SparkTodo

Your beautiful, modern task manager. Stay organized with style and efficiency.

SparkTodo

A minimal and modern Todo management application built with Spring Boot.
The project focuses on clean UI, complete CRUD functionality, and a simple architecture suitable for learning and demonstration purposes.
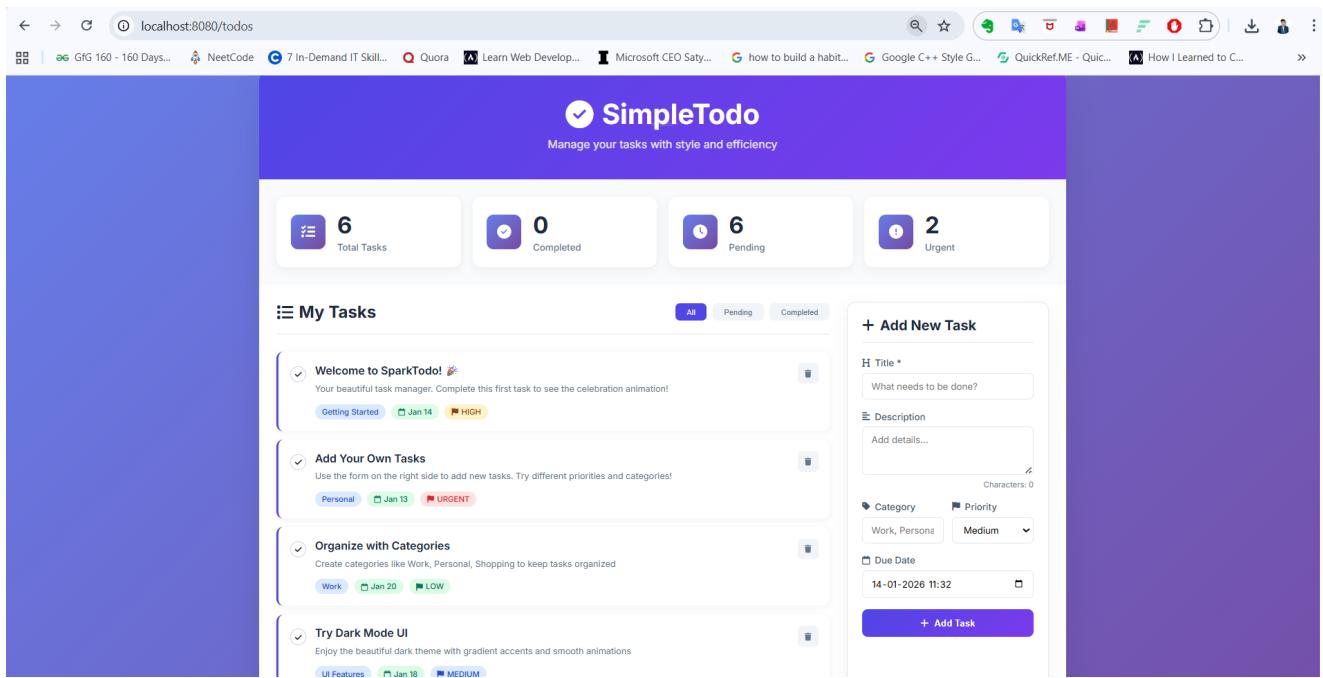
▶ Watch Demo on YouTube (Click on img)

Screenshots

Dashboard

Todo List and Task Creation
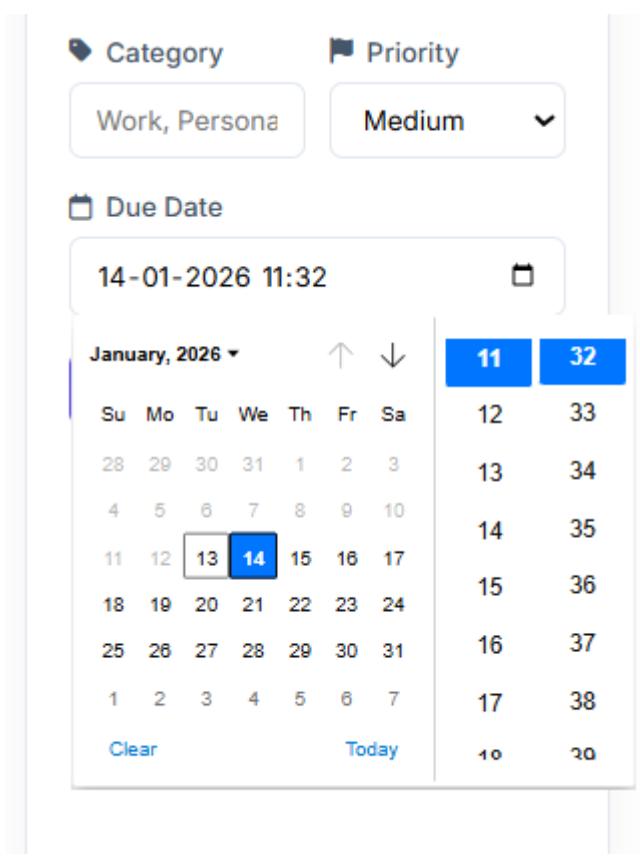
Date and Time Picker

H2 Database Console

English ▼   **Preferences**   **Tools**   **Help**

Login

Saved Settings:	Generic H2 (Embedded) ▼
Setting Name:	Generic H2 (Embedded) Save Remove

Driver Class:	org.h2.Driver
JDBC URL:	jdbc:h2:mem:tododb
User Name:	sa
Password:	

Connect   Test Connection

---

localhost:8080/h2-console/login.do?jsessionid=f470cd34c4214e9d7c3b8362a6f43769

GfG 160 - 160 Days...   NeetCode   7 In-Demand IT Skill...   Quora   Learn Web Develop...   Microsoft CEO Saty...   how to build a habit...   Google C++ Style G...   QuickRef.ME - Quic...   How I Lear

Auto commit   Max rows: 1000 ▼   Auto complete Off ▼   Auto select On ▼

jdbc:h2:mem:tododb
- TODOS
- INFORMATION_SCHEMA
- Users
- H2 2.3.232 (2024-08-11)

Run   Run Selected   Auto complete   Clear   SQL statement:

```
SELECT * FROM TODOS
```

SELECT * FROM TODOS;

COMPLETED	CREATED_AT	DUE_DATE	ID	DESCRIPTION	CATEGORY	TITLE	PRIORITY
FALSE	2026-01-13 17:12:33.113249	2026-01-14 17:12:33.113249	1	Your beautiful task manager. Complete this first task to see the celebration animation!	Getting Started	Welcome to SparkTodo 🎉	HIGH
TRUE	2026-01-13 17:12:33.150262	2026-01-12 17:12:33.150262	2	Check out the beautiful stats cards and UI elements. Try hovering over them!	Tutorial	Explore the Dashboard	MEDIUM
FALSE	2026-01-13 17:12:33.152104	2026-01-13 20:12:33.152104	3	Use the form on the right side to add new tasks. Try different priorities and categories!	Personal	Add Your Own Tasks	URGENT
FALSE	2026-01-13 17:12:33.15441	2026-01-20 17:12:33.15441	4	Create categories like Work, Personal, Shopping to keep tasks organized	Work	Organize with Categories	LOW
TRUE	2026-01-13 17:12:33.15542	2026-01-15 17:12:33.15542	5	Mark tasks as Low, Medium, High, or Urgent priority to focus on what's important	Tips	Set Priorities	HIGH
FALSE	2026-01-13 17:12:33.156462	2026-01-18 17:12:33.156462	6	Enjoy the beautiful dark theme with gradient accents and smooth animations	UI Features	Try Dark Mode UI	MEDIUM
FALSE	2026-01-13 17:12:33.157423	2026-01-13 18:12:33.157423	7	Click the checkbox to complete tasks and watch the celebration animation!	Fun	Complete Tasks for Confetti! 🎊	URGENT
TRUE	2026-01-13 17:12:33.159616	2026-01-13 17:12:33.159616	8	The app works beautifully on desktop, tablet, and mobile devices	Features	Responsive Design	LOW

(8 rows, 10 ms)

Features

- Create, update, delete, and complete tasks
- Task prioritization (Low, Medium, High, Urgent)
- Category-based task organization
- Due date and time support
- Real-time dashboard statistics
- Responsive layout for multiple screen sizes

- Embedded H2 database with web console
- Sample data loaded on application startup

Tech Stack

Backend

- Java 21
- Spring Boot
- Spring Data JPA
- H2 Database
- Thymeleaf
- Lombok

Frontend

- HTML5
- CSS3
- JavaScript
- Font Awesome
- Google Fonts (Inter)

Project Structure

```
todo-app/
├── src/main/java/com/todo/todoapp/
│   ├── TodoAppApplication.java
│   ├── config/DataInitializer.java
│   ├── controller/TodoController.java
│   ├── entity/Todo.java
│   ├── repository/TodoRepository.java
│   └── service/TodoService.java
├── src/main/resources/
│   ├── static/
│   │   ├── css/style.css
│   │   └── js/script.js
│   ├── templates/index.html
│   └── application.properties
├── README.md
├── pom.xml
└── .gitignore
```

Database Schema

```
CREATE TABLE todos (
id BIGINT PRIMARY KEY AUTO_INCREMENT,
title VARCHAR(255) NOT NULL,
description TEXT,
completed BOOLEAN DEFAULT FALSE,
created_at TIMESTAMP,
due_date TIMESTAMP,
priority VARCHAR(20),
category VARCHAR(100)
);
```

yaml
Copy code

Getting Started

Prerequisites

- Java 21+
- Maven 3.6+
- Git

Run Locally

```
git clone
cd todo-app
mvn spring-boot:run
```

yaml
Copy code

Application URLs

- Application: http://localhost:8080/todos
- H2 Console: http://localhost:8080/h2-console

H2 Credentials

```
JDBC URL : jdbc:h2:mem:tododb
Username : sa
Password : (empty)
```

yaml
Copy code

Configuration

```
server.port=8080

spring.datasource.url=jdbc:h2:mem:tododb
spring.datasource.driver-class-name=org.h2.Driver
spring.h2.console.enabled=true

spring.jpa.hibernate.ddl-auto=create-drop
spring.jpa.show-sql=false

spring.thymeleaf.cache=false
```

yaml
Copy code

Sample Data

The application initializes with sample todos to demonstrate:

- Dashboard statistics
- Priority handling
- Categories
- Completed and pending tasks

Troubleshooting

Java Version

java -version

python
Copy code
Ensure Java 21 or higher.

Port Already in Use (Windows)

netstat -ano | findstr :8080
taskkill /PID /F

yaml
Copy code

License

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Notes

This project is intended for learning and portfolio demonstration of:

- Spring Boot MVC
- JPA and database integration
- Server-side rendering with Thymeleaf