DS4300 Project Proposal – Group 6

• Group members: Wenting Yue, Yuxi Shen, Yuhan Wang, Xiaofei Xie

• The NoSQL database(s) you intend to use: MongoDB, Python, Neo4j

• A list of data sources (if applicable): MyAnimeList Dataset- csv File

• A high-level description of your application and its significance.

Our application is an innovative personalized Anime Recommendation System that leverages the rich information found in anime datasets. The application is designed to help users discover new anime tailored to their preferences.

With more anime being on air, the great number of titles available makes it increasingly difficult for users to find the content that matches their preferences. Users usually need to read over long Anime descriptions or even start watching a few episodes to find out whether it is a good choice. To save time for users, the personalized Anime recommendation system can help address this problem by providing a user-friendly and intuitive platform that improves the user experience by delivering targeted recommendations.

The dataset we chose contains a larger number of entries, including anime series, user reviews, and ratings. It is challenging to extract useful information from such a complex dataset, making the development of a recommendation system a non-trivial task. By leveraging modern technologies such as MongoDB, Python, and Neo4j, our application can efficiently accommodate new content, user preference, and trends and adapt to the constantly evolving anime industry. One of the most popular techniques used in building recommendation systems is collaborative filtering, which involves analyzing user data to identify patterns and make recommendations based on similar user preferences. For example, we can first find out the important feature the current user care about when watching the input anime, then we can recommend similar anime based on the information of the user's favorite anime genre, figure, producers, or rank of popularity. Moreover, we could recommend the user the incoming animes from the same studio.

By developing a comprehensive and effective anime recommendation engine, we are not only catering to the interests of anime enthusiasts but also contributing to the growth and recognition of the anime industry. Our project has the potential to promote and support both the creators and consumers of anime content, making it an impactful and meaningful endeavor. By the end of this semester, we plan to gather potential users from our class to conduct the User Application Testing to test the precision of our Anime Recommendation System.