# Task Management Application Documentation

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Project Overview:  
This project is a Task Management Application built using Spring Boot and Thymeleaf. It allows users to create, mark as completed, and delete tasks, demonstrating Agile methodologies.  
  
Technologies Used:  
- Spring Boot  
- Thymeleaf  
- H2 Database  
- Maven  
  
Features:  
1. Add tasks with a description.  
2. Mark tasks as completed.  
3. Delete tasks.  
  
Project Structure:  
- TaskManagementApplication.java: Main application entry point.  
- Task.java: Entity class representing a task.  
- TaskController.java: Controller to handle task operations.  
- TaskRepository.java: Repository interface for database interaction.  
- index.html: HTML template for the UI.  
  
Instructions to Run:  
1. Set up the project in an IDE like IntelliJ or Eclipse.  
2. Add the provided dependencies in the pom.xml file.  
3. Run the TaskManagementApplication.java file as a Spring Boot application.  
4. Access the application at http://localhost:8080.  
  
Future Enhancements:  
- Sprint Management  
- Task Prioritization  
- User Authentication  
- Persistent Database Integration

**Instructions to Build and Run the Project**

**Step 1: Set Up a New Spring Boot Project**

1. **Create a New Maven Project**:
   * Open your IDE (e.g., IntelliJ IDEA, Eclipse).
   * Select **Create New Project** → **Spring Boot** → Configure:
     + **Group ID**: com.example
     + **Artifact ID**: taskmanagement.
   * Enable the required dependencies:
     + Spring Web
     + Spring Data JPA
     + Thymeleaf
     + H2 Database
2. **Project Structure**:
   * The IDE will generate the basic folder structure for you. The structure should look like this:

A screen shot of a computer

Description automatically generated

**Step 3: Run the Project**

* Run the TaskManagementApplication class as a Spring Boot application.
* Open your browser and go to http://localhost:8080 to use the application.