SOEN 363 - Peer Review Report

Date: April 21, 2025
Reviewer Name: Mostafa Mohamed
Reviewer ID: 40201893
Reviewer's Team: Team #29 – awesomeTeam
Reviewed Project: Team #6 – Lost Keys
Project Title: Star Wars Data Integration
Team Members: Sydney Campbell, Sarah Daccache, David Flores, [???]

Evaluation

1. Overall Presentation Quality

Rating: Very Good (A)
Comments:
Team Lost Keys delivered an engaging and visually appealing presentation. Despite the absence of audio narration, the detailed slides effectively conveyed their project's scope, goals, and implementations clearly. They successfully outlined their process from relational database design using PostgreSQL to the NoSQL implementation in MongoDB. The presentation's high-quality visuals significantly aided in understanding complex concepts, although including audio explanations would have provided additional clarity.

2. Complexity / Applicability of the Database Application

Rating: Excellent (A+)
Comments:
The team tackled a notably complex and intriguing project by integrating Star Wars canonical data from multiple APIs (SWAPI and Star Wars Databank), involving relational and NoSQL data management. Their database models displayed sophisticated elements like ISA hierarchies, weak entities, and intricate many-to-many relationships. This combination of structured canonical data and narrative-rich metadata demonstrates strong real-world relevance and complexity.

3. Use of Technology

Rating: Excellent (A+)
 Comments:
 Lost Keys showcased outstanding technical proficiency in both PostgreSQL and MongoDB. They clearly presented their query implementations, including basic search queries, aggregation, and performance optimization via indexing. The provided metrics demonstrated substantial performance gains, notably a ~3,055x improvement for full-text searches and 12.5x faster execution for aggregation queries due to strategic indexing.

4. Addressing Project Challenges

Rating: Excellent (A+)
 Comments:
 The team effectively highlighted and resolved significant technical challenges, particularly in migrating data from relational schemas to a NoSQL (MongoDB) format. Their strategic handling of foreign keys, many-to-many joins, ISA hierarchies, and data duplication issues demonstrated thoughtful, careful planning, and practical problem-solving skills.

5. Teamwork and Participation

Rating: Good (A-)
 Comments:
 Although the presentation slides and project depth indicate cohesive and collaborative teamwork, the absence of audio narration made it difficult to assess individual team members' direct contributions. Including individual speaking roles in future presentations would provide clearer insight into each member's involvement and responsibilities.

Additional Comments & Suggestions

- The integration of SWAPI and Star Wars Databank APIs was highly effective, enriching the database's usability and relevance.

- The presentation of indexing and query performance improvements was especially commendable; visually displaying these metrics clearly highlighted the team's technical achievements.

- For future improvements, consider adding audio narration or individual contributions to enhance clarity regarding teamwork and collaboration.

Conclusion

Team #6 (Lost Keys) delivered a technically robust and practically relevant database system, effectively integrating structured and narrative data sources. Their thorough handling of advanced database concepts, combined with notable performance optimizations, reflects exceptional technical proficiency and careful project execution. Overall, their project successfully achieved its goals and showcased impressive complexity and depth.

Reviewer Signature
Mostafa Mohamed
April 21, 2025