age": 25},
    {"id": 2, "name": "Bob", "age": 30},
    {"id": 3, "name": "Charlie", "age": 22},
]

def home(request):
    return render(request, 'home.html', {'data': data})
```

✍️ **This will send a list of people to our template for display.**

▉ Step 4: Create an HTML Template with Tables & Grids

Inside myapp/templates/, create a file **home.html**:

```html
Copy
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Table & Grid in Django</title>
    <!-- Bootstrap CDN -->
    <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css">
</head>
<body class="container mt-4">

    <h2 class="text-center">User Table</h2>

    <!-- Bootstrap Table -->
    <table class="table table-bordered table-striped">
        <thead class="table-dark">
            <tr>
                <th>ID</th>
                <th>Name</th>
                <th>Age</th>
            </tr>
        </thead>
        <tbody>
            {% for person in data %}
            <tr>
                <td>{{ person.id }}</td>
                <td>{{ person.name }}</td>
                <td>{{ person.age }}</td>
            </tr>
            {% endfor %}
        </tbody>
    </table>

    <h2 class="text-center mt-5">Bootstrap Grid Example</h2>

    <!-- Bootstrap Grid -->
    <div class="row">
        {% for person in data %}
        <div class="col-md-4">
            <div class="card text-center p-3 mb-3 shadow">
                <h5>{{ person.name }}</h5>
                <p>Age: {{ person.age }}</p>
            </div>
        </div>
        {% endfor %}
    </div>

</body>
</html>
```

🚀 Step 5: Run the Server

```
python manage.py runserver
```

Then visit:
📌 http://127.0.0.1:8000/

🎊 What You Get

1. A **Bootstrap-styled table** displaying user data.
2. A **Bootstrap grid (cards)** for a modern look.
3. **No database needed**—just simple **Python lists** for data.