**config.py**

**python**

**DB\_CONFIG = {**

**"host": "localhost",**

**"user": "crawler",**

**"password": "123456",**

**"database": "crawl\_data"**

**}**

**models.py**

**python**

**from dataclasses import dataclass**

**@dataclass**

**class Book:**

**title: str**

**price: float**

**rating: float**

**url: str**

**db.py**

**python**

**import mysql.connector**

**from config import DB\_CONFIG**

**from models import Book**

**class BookDB:**

**def \_\_init\_\_(self):**

**self.conn = mysql.connector.connect(**

**host=DB\_CONFIG["host"],**

**user=DB\_CONFIG["user"],**

**password=DB\_CONFIG["password"],**

**database=DB\_CONFIG["database"]**

**)**

**self.create\_table()**

**def create\_table(self):**

**query = """**

**CREATE TABLE IF NOT EXISTS books (**

**id INT AUTO\_INCREMENT PRIMARY KEY,**

**title VARCHAR(255) NOT NULL,**

**price FLOAT NOT NULL,**

**rating FLOAT NOT NULL,**

**url TEXT NOT NULL**

**)**

**"""**

**cursor = self.conn.cursor()**

**cursor.execute(query)**

**self.conn.commit()**

**def create\_book(self, book: Book):**

**query = "INSERT INTO books (title, price, rating, url) VALUES (%s, %s, %s, %s)"**

**values = (book.title, book.price, book.rating, book.url)**

**cursor = self.conn.cursor()**

**cursor.execute(query, values)**

**self.conn.commit()**

**def list\_books(self, keyword=None):**

**cursor = self.conn.cursor(dictionary=True)**

**if keyword:**

**query = "SELECT \* FROM books WHERE title LIKE %s ORDER BY id DESC"**

**cursor.execute(query, (f"%{keyword}%",))**

**else:**

**query = "SELECT \* FROM books ORDER BY id DESC"**

**cursor.execute(query)**

**return cursor.fetchall()**

**def get\_book(self, book\_id):**

**cursor = self.conn.cursor(dictionary=True)**

**query = "SELECT \* FROM books WHERE id = %s"**

**cursor.execute(query, (book\_id,))**

**return cursor.fetchone()**

**def update\_book(self, book\_id, book: Book):**

**query = "UPDATE books SET title=%s, price=%s, rating=%s, url=%s WHERE id=%s"**

**values = (book.title, book.price, book.rating, book.url, book\_id)**

**cursor = self.conn.cursor()**

**cursor.execute(query, values)**

**self.conn.commit()**

**def delete\_book(self, book\_id):**

**cursor = self.conn.cursor()**

**cursor.execute("DELETE FROM books WHERE id = %s", (book\_id,))**

**self.conn.commit()**

**app.py**

**python**

**from flask import Flask, render\_template, request, redirect, url\_for, flash**

**from db import BookDB**

**from models import Book**

**app = Flask(\_\_name\_\_)**

**app.secret\_key = "your\_secret\_key\_here"**

**db = BookDB()**

**@app.route("/")**

**def index():**

**keyword = request.args.get("keyword")**

**books = db.list\_books(keyword)**

**return render\_template("index.html", books=books, keyword=keyword or "")**

**@app.route("/add", methods=["GET", "POST"])**

**def add\_book():**

**if request.method == "POST":**

**title = request.form["title"]**

**price = float(request.form["price"])**

**rating = float(request.form["rating"])**

**url = request.form["url"]**

**book = Book(title, price, rating, url)**

**db.create\_book(book)**

**flash("Thêm sách thành công!")**

**return redirect(url\_for("index"))**

**return render\_template("add\_book.html")**

**@app.route("/edit/<int:book\_id>", methods=["GET", "POST"])**

**def edit\_book(book\_id):**

**book = db.get\_book(book\_id)**

**if not book:**

**flash("Không tìm thấy sách.")**

**return redirect(url\_for("index"))**

**if request.method == "POST":**

**title = request.form["title"]**

**price = float(request.form["price"])**

**rating = float(request.form["rating"])**

**url = request.form["url"]**

**new\_book = Book(title, price, rating, url)**

**db.update\_book(book\_id, new\_book)**

**flash("Cập nhật sách thành công!")**

**return redirect(url\_for("index"))**

**return render\_template("edit\_book.html", book=book)**

**@app.route("/delete/<int:book\_id>", methods=["POST"])**

**def delete\_book(book\_id):**

**db.delete\_book(book\_id)**

**flash("Xóa sách thành công!")**

**return redirect(url\_for("index"))**

**if \_\_name\_\_ == "\_\_main\_\_":**

**app.run(debug=True)**

**templates/base.html**

**html**

**<!DOCTYPE html>**

**<html lang="vi">**

**<head>**

**<meta charset="UTF-8" />**

**<title>Quản lý sách</title>**

**<link rel="stylesheet" href="{{ url\_for('static', filename='style.css') }}" />**

**</head>**

**<body>**

**<header>**

**<h1>Quản lý sách</h1>**

**<nav>**

**<a href="{{ url\_for('index') }}">Trang chủ</a>**

**<a href="{{ url\_for('add\_book') }}">Thêm sách</a>**

**</nav>**

**</header>**

**<main>**

**{% with messages = get\_flashed\_messages() %}**

**{% if messages %}**

**<ul class="flash-messages">**

**{% for message in messages %}**

**<li>{{ message }}</li>**

**{% endfor %}**

**</ul>**

**{% endif %}**

**{% endwith %}**

**{% block content %}{% endblock %}**

**</main>**

**<footer>**

**<p>&copy; 2025 Book Manager</p>**

**</footer>**

**</body>**

**</html>**

**templates/index.html**

**html**

**{% extends "base.html" %}**

**{% block content %}**

**<form method="get" action="{{ url\_for('index') }}" class="search-form">**

**<input type="text" name="keyword" placeholder="Tìm theo tiêu đề..." value="{{ keyword }}">**

**<button type="submit">Tìm</button>**

**</form>**

**<table>**

**<thead>**

**<tr>**

**<th>Tiêu đề</th>**

**<th>Giá</th>**

**<th>Rating</th>**

**<th>URL</th>**

**<th>Hành động</th>**

**</tr>**

**</thead>**

**<tbody>**

**{% for book in books %}**

**<tr>**

**<td>{{ book.title }}</td>**

**<td>{{ book.price }}</td>**

**<td>{{ book.rating }}</td>**

**<td><a href="{{ book.url }}" target="\_blank">Link</a></td>**

**<td>**

**<a href="{{ url\_for('edit\_book', book\_id=book.id) }}">Sửa</a>**

**<form action="{{ url\_for('delete\_book', book\_id=book.id) }}" method="post" onsubmit="return confirm('Bạn có chắc muốn xóa không?');" style="display:inline;">**

**<button type="submit" class="btn-delete">Xóa</button>**

**</form>**

**</td>**

**</tr>**

**{% else %}**

**<tr><td colspan="5">Không có sách nào.</td></tr>**

**{% endfor %}**

**</tbody>**

**</table>**

**{% endblock %}**

**templates/add\_book.html**

**html**

**{% extends "base.html" %}**

**{% block content %}**

**<h2>Thêm sách mới</h2>**

**<form method="post" class="form-book">**

**<label>Tiêu đề:</label>**

**<input type="text" name="title" required>**

**<label>Giá:</label>**

**<input type="number" step="0.01" name="price" required>**

**<label>Rating:</label>**

**<input type="number" step="0.1" name="rating" min="0" max="5" required>**

**<label>URL:</label>**

**<input type="url" name="url" required>**

**<button type="submit">Thêm</button>**

**</form>**

**{% endblock %}**

**templates/edit\_book.html**

**html**

**{% extends "base.html" %}**

**{% block content %}**

**<h2>Chỉnh sửa sách</h2>**

**<form method="post" class="form-book">**

**<label>Tiêu đề:</label>**

**<input type="text" name="title" value="{{ book.title }}" required>**

**<label>Giá:</label>**

**<input type="number" step="0.01" name="price" value="{{ book.price }}" required>**

**<label>Rating:</label>**

**<input type="number" step="0.1" name="rating" min="0" max="5" value="{{ book.rating }}" required>**

**<label>URL:</label>**

**<input type="url" name="url" value="{{ book.url }}" required>**

**<button type="submit">Lưu</button>**

**</form>**

**{% endblock %}**

**static/style.css**

**css**

**body {**

**font-family: Arial, sans-serif;**

**margin: 0; padding: 0;**

**background: #f4f6f8;**

**color: #333;**

**}**

**header {**

**background: #004d99;**

**color: white;**

**padding: 15px 20px;**

**display: flex;**

**align-items: center;**

**justify-content: space-between;**

**}**

**header h1 {**

**margin: 0;**

**}**

**nav a {**

**color: white;**

**text-decoration: none;**

**margin-left: 15px;**

**font-weight: bold;**

**}**

**nav a:hover {**

**text-decoration: underline;**

**}**

**main {**

**padding: 20px;**

**max-width: 900px;**

**margin: auto;**

**background: white;**

**box-shadow: 0 0 5px rgba(0,0,0,0.1);**

**}**

**table {**

**width: 100%;**

**border-collapse: collapse;**

**margin-top: 15px;**

**}**

**th, td {**

**border: 1px solid #ddd;**

**padding: 8px;**

**text-align: left;**

**}**

**th {**

**background: #e0e0e0;**

**}**

**.search-form {**

**display: flex;**

**margin-bottom: 10px;**

**}**

**.search-form input[type=text] {**

**flex-grow: 1;**

**padding: 8px;**

**font-size: 16px;**

**}**

**.search-form button {**

**padding: 8px 16px;**

**background: #004d99;**

**color: white;**

**border: none;**

**cursor: pointer;**

**}**

**.search-form button:hover {**

**background: #003366;**

**}**

**.form-book label {**

**display: block;**

**margin-top: 12px;**

**font-weight: bold;**

**}**

**.form-book input {**

**width: 100%;**

**padding: 8px;**

**box-sizing: border-box;**

**}**

**.form-book button {**

**margin-top: 15px;**

**padding: 10px 15px;**

**background: #004d99;**

**color: white;**

**border: none;**

**cursor: pointer;**

**}**

**.form-book button:hover {**

**background: #003366;**

**}**

**.btn-delete {**

**background: #cc0000;**

**color: white;**

**border: none;**

**padding: 5px 10px;**

**cursor: pointer;**

**}**

**.btn-delete:hover {**

**background: #990000;**

**}**

**.flash-messages {**

**list-style: none;**

**padding: 10px;**

**background: #dff0d8;**

**color: #3c763d;**

**border-radius: 5px;**

**}**

**footer {**

**text-align: center;**

**padding: 15px;**

**background: #004d99;**

**color: white;**

**margin-top: 20px;**

**}**