Lebanese American University

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Group 6

Database Systems - 10554

Section 31 – MWF

Instructor: Joe Tekli

**Library Management System**

**Apollo Script**

Group:

**Name:** Mahmoud Kebbi

**ID#:** 202100351

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Introduction

The goal of this project is to develop an application that allows users to easily manage a database and manipulate the data inside the database. Apollo Script is a management system application which is relatively small size. It is designed to be used by a local library to manage entities including but not limited to users, staff, books, computers, study rooms etc. The data about all the entities and relationships is stored in a SQL relational database. Client users will be able to view books, details and statistics of their profile, and reserve study rooms. On the other hand, staff and admin users will have broader and more advanced privileges. The application will be using the JavaFx and Spring Boot framework, and the SQL database will be designed and managed on a MySQL Server. The collaboration on the project was done with the aid of Git and GitHub.

# Background:

## Why Apollo Script?

Given the objective of this project, a library management Java application was chosen to be developed for the following reasons:

1. Library management applications allow access and management of valuable information and have many real-world applications.
2. Existing databases for bookshops are plentiful and easy to acquire.
3. A library management system demands management and manipulation of data has significant variety, size, and complexity.
4. Java is a programming language all team members are accustomed to.
5. Opportunity to further enhance our skills in Java, SQL, and XML.

## Problem:

A program was needed to efficiently handle well structured and normalized data, and provide an easy and interactive graphical user interface for both client and admin users of the library management system application