

```

3 {% block content %}
4 <h2>Books under $50</h2>
5 <ul>
6     {% for book in books %}
7         <li>{{ book.title }} - ${{ book.price }}</li>
8     {% endfor %}
9 </ul>
10 {% endblock %}

```

Books under \$50

```

{% for book in books %}
• {{ book.title }} - ${{ book.price }}
{% endfor %}
{% endblock %}

```

The image shows a development environment with two main windows. The left window is a code editor (VS Code) showing the Django project structure and the code for the 'books_under_50.html' template. The right window is a web browser showing the rendered output of the template.

Code Editor (VS Code):

- Explorer:** Shows the project structure with folders like 'djangoenv', 'django', 'apps', 'bookmodule', 'static', 'templates', and 'usermodule'.
- Code Editor:** Displays the 'books_under_50.html' template code, which extends 'base.html' and contains a block for books under \$50.
- Terminal:** Shows the command 'python manage.py runserver' and the output 'Django HTTP Server on 0.0.0.0:8000 ready to accept connections'.

Web Browser:

- Address Bar:** Shows the URL 'http://127.0.0.1:5500/'.
- Page Content:** Displays the rendered output of the template, showing a heading 'Books under \$50' and a list of books.

Rendered Output:

```

{% extends 'base.html' %}
{% block content %}
<h2>Books under $50</h2>
<ul>
    {% for book in books %}
        <li>{{ book.title }} - ${{ book.price }}</li>
    {% endfor %}
</ul>
{% endblock %}

```

Books with 'qu' in title or author

```

{% for book in books %}
• {{ book.title }} - ${{ book.price }} (Edition: {{ book.edition }})
{% endfor %}
{% endblock %}

```

File Edit Selection View Go Run Terminal Help

django

db.sqlite3 djangoenv db.sqlite3 ...libraryproject U urls.py M books_under_50.html U

djangoenv > djangoenv > apps > templates > bookmodule > books_without_qu.html

1 {% extends 'base.html' %}

2

3

4 {% block content %}

5 <h2>Books without 'qu' in title or author</h2>

6

7 {% for book in books %}

8 {{ book.title }} - {{ book.author }} (Edition: {{ book.edition }})

9 {% endfor %}

10

11 {% endblock %}

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS COMMENTS

PS C:\Users\rooze\OneDrive\Desktop\django>

127.0.0.1:5500/d

قوائم المفصلة الأخرى... ضع قوائم المفصل...

{% extends 'base.html' %} {% block content %}

Books without 'qu' in title or author

{% for book in books %}

• {{ book.title }} - {{ book.author }} (Edition: {{ book.edition }})

{% endfor %}

{% endblock %}

db.sqlite3 djangoenv db.sqlite3 ...libraryproject U urls.py M books_under_50.html U

djangoenv > djangoenv > apps > templates > bookmodule > books_ordered_by_title.html

1 {% extends 'base.html' %}

2

3

4 {% block content %}

5 <h2>Books ordered by title</h2>

6

7 {% for book in books %}

8 {{ book.title }} - {{ book.author }} (Edition: {{ book.edition }})

9 {% endfor %}

10

11 {% endblock %}

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS COMMENTS

PS C:\Users\rooze\OneDrive\Desktop\django>

127.0.0.1:5500/d

قوائم المفصلة الأخرى... ضع قوائم المفصل...

{% extends 'base.html' %} {% block content %}

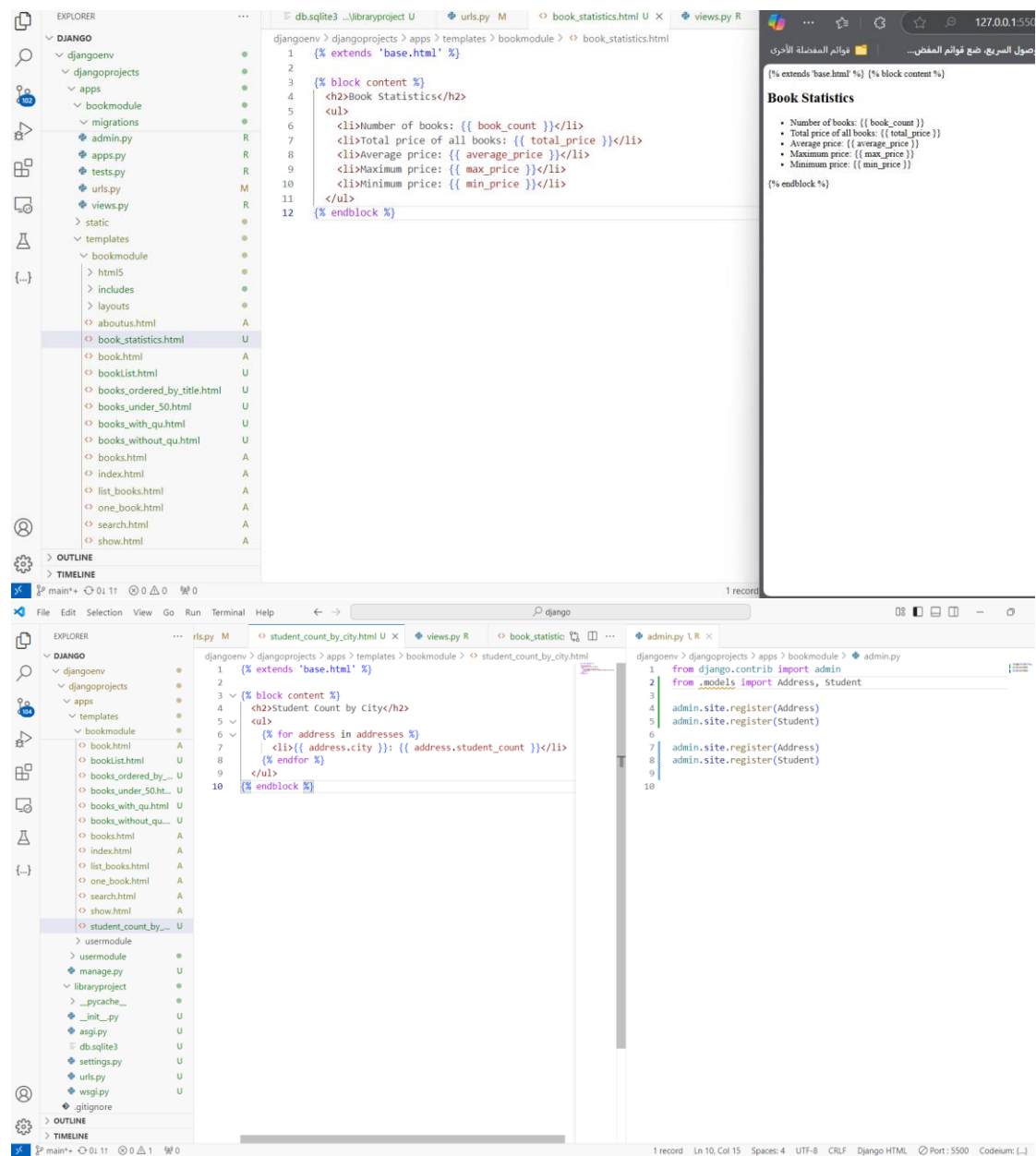
Books ordered by title

{% for book in books %}

• {{ book.title }} - {{ book.author }} (Edition: {{ book.edition }})

{% endfor %}

{% endblock %}



djangoenv > djangoenv > apps > bookmodule > views.py > ...

```
Codeium: Refactor | Explain | Generate Docstring | X
138 def list_books_under_50(request):
139     books = Book.objects.filter(price__lte=50)
140     return render(request, 'bookmodule/books_under_50.html', {'books': books})
141
Codeium: Refactor | Explain | Generate Docstring | X
142 def list_books_with_qu(request):
143     qu_filter = Q(title__contains='qu') | Q(author__contains='qu')
144     books = Book.objects.filter(edition__gt=2).filter(qu_filter)
145     return render(request, 'bookmodule/books_with_qu.html', {'books': books})
146
Codeium: Refactor | Explain | Generate Docstring | X
147 def list_books_without_qu(request):
148     qu_filter = ~Q(title__contains='qu') | Q(author__contains='qu')
149     books = Book.objects.filter(edition__lte=2).filter(qu_filter)
150     return render(request, 'bookmodule/books_without_qu.html', {'books': books})
151
Codeium: Refactor | Explain | Generate Docstring | X
152 def list_books_ordered_by_title(request):
153     books = Book.objects.order_by('title')
154     return render(request, 'bookmodule/books_ordered_by_title.html', {'books': books})
155
Codeium: Refactor | Explain | Generate Docstring | X
156 def display_book_statistics(request):
157     book_count = Book.objects.count()
158     total_price = Book.objects.aggregate(Sum('price'))['price_sum']
159     average_price = Book.objects.aggregate(Avg('price'))['price_avg']
160     max_price = Book.objects.aggregate(Max('price'))['price_max']
161     min_price = Book.objects.aggregate(Min('price'))['price_min']
162
163     context = {
164         'book_count': book_count,
165         'total_price': total_price,
166         'average_price': average_price,
167         'max_price': max_price,
168         'min_price': min_price,
169     }
170
171     return render(request, 'bookmodule/book_statistics.html', context)
172
Codeium: Refactor | Explain | Generate Docstring | X
173 def student_count_by_city(request):
174     addresses = Address.objects.annotate(student_count=Count('student')).order_by('city')
175     return render(request, 'book/student_count_by_city.html', {'addresses': addresses})
176
```

djangoenv > djangoenv > apps > bookmodule > views.py > ...

```
Codeium: Refactor | Explain | Generate Docstring | X
142 def list_books_with_qu(request):
143     return render(request, 'bookmodule/books_with_qu.html', {'books': books})
144
Codeium: Refactor | Explain | Generate Docstring | X
145 def list_books_without_qu(request):
146     qu_filter = ~Q(title__contains='qu') | Q(author__contains='qu')
147     books = Book.objects.filter(edition__lte=2).filter(qu_filter)
148     return render(request, 'bookmodule/books_without_qu.html', {'books': books})
149
Codeium: Refactor | Explain | Generate Docstring | X
150 def list_books_ordered_by_title(request):
151     books = Book.objects.order_by('title')
152     return render(request, 'bookmodule/books_ordered_by_title.html', {'books': books})
153
Codeium: Refactor | Explain | Generate Docstring | X
154 def display_book_statistics(request):
155     book_count = Book.objects.count()
156     total_price = Book.objects.aggregate(Sum('price'))['price_sum']
157     average_price = Book.objects.aggregate(Avg('price'))['price_avg']
158     max_price = Book.objects.aggregate(Max('price'))['price_max']
159     min_price = Book.objects.aggregate(Min('price'))['price_min']
160
161     context = {
162         'book_count': book_count,
163         'total_price': total_price,
164         'average_price': average_price,
165         'max_price': max_price,
166         'min_price': min_price,
167     }
168
169     return render(request, 'bookmodule/book_statistics.html', context)
170
Codeium: Refactor | Explain | Generate Docstring | X
171 def student_count_by_city(request):
172     addresses = Address.objects.annotate(student_count=Count('student')).order_by('city')
173     return render(request, 'book/student_count_by_city.html', {'addresses': addresses})
174
```

main+ 01:11 0 0 1 0 0 1 record Ln 3, Col 25 Spaces: 4 UTF-8 CRLF {} Python 3.12.6

```
20
21 urlpatterns = [
22     path('', views.index, name="books.index"),
23     path('list_books/', views.list_books, name="books.list_books"),
24     path('<int:bid>', views.viewbook, name="books.view_one_book"),
25     path('aboutus/', views.aboutus, name="books.aboutus"),
26     path('buybook/', views.purchase, name="books.purchase"),
27     path('filterbooks/', views.filterbooks, name="books.filterbooks"),
28     path('books/lab8/task1/', views.list_books_under_50, name="list_books_under_50"),
29     path('books/lab8/task2/', views.list_books_with_qu, name="list_books_with_qu"),
30     path('books/lab8/task3/', views.list_books_without_qu, name="list_books_without_qu"),
31     path('books/lab8/task4/', views.list_books_ordered_by_title, name="list_books_ordered_by_title"),
32     path('books/lab8/task5/', views.display_book_statistics, name="display_book_statistics"),
33     path('student-count-by-city/', views.student_count_by_city, name="student_count_by_city"),
34     path('search/', views.search, name="books.search"),
35 ]
```