Assignment 1 Cover Sheet

IT1060 – Software Process Modeling   **Semester 1 Year 01 Semester II‑ 2022**

PROJECT ID	MLB_01.01_12
CASE STUDY NAME	Library management system
CAMPUS/CENTER	Malabe

Group Details:

	Student Registration Number	Student Name
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4	IT21823220	Vithanage H.P

BSc (Hons) in Information Technology

Assignment 1 Certify Sheet

IT1060 – Software Process Modeling   **Semester 1** Year

01 Semester II- **2022**

We hereby certify,

☑ The attached is our own work and no further changes will be made.

☑ We have contributed in this assignment to the best of our ability.

And we understand,

☑ We may be subject to student discipline processes in the event of an act of academic

misconduct by us including an act of plagiarism or cheating.

Group Details:

	Student Name	Student Registration Number	Date	Signature
1	IT21826368	Nanayakkara Y.D.T.D	10/10/2022	
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Use case Diagram

https://drive.google.com/file/d/1xu6hIvNnL6_xhcK4Q7yiEdOoz7h-GmNZ/view?usp=sharing

Use Case Scenarios

As IT21826368,

1. Section Worked on:
   - Design the use case for the actor "Librarian".
   - Design the use case scenario for "Manage Members".

2. Special Contribution:
   - Helped with the use case drawing.
   - Finalizing and compiling the project report.

3. Challenge faced:
   - Difficulty in determining user case scenario parts.
   - Choosing suitable scenarios for the actor.

Number	LMS01	
Name	Remove a member.	
Summary	Removing a member from database.	
Preconditions	Member must be in the database.	
Postconditions	Delete the member details from the database.	
Primary Actor(s)	Librarian	
Trigger	Remove member.	
Main Scenario	**Step**	**Action**
	1.	Login to the system as librarian.
	2.	Go to the librarian system interface.
	3.	Select manage members.
	4.	Go to the member requests for see resignation requests.
	5.	Select the member.
	6.	Select remove the member option.
	7.	System removes access and cancels the membership card.
	8.	System deletes the member from database.
Extension	**Step**	**Branching Action**
	1a.	If the librarian inputs the incorrect id and password, Display "ID or Password is incorrect".
	5a.	If the member has a fine, the fine must be paid to complete the resignation.
	5b.	If the member has borrowed a book or books, books must be given back to the library.
	8a.	If the member details are deleted, Display "Account Details Deleted Successfully".

As IT21820946,

1. Section Worked on:
   - Designed the use case for the actor "Member".
   - Designed the use case scenario for "Borrow book".

2. Special Contribution:
   - Supported to draw the user diagram.
   - Helped to choose the user cases and actors.

3. Challenge faced:
   - Identifying unclear paths in use case diagram.
   - Complexity when choosing the scenarios.

Number	LMS02	
Name	Borrow book.	
Summary	Reserve and borrow book	
Preconditions	Member must be validated.	
Postconditions	Add and display the book details to members database.	
Primary Actor(s)	Member	
Trigger	Borrow books.	
Main Scenario	Step	Action
	1.	Go to the website.
	2.	Search for the book by typing author, ISBN, book name, etc.
	3.	Preview the book.
	4.	Click the "reserve book" option.
	5.	Login in as a member.
	6.	The system checks the overdue books.
	7.	Reserve the book.
	8.	Borrow the reserved book.
	9.	Add the borrowed books to the user database.
Extension	Step	Branching Action
	2a	If the search book is not in the library, display "Book is not found in the library" and ask the user to send an inquiry.
	5a	If the member enters the incorrect ID or the password, display "Incorrect ID or password".
	6a	If there are overdue books, display to pay the fine first.

As IT21822612,

1. Section Worked on:
   - Design the use case for the actor "Assistant librarian" and "Guest".
   - Design the use case scenario for "Issuing books".

2. Special Contribution:
   - Draw the final use case diagram.
   - Giving some ideas to another use case scenarios.

3. Challenge faced:
   - Finding correct references.
   - Hard to determine the process of a library management system.

Number	LMS03	
Name	Issuing books.	
Summary	Issue the books to member.	
Preconditions	Not having a fine.	
Postconditions	Issue a book to member.	
Primary Actor(s)	Assistant librarian	
Trigger	Issue book.	
Main Scenario	**Step**	**Action**
	1.	Login to the system.
	2.	Go to the manage library.
	3.	Select issue book.
	4.	Enter member id and validate member.
	5.	Enter book id.
	6.	System check the book in the inventory.
	7.	Set book return date.
	8.	Submit.
	9.	Add books to member's account.
Extension	**Step**	**Branching Action**
	1a	If user enter incorrect username or password, display "Enter correct password".
	4a	Check member id in the database to validate.
	4b	If a member has a fine, member should pay fine before borrowing a book.
	5a	If a member needs another book, system checks membership type, is it "premium member".
	5b	If member is not a premium member, display "not a premium member".
	6a	If book is not in the library, display" book is not available".

As IT21823220,

1. Section Worked on:
   - Design the use case for the actor "Admin".
   - Design the use case scenario for "Add system user".

2. Special Contribution:
   - Help to create the use case diagram.
   - Implementing new ideas when making use case diagrams and scenarios.

3. Challenge faced:
   - Time management Issues when creating use case diagrams.
   - Hard to find the right references when creating use cases.

Number	LMS04	
Name	Add system user.	
Summary	Adding a new user as a system user.	
Preconditions	Employee must not be already registered in the system.	
Postconditions	User can access to the system.	
Primary Actor(s)	Admin	
Trigger	Add new user to system.	
Main Scenario	Step	Action
	1.	Log in as an admin.
	2.	Go to manage user.
	3.	Select add new user.
	4.	Enter user details.
	5.	System checks the user in the database using user details.
	6.	Create the username.
	7.	System checks the username already exists.
	8.	Create the password and enter again.
	9.	Assign the roles.
	10.	Submit data.
	11.	System adds user details to the database.
	12.	Send login details to user's email.
Extension	Step	Branching Action
	1a	If Admin enters wrong username and password, Display "Incorrect Admin ID or Password".
	7a	If the user is existing, Display "This user is already existing".
	8a	If the Password doesn't match, Enter again.
	10a	If details add to the database, Display "System User Added successfully".