My Anime List - Project Documentation

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1 Anime Overview

1.1 What is Anime?

Anime refers to a distinct style of animation that originated in Japan and has gained popularity worldwide. Characterized by colorful artwork, vibrant characters, and fantastical themes, anime encompasses a wide range of genres, including action, fantasy, science fiction, romance, mystery, and slice-of-life. Unlike Western animation, anime often features complex storylines, mature themes, and a unique cultural depth.

1.2 Origins of Anime

Anime first emerged in Japan in the early 20th century, influenced by both traditional Japanese art and Western animations. The first recognized anime, *Namakura Gatana*, was released in 1917. However, anime reached mainstream popularity after World War II, largely due to the pioneering work of Osamu Tezuka, often known as the "Father of Anime." His style, characterized by expressive characters with large eyes, laid the foundation for modern anime. With the global success of series such as *Dragon Ball*, *Naruto*, *One Piece*, and *Attack on Titan*, anime has become a global cultural phenomenon.

2 Project Purpose: My Anime List

2.1 Overview

The **My Anime List** project is a software application designed to help users manage and interact with a personalized list of anime series. Inspired by popular platforms such as MyAnimeList and AniList, this project demonstrates essential Object-Oriented Programming (OOP) principles—particularly the SOLID principles—in Java. Users can create a structured list of anime, categorize and rate them, and apply filters based on genres or ratings.

2.2 Relation to Anime

This project models a real-world scenario where anime fans wish to catalog and keep track of their favorite anime series. By applying OOP principles, this application organizes anime characteristics into classes and follows solid software architecture, making it maintainable, flexible, and scalable.

2.3 Purpose of the Project

The **My Anime List** project serves several purposes:

- **Understanding OOP and SOLID Principles:** This project is an educational tool, demonstrating Object-Oriented Programming and the SOLID principles essential for creating well-structured code.

- **Anime Management System:** For anime enthusiasts, this project serves as a lightweight anime tracking system, allowing users to add, remove, rate, and filter anime based on personal preferences.

- **Educational Resource for Java Developers:** By reading and interacting with the project, developers can learn to create an organized project using standard Java practices, emphasizing class responsibility, interfaces, and abstraction.

- **Scalability:** Designed with SOLID principles, the codebase is easy to extend, making it possible to add new features without major refactoring.

3 Project Structure

The project is divided into several main packages, each responsible for different parts of the application:

- **Model:** Contains core data classes like `Anime`, with essential attributes such as title, genre, and rating.

- **Repository:** Manages the anime collection in memory and acts as a data storage class.

- **Service:** Contains business logic, including filtering and rating calculations, and implements a `Displayable` interface to standardize anime display.

- **UI:** A simple command-line interface to interact with the anime list, allowing users to view anime data in an organized format.

4 Future Potential

This project has the potential for further development:

- **API Integration:** Integrate with online anime databases (e.g., Jikan API) to fetch real-time anime data.

- **Graphical User Interface:** Implement a GUI using JavaFX to make the application more user-friendly.

- **Enhanced Metadata:** Expand the `Anime` class to include attributes like release year, producer, and duration.

5 Conclusion

The **My Anime List** project combines the rich culture of anime with essential programming concepts, making it both an entertaining and educational tool.

It not only introduces users to anime but also serves as a practical example of applying OOP principles and solid software architecture. By leveraging SOLID principles and clean code practices, this project provides a maintainable, flexible, and readable software foundation.