



Kutubxona

Team	
Status	In progress

1. Models (ORM)

Model nomi: `Books`

- `nomi` (book name)
- `yili` (year of publication)
- `muallif` (author)
- `url` (for redirect/detail)

```
from django.db import models

class Book(models.Model):
    nomi = models.CharField(max_length=200)
    yili = models.IntegerField()
    muallif = models.CharField(max_length=200)
    url = models.URLField(blank=True)
```

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

2. Views

Sahifalar:

- **Base**: Bosh layout (navbar, footer)
- **Home**: Asosiy sahifa
- **Books**: Kitoblar ro'yxati
- **Detail B**: Kitobning batafsil sahifasi
- **Edit Books**: Kitobni tahrirlash
- **Create B**: Yangi kitob qo'shish

```
from django.shortcuts import render, get_object_or_404, redirect
from .models import Book
from .forms import BookForm

# Home sahifasi
def home(request):
    return render(request, 'home.html')

# Kitoblar ro'yxati
def book_list(request):
    books = Book.objects.all()
    return render(request, 'books.html', {'books': books})

# Kitob batafsil
def book_detail(request, id):
    book = get_object_or_404(Book, id=id)
    return render(request, 'book_detail.html', {'book': book})
```

```

# Kitob qo'shish
def create_book(request):
    if request.method == 'POST':
        form = BookForm(request.POST)
        if form.is_valid():
            form.save()
            return redirect('books')
    else:
        form = BookForm()
    return render(request, 'create_book.html', {'form': form})

# Kitobni tahrirlash
def edit_book(request, id):
    book = get_object_or_404(Book, id=id)
    if request.method == 'POST':
        form = BookForm(request.POST, instance=book)
        if form.is_valid():
            form.save()
            return redirect('book_detail', id=book.id)
    else:
        form = BookForm(instance=book)
    return render(request, 'edit_book.html', {'form': form, 'book': book})

# Kitobni o'chirish
def delete_book(request, id):
    book = get_object_or_404(Book, id=id)
    if request.method == 'POST':
        book.delete()
        return redirect('books')
    return render(request, 'delete_book.html', {'book': book})

```

3. URLs

Siz kiritgan URL'lar:

- `/home/`
- `/books/`
- `/book-detail/<id>/`
- `/book-edit/<id>/`
- `/create/`

```
from django.urls import path
from . import views

urlpatterns = [
    path('', views.home, name='home'),
    path('books/', views.book_list, name='books'),
    path('book-detail/int:id/', views.book_detail, name='book_detail'),
    path('book-edit/int:id/', views.edit_book, name='edit_book'),
    path('create/', views.create_book, name='create_book'),
]
```

3.Forms

```
from django import forms
from .models import Book

class BookForm(forms.ModelForm):
    class Meta:
        model = Book
        fields = ['nomi', 'yili', 'muallif', 'url']
        widgets = {
            'nomi': forms.TextInput(attrs={'class': 'form-control'}),
            'yili': forms.NumberInput(attrs={'class': 'form-control'}),
            'muallif': forms.TextInput(attrs={'class': 'form-control'})}
```

```
'url': forms.URLInput(attrs={'class': 'form-control'}),  
}
```

4.HTML

base.html

```
<!DOCTYPE html>  
<html lang="uz">  
<head>  
    <meta charset="UTF-8">  
    <title>{% block title %}Kutubxona{% endblock %}</title>  
    <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/  
</head>  
<body class="bg-dark text-white">  
    <nav class="navbar navbar-expand-lg navbar-dark bg-danger">  
        <div class="container">  
            <a class="navbar-brand" href="{% url 'home' %}">Kutubxona</a>  
            <div>  
                <a class="nav-link d-inline text-white" href="{% url 'books' %}">Kitob</a>  
                <a class="nav-link d-inline text-white" href="{% url 'create_book' %}">Create Book</a>  
            </div>  
        </div>  
    </nav>  
    <div class="container mt-4">  
        {% block content %}  
        {% endblock %}  
    </div>  
</body>  
</html>
```

home.html

```
{% extends 'base.html' %}

{% block title %}Bosh sahifa{% endblock %}

{% block content %}
<h1>Xush kelibsiz kutubxonaga!</h1>
<p>Bu yerda siz kitoblar ro'yxatini ko'rishingiz, tahrirlashingiz yoki yangi kitob qo'shishingiz mumkin!</p>
{% endblock %}
```

books.html

```
{% extends 'base.html' %}

{% block title %}Kitoblar{% endblock %}

{% block content %}
<h2>Kitoblar ro'yxati</h2>
<ul class="list-group">
    {% for book in books %}
        <li class="list-group-item bg-secondary text-white">
            <a class="text-white" href="{% url 'book_detail' book.id %}">{{ book.nom }}</a>
        </li>
    {% empty %}
        <li class="list-group-item">Kitoblar yo'q</li>
    {% endfor %}
</ul>
{% endblock %}
```

book_detail.html

```
{% extends 'base.html' %}

{% block title %}{{ book.nom }}{% endblock %}
```

```
{% block content %}  
<h2>{{ book.nomi }}</h2>  
<p><strong>Muallif:</strong> {{ book.muallif }}</p>  
<p><strong>Nashr yili:</strong> {{ book.yili }}</p>  
<p><strong>Havola:</strong> <a href="{{ book.url }}" target="_blank">{{ book.url }}</a></p>  
<a href="{% url 'edit_book' book.id %}" class="btn btn-warning">Tahrirlash</a>  
<form method="post" action="{% url 'delete_book' book.id %}" style="display:inline-block; vertical-align: middle; margin-left: 10px;">  
    {% csrf_token %}  
    <button type="submit" class="btn btn-danger">O'chirish</button>  
</form>  
{% endblock %}
```

create_book.html

```
{% extends 'base.html' %}  
  
{% block title %}Yangi Kitob{% endblock %}  
  
{% block content %}  
<h2>Yangi kitob qo'shish</h2>  
<form method="post">  
    {% csrf_token %}  
    {{ form.as_p }}  
    <button type="submit" class="btn btn-success">Saqlash</button>  
</form>  
{% endblock %}
```

edit_book.html

```
{% extends 'base.html' %}  
  
{% block title %}{{ book.nomi }} - Tahrirlash{% endblock %}  
  
{% block content %}  
<h2>Kitobni tahrirlash: {{ book.nomi }}</h2>
```

```
<form method="post">
    {% csrf_token %}
    {{ form.as_p }}
    <button type="submit" class="btn btn-primary">Saqlash</button>
</form>
{% endblock %}
```

delete_book.html

```
{% extends 'base.html' %}

{% block title %}{{ book.nomi }} - O'chirish{% endblock %}

{% block content %}
<h2>Haqiqatan ham "{{ book.nomi }}" kitobini o'chirmoqchimisiz?</h2>
<form method="post">
    {% csrf_token %}
    <button type="submit" class="btn btn-danger">Ha, o'chirish</button>
    <a href="{% url 'book_detail' book.id %}" class="btn btn-secondary">Bekor qaytish</a>
</form>
{% endblock %}
```

YANGI QISMGA OTDIK

1. Admin Panel (admin.py)

admin.py faylini ochib, unda Book modelini ro'yxatdan o'tkazing:

```
from django.contrib import admin
from .models import Book

admin.site.register(Book)
```

2. Foydalanuvchi autentifikatsiyasi va boshqa funksiyalar (views.py)

`views.py` fayli qatorini yangilang. Bu yerda:

- **book_list**: Qidiruv (search) va pagination qo'llanilgan.
- **register**: Ro'yxatdan o'tish funksiyasi.
- **login_required** dekoratori yordamida ba'zi sahifalarda avtorizatsiya tekshirilishi mumkin (masalan, kitob qo'shish va tahrir qilish).

```
from django.shortcuts import render, get_object_or_404, redirect
from django.core.paginator import Paginator
from django.contrib.auth.forms import UserCreationForm
from django.contrib.auth import login
from django.contrib.auth.decorators import login_required
from .models import Book
from .forms import BookForm

# Bosh sahifa
def home(request):
    return render(request, 'home.html')

# Kitoblar ro'yxati - qidiruv va pagination qo'llanilgan
def book_list(request):
    query = request.GET.get('q', '')
    books = Book.objects.all()
    if query:
        books = books.filter(nomi__icontains=query)
    paginator = Paginator(books, 5) # Sahifada 5 ta kitob
    page = request.GET.get('page')
    books_page = paginator.get_page(page)
    context = {'books': books_page, 'query': query}
    return render(request, 'books.html', context)

# Kitob batafsil
def book_detail(request, id):
```

```

book = get_object_or_404(Book, id=id)
return render(request, 'book_detail.html', {'book': book})

# Yangi kitob qo'shish (faqat avtorizatsiyadan o'tgan foydalanuvchilar uchun)
@login_required
def create_book(request):
    if request.method == 'POST':
        form = BookForm(request.POST)
        if form.is_valid():
            form.save()
            return redirect('books')
    else:
        form = BookForm()
    return render(request, 'create_book.html', {'form': form})

# Kitobni tahrirlash (faqat avtorizatsiyadan o'tgan foydalanuvchilar uchun)
@login_required
def edit_book(request, id):
    book = get_object_or_404(Book, id=id)
    if request.method == 'POST':
        form = BookForm(request.POST, instance=book)
        if form.is_valid():
            form.save()
            return redirect('book_detail', id=book.id)
    else:
        form = BookForm(instance=book)
    return render(request, 'edit_book.html', {'form': form, 'book': book})

# Kitobni o'chirish (faqat avtorizatsiyadan o'tgan foydalanuvchilar uchun)
@login_required
def delete_book(request, id):
    book = get_object_or_404(Book, id=id)
    if request.method == 'POST':
        book.delete()
        return redirect('books')
    return render(request, 'delete_book.html', {'book': book})

```

```
# Ro'yxatdan o'tish
def register(request):
    if request.method == 'POST':
        form = UserCreationForm(request.POST)
        if form.is_valid():
            user = form.save()
            login(request, user)
            return redirect('home')
    else:
        form = UserCreationForm()
    return render(request, 'register.html', {'form': form})
```

3. URL'lar (urls.py)

`urls.py` faylida yangi marshrutlarni qo'shib, Django'ning autentifikatsiya tizimi uchun login va logout URL'larini ham ko'rsatamiz. (Eslatma: Django'ning `LoginView` va `LogoutView` dan foydalanamiz.)

```
from django.urls import path
from django.contrib.auth import views as auth_views
from . import views

urlpatterns = [
    path('', views.home, name='home'),
    path('books/', views.book_list, name='books'),
    path('book-detail/<int:id>/', views.book_detail, name='book_detail'),
    path('book-edit/<int:id>/', views.edit_book, name='edit_book'),
    path('create/', views.create_book, name='create_book'),
    path('delete-book/<int:id>/', views.delete_book, name='delete_book'),

    # Avtorizatsiya uchun URL'lar
    path('register/', views.register, name='register'),
    path('login/', auth_views.LoginView.as_view(template_name='login.html'), name='login')
```

```
    path('logout/', auth_views.LogoutView.as_view(next_page='home'), name='log
]
```

4. Templates

4.1. base.html

Bu asosiy shablonda har bir sahifa uchun umumiy navbar (kirish, ro'yxatdan o'tish, chiqish havolalari) va Bootstrap uslubi kiritilgan:

```
<!DOCTYPE html>
<html lang="uz">
<head>
    <meta charset="UTF-8">
    <title>{% block title %}Kutubxona{% endblock %}</title>
    <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/
</head>
<body class="bg-dark text-white">
    <nav class="navbar navbar-expand-lg navbar-dark bg-danger">
        <div class="container">
            <a class="navbar-brand" href="{% url 'home' %}">Kutubxona</a>
            <div class="d-flex align-items-center">
                <a class="nav-link d-inline text-white" href="{% url 'books' %}">Kitob<
                <a class="nav-link d-inline text-white" href="{% url 'create_book' %}">
                    {% if user.is_authenticated %}
                        <span class="nav-link d-inline">Salom, {{ user.username }}!</span>
                        <a class="nav-link d-inline text-white" href="{% url 'logout' %}">Ch
                    {% else %}
                        <a class="nav-link d-inline text-white" href="{% url 'login' %}">Kiris
                        <a class="nav-link d-inline text-white" href="{% url 'register' %}">Ro
                    {% endif %}
                </div>
            </div>
        </nav>
        <div class="container mt-4">
```

```
{% block content %}  
{% endblock %}  
</div>  
</body>  
</html>
```

4.2. home.html

```
{% extends 'base.html' %}  
  
{% block title %}Bosh sahifa{% endblock %}  
  
{% block content %}  
<h1>Xush kelibsiz kutubxonaga!</h1>  
<p>Bu yerda siz kitoblar ro'yxatini ko'rishingiz, tahrirlashingiz yoki yangi kitob qo'shishingiz mumkin!</p>  
{% endblock %}
```

4.3. books.html

Bu shablonda qidiruv formasi va pagination navigatsiyasi qo'shilgan:

```
{% extends 'base.html' %}  
  
{% block title %}Kitoblar{% endblock %}  
  
{% block content %}  
<h2>Kitoblar ro'yxati</h2>  
  
<!-- Qidiruv formasi -->  
<form method="get" class="mb-4">  
    <div class="input-group">  
        <input type="text" name="q" class="form-control" placeholder="Qidirish...">  
        <button class="btn btn-outline-secondary" type="submit">Qidirish</button>  
    </div>  
</form>
```

```

<ul class="list-group">
    {% for book in books %}
        <li class="list-group-item bg-secondary text-white">
            <a class="text-white" href="{% url 'book_detail' book.id %}">{{ book.nor
        </li>
    {% empty %}
    <li class="list-group-item">Kitoblar yo'q</li>
    {% endfor %}
</ul>

<!-- Sahifalash (pagination) →
<nav aria-label="Page navigation" class="mt-4">
    <ul class="pagination">
        {% if books.has_previous %}
            <li class="page-item"><a class="page-link" href="?q={{ query }}&page=
        {% else %}
            <li class="page-item disabled"><span class="page-link">Oldingi</span>
        {% endif %}
        <li class="page-item disabled">
            <span class="page-link">
                Sahifa {{ books.number }} / {{ books.paginator.num_pages }}
            </span>
        </li>
        {% if books.has_next %}
            <li class="page-item"><a class="page-link" href="?q={{ query }}&page=
        {% else %}
            <li class="page-item disabled"><span class="page-link">Keyingi</span>
        {% endif %}
    </ul>
</nav>
{% endblock %}

```

4.4. **book_detail.html**

```
{% extends 'base.html' %}
```

```
{% block title %}{{ book.nomi }}{% endblock %}

{% block content %}
<h2>{{ book.nomi }}</h2>
<p><strong>Muallif:</strong> {{ book.muallif }}</p>
<p><strong>Nashr yili:</strong> {{ book.yili }}</p>
<p><strong>Havola:</strong> <a href="{{ book.url }}" target="_blank">{{ book. }}</a>
<a href="{% url 'edit_book' book.id %}" class="btn btn-warning">Tahrirlash</a>
<form method="post" action="{% url 'delete_book' book.id %}" style="display:inline-block; margin-left: 10px;">
    {% csrf_token %}
    <button type="submit" class="btn btn-danger">O'chirish</button>
</form>
{% endblock %}
```

4.5. **create_book.html**

```
{% extends 'base.html' %}

{% block title %}Yangi Kitob{% endblock %}

{% block content %}
<h2>Yangi kitob qo'shish</h2>
<form method="post">
    {% csrf_token %}
    {{ form.as_p }}
    <button type="submit" class="btn btn-success">Saqlash</button>
</form>
{% endblock %}
```

4.6. **edit_book.html**

```
{% extends 'base.html' %}

{% block title %}{{ book.nomi }} - Tahrirlash{% endblock %}
```

```
{% block content %}  
<h2>Kitobni tahrirlash: {{ book.nomi }}</h2>  
<form method="post">  
    {% csrf_token %}  
    {{ form.as_p }}  
    <button type="submit" class="btn btn-primary">Saqlash</button>  
</form>  
{% endblock %}
```

4.7. delete_book.html

```
{% extends 'base.html' %}  
  
{% block title %}{{ book.nomi }} - O'chirish{% endblock %}  
  
{% block content %}  
<h2>Haqiqatan ham "{{ book.nomi }}" kitobini o'chirmoqchimisiz?</h2>  
<form method="post">  
    {% csrf_token %}  
    <button type="submit" class="btn btn-danger">Ha, o'chirish</button>  
    <a href="{% url 'book_detail' book.id %}" class="btn btn-secondary">Bekor qaytish</a>  
</form>  
{% endblock %}
```

4.8. Ro'yxatdan o'tish (register.html)

```
{% extends 'base.html' %}  
  
{% block title %}Ro'yxatdan O'tish{% endblock %}  
  
{% block content %}  
<h2>Ro'yxatdan O'tish</h2>  
<form method="post">  
    {% csrf_token %}
```

```
    {{ form.as_p }}
```

```
    <button type="submit" class="btn btn-success">Ro'yxatdan o'tish</button>
```

```
</form>
```

```
{% endblock %}
```

4.9. Kirish (login.html)

```
{% extends 'base.html' %}
```

```
{% block title %}Kirish{% endblock %}
```

```
{% block content %}
```

```
<h2>Kirish</h2>
```

```
<form method="post">
```

```
    {% csrf_token %}
```

```
    {{ form.as_p }}
```

```
    <button type="submit" class="btn btn-primary">Kirish</button>
```

```
</form>
```

```
{% endblock %}
```

Ushbu barcha kodlarni to'g'ri joylashtirib, Django loyihangizni sozlasangiz, quyidagi funksiyalarga ega bo'lasiz:

- **Admin panel** orqali kitoblarni boshqarish
- Foydalanuvchi tizimiga kirish va ro'yxatdan o'tish
- Kitoblar ro'yxatida qidiruv va sahifalash (pagination)
- To'liq CRUD operatsiyalari

Agar qo'shimcha savollar bo'lsa yoki boshqa funksiyalar kiritishni xohlasangiz, aytib o'ting!

[views.py](#) – Asosiy funksiyalar

```
from django.shortcuts import render, get_object_or_404, redirect
from django.core.paginator import Paginator
from django.contrib.auth.forms import UserCreationForm
from django.contrib.auth import login
from django.contrib.auth.decorators import login_required
from .models import Book
from .forms import BookForm

def home(request):
    return render(request, 'home.html')

def book_list(request):
    search_query = request.GET.get('q', '')
    books = Book.objects.all()
    if search_query:
        books = books.filter(title__icontains=search_query)
    paginator = Paginator(books, 5)
    page = request.GET.get('page')
    books = paginator.get_page(page)
    return render(request, 'books.html', {'books': books, 'search_query': search_query})

def book_detail(request, pk):
    book = get_object_or_404(Book, pk=pk)
    return render(request, 'book_detail.html', {'book': book})

@login_required
def create_book(request):
    if request.method == 'POST':
        form = BookForm(request.POST)
        if form.is_valid():
            form.save()
            return redirect('books')
    else:
        form = BookForm()
    return render(request, 'create_book.html', {'form': form})
```

```

@login_required
def edit_book(request, pk):
    book = get_object_or_404(Book, pk=pk)
    if request.method == 'POST':
        form = BookForm(request.POST, instance=book)
        if form.is_valid():
            form.save()
            return redirect('book_detail', pk=book.pk)
    else:
        form = BookForm(instance=book)
    return render(request, 'edit_book.html', {'form': form})

@login_required
def delete_book(request, pk):
    book = get_object_or_404(Book, pk=pk)
    if request.method == 'POST':
        book.delete()
        return redirect('books')
    return render(request, 'delete_book.html', {'book': book})

def register(request):
    if request.method == 'POST':
        form = UserCreationForm(request.POST)
        if form.is_valid():
            user = form.save()
            login(request, user)
            return redirect('home')
    else:
        form = UserCreationForm()
    return render(request, 'register.html', {'form': form})

```

```

from django import forms
from .models import Book

```

```
class BookForm(forms.ModelForm):
    class Meta:
        model = Book
        fields = ['title', 'author', 'isbn', 'category']
```

```
from django.urls import path
from django.contrib.auth import views as auth_views
from . import views

urlpatterns = [
    path('', views.home, name='home'),
    path('books/', views.book_list, name='books'),
    path('books/<int:pk>/', views.book_detail, name='book_detail'),
    path('books/create/', views.create_book, name='create_book'),
    path('books/<int:pk>/edit/', views.edit_book, name='edit_book'),
    path('books/<int:pk>/delete/', views.delete_book, name='delete_book'),
    path('register/', views.register, name='register'),
    path('login/', auth_views.LoginView.as_view(template_name='login.html'), name='login'),
    path('logout/', auth_views.LogoutView.as_view(next_page='home'), name='logout')
]
```

```
<!DOCTYPE html>
<html lang="uz">
<head>
    <meta charset="UTF-8">
    <title>{% block title %}Kutubxona{% endblock %}</title>
    <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css"/>
</head>
<body>
<nav class="navbar navbar-expand-lg navbar-light bg-light">
    <div class="container-fluid">
        <a class="navbar-brand" href="{% url 'home' %}">Kutubxona</a>
        <div class="collapse navbar-collapse">
            <ul class="navbar-nav me-auto mb-2 mb-lg-0">
```

```

<li class="nav-item"><a class="nav-link" href="{% url 'books' %}">Kitoblar
  {% if user.is_authenticated %}
    <li class="nav-item"><a class="nav-link" href="{% url 'create_book' %}">
      <li class="nav-item"><a class="nav-link" href="{% url 'logout' %}">Chiqish
    {% else %}
      <li class="nav-item"><a class="nav-link" href="{% url 'login' %}">Kirish</li>
      <li class="nav-item"><a class="nav-link" href="{% url 'register' %}">Ro'yish
    {% endif %}
  </ul>
</div>
</div>
</nav>
<div class="container mt-4">
  {% block content %}{% endblock %}
</div>
</body>
</html>

```

HTML Shablonlar

- `home.html` : Bosh sahifa
- `books.html` : Kitoblar ro'yxati
- `book_detail.html` : Kitob tafsilotlari
- `create_book.html` : Yangi kitob qo'shish
- `edit_book.html` : Kitobni tahrirlash
- `delete_book.html` : Kitobni o'chirish
- `register.html` : Ro'yxatdan o'tish
- `login.html` : Kirish

