Project Summary:

The Java Task Manager project is a desktop application designed to help users organize and manage their tasks efficiently. It provides functionalities such as adding, updating, prioritizing, and deleting tasks, along with the ability to save tasks to a database and load them back. The project aimed to address the need for a simple yet effective task management tool, enhancing users' productivity and time management skills.

What Went Well:

Design Clarity: The initial design phase allowed for clear identification of project requirements, leading to well-defined class structures and database schema.

Functionality Implementation: The core functionalities of the application, including task management and database interaction, were successfully implemented.

Testing: Extensive testing was performed to ensure the application's correctness and robustness.

What Went Poorly:

Time Management: Some aspects of the project, such as database integration, took longer than anticipated, resulting in time constraints for testing and refinement.

User Interface: Due to time limitations, the graphical user interface (GUI) was not implemented, limiting the visual appeal of the application.

Project Requirements Satisfaction:

Task Management: The application allows users to add, update, prioritize, and delete tasks, satisfying the requirement for task management functionalities.

Database Integration: The project includes support for SQLite database integration, allowing tasks to be saved to and loaded from a database, fulfilling the requirement for data storage.

User Interface (Optional): While the GUI was not implemented, the application provides a command-line interface (CLI) for interaction, meeting the basic usability requirement.

Mapping of Design and Implementation Elements:

Class Definitions:

Implemented in separate Java files (Task.java, TaskManager.java).

Defines classes for tasks and task management functionalities.

Database Support:

Implemented in the DatabaseManager.java class.

Handles database connection, table creation, and CRUD operations for tasks.

Functionality Implementation:

Implemented methods in the TaskManager.java class to add, update, delete, display tasks, and save/load tasks to/from the database.

Testing:

Extensive unit testing was performed on individual methods to ensure correctness and robustness.

Integration testing was conducted to validate interactions between different components of the application.