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Group 1 Documentation

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Introduction

The assignment was to code a complete club membership application in Java with built-in database functionality. The program consisted of 6 classes, namely, MainMenu, AddMember, UpdateMember, DeleteMember, Report, and DatabaseUtil. The AddMember, UpdateMember, and DeleteMmber served to support CRUD database operations. The program used the Java Swing UI framework to create a Graphical User Interface for interacting with the program. Two hours were allotted to complete the experiment with 30 minutes of setup time.

For this experiment it was decided to use a software stack consisting of several components. The project was developed using Java. A MySQL database (included in XAMPP) was chosen as the backend for ease of management. The Oracle JDBC driver was implemented to connect the Java application to the MySQL database. For the development of the application Visual Studio Code was found to be a suitable IDE due to its simple integration with GitHub for version management. These features were used in conjunction with GitHub desktop for CI/CD and development of the Java software.

Data Collection

1. 30 Minutes Setup, 2 Hours Development
2. 5 (3 Mostly complete, 2 partially)
3. NA
4. About 5 Syntax errors, no logical errors encountered (Did not perform many tests).
5. For the purposes of this experiment we found that 2 hours was insufficient to develop a fully functioning java application in line with the requirements. We feel that using tools such as ChatGPT would have significantly sped up the process of generating the Java boilerplate code, which took a large majority of the time allotted.
6. The application was not finished. We were unable to get the connection between the database and the Java app finished. We were also unable to finish the GUI for

UpdateMember and Report. This meant we could not perform as many test cases as we would have liked.

Post-Development

1. We understand the requirements of the application well, but were unsuccessful in implementing them within the time frame. With more time we would be able to finish the application.
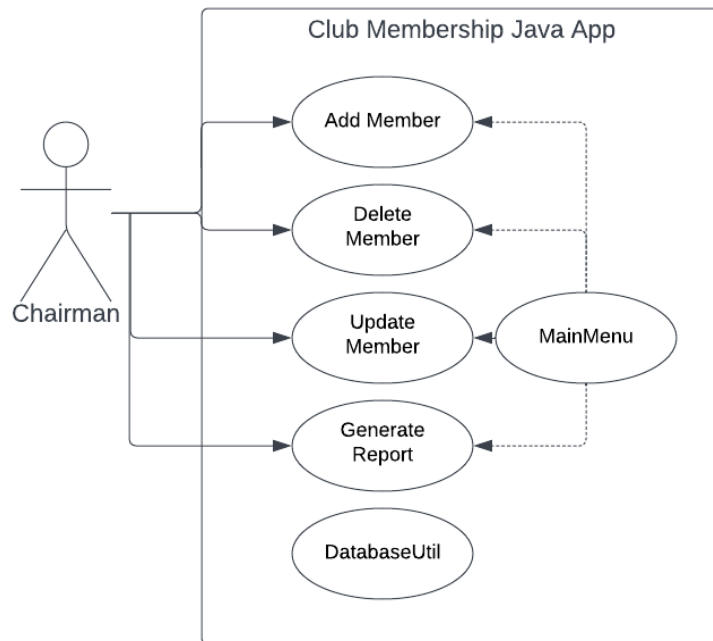
2. NA

Github Repository

https://github.com/Tsimmsz/Group1ClubMembership

UML Diagram:

Table Design:

Members	
id	int(255)
firstName	varchar(255)
lastName	varchar(255)
email	varchar(255)
duesPaid	int(255)
duesPaidDate	date
renewalDate	date
membershipLevel	varchar(255)
status	varchar(255)