

# SCHOOL OF COMPUTER SCIENCES

## UNIVERSITI SAINS MALAYSIA

CMT221/CMM222: Database Organization and Design

Semester 1, Academic Session: 2021/2022

### System Planning

*Group 14*

*Case Study 03 : Library Management System*

Name	Matric No.	USM Email	Module	Role	Core/Minor
Faizal Salim	140585	<a href="mailto:faizalbinsalim@student.usm.my">faizalbinsalim@student.usm.my</a>	Staff	Leader	Core
Anjumanara Athina	155142	a.athina2001@student.usm.my	Visitors	Member	Core
Mohammad Syaquir Bln Zahir	153621	syaqirzahir01@student.usm.my	Books	Member	Core
Abdul Rahman Rana Tariq	140580	abdulrahmantrq12@student.usm.my	Library	Member	Core

Date of Submission

21 November 2021

## **Case Study [03]:Avade University Library Management Database System**

### **[Library Management System]**

#### **Modules**

##### **Module 1:**

· This module will tell which library the person is at based on the fact that there are 3 libraries at Avade university each library has its own unique code, name, location, building name, office number and opening hours ·Readers present outside each library keep track of its users by knowing which of the three libraries they are at. Everytime a user enters a library when they scan their id cards which have a unique ID number stored, the system stores the Check-in date, check-in time, ID number, check-out date, check-out time, and the count of the visitors, this count is reset everyday. The library module will also provide computers for its visitors, which will ask the visitor for its visitor id to gain access.The computers have their own unique ID which tells the user its brand, Windows version, CPU model, RAM, its status(available or not) after the visitor ID is entered.

Member: Abdul Rahman Rana Tariq

##### **Module 2: Staff [Librarian/Non-Librarian]**

· This module will store all the staff details both librarian and non-librarian. Each staff member has their own unique details such as staff ID, name, staff phone number and staff email. Each librarian has a relevant degree, a designated librarian title and a URL linked to their professional biography. A non-librarian works in shifts and has only general positions in the library (e.g., front desk officer, IT support, etc.). Each librarian has a relevant degree, a designated librarian title and a URL linked to their professional biography. A non-librarian works in shifts and has only general positions in the library (e.g., front desk officer, IT support, etc.). Each staff belongs to only one division of the library, and the division has a division code, division name, and division head. Each division manages different types of books. Each staff member is assigned many roles, and the system needs to store the description of the role briefly.

· Member: Faizal Salim

##### **Module 3: Visitors**

- This module will count visitors whenever they visit the library and count will update every day. Visitor ID log in. Each computer has a unique ID, brand, Windows Version, CPU model, RAM and it's status. It'll store loan date, loan time, due date, and loaned record. To place a hold, you need to fill visitor ID, books and can renew the books twice. If a book is lost or stolen, each charge should have a unique transaction ID, transaction date, transaction time, reason of charge, total amount of charges, payment status. Each card has a unique Visitor ID, their name, students and the amount of fine.

- Member: Anjumanara Athina

#### **Module 4: Books**

- This module will store the book's unique ID (ISBN), title, price, authors, edition, published date, price, publisher, and book status. Every author also will have a unique ID and their name will be stored in the system. Publisher name, printing location and official website are stored as well . This module will update the status of the book, whether it is loanable or not, and the borrow request result for the user. Finally, any transaction will be stored in this module.

- Member: Mohammad Syaqir Bin Zahir