

Agile Document

Automated Task Reminder And Tracking Application

Project Overview

The Automated Task Reminder And Tracking Application is a Java-based application developed using Spring Boot to help users manage tasks efficiently. The system allows users to create tasks, set reminder times, receive email notifications, track task status, and generate reports. This project aims to reduce missed deadlines by automating reminders and improving task organization.

Agile Methodology

This project follows the Agile methodology using the Scrum framework. Development is carried out in small iterations called sprints. Each sprint focuses on delivering a working module of the system. Continuous testing, feedback, and improvement are followed throughout the development cycle.

Product Vision

The vision of this project is to create a simple, reliable, and automated task management system that helps users stay organized and never miss important deadlines.

Stakeholders

- **Product Owner:** Infosys Springboard Mentor / Instructor
- **Scrum Master:** Student Developer (Intern)
- **Development Team:** Student Intern
- **End Users:** Individuals who need task reminders

User Stories

ID	User Story
US1	As a user, I want to create a task so that I can manage my work.
US2	As a user, I want to set a reminder time so that I receive alerts.
US3	As a user, I want to receive email reminders so that I don't forget tasks.
US4	As a user, I want to update task status so that I can track progress.
US5	As a user, I want to view all tasks so that I can manage them easily.
US6	As a user, I want to generate reports so that I can analyze my tasks.

Product Backlog

- Task creation and update
- Task deletion
- Reminder scheduling
- Email notification service
- Task status tracking
- Report generation (CSV)
- Database integration
- Exception handling

Sprint Planning

Sprint 1: Project Setup & Core Features

- Project setup using Spring Boot
- Database configuration (MySQL)
- Task entity and repository
- Basic CRUD operations

Sprint 2: Reminder & Email Services

- Implementation of scheduler service
- Email service integration
- Reminder triggering logic
- Email template creation

Sprint 3: Reporting & Optimization

- Task report generation in CSV format
- Task filtering and sorting
- Error handling and validation
- Code optimization and testing

Sprint Review

At the end of each sprint, the completed features are reviewed and demonstrated. Feedback is taken from the mentor, and necessary improvements are planned for the next sprint.

Sprint Retrospective

After each sprint, the development process is analyzed to identify what went well, what needs improvement, and how productivity can be increased in future sprints.

Tools & Technologies

- **Backend:** Java, Spring Boot
- **Database:** MySQL
- **Build Tool:** Maven
- **Scheduler:** Spring Scheduler
- **Email:** JavaMailSender
- **Version Control:** GitHub
- **Testing:** Postman

Conclusion

Using Agile methodology helped in building the Automated Task Reminder System in a structured and efficient manner. Iterative development allowed continuous improvement and ensured that the final product meets user requirements effectively.