Sri Lanka Institute of Information Technology

Internet and Web Technologies – IT1100

B.Sc. (Hons) in Information Technology

Assignment 1

MLB_01.01_12
Y1.S2. WD 01.01

Library management system

Internet and Web Technologies – IT1100

B.Sc. (Hons) in Information Technology

Group Details

Group Number: MLB_01.01_12

Project Title: Library Management System

	Student Name	**Student Registration Number**	**Date**	**Signature**
1	**IT21826368**	**Nanayakkara Y.D.T.D**	09/28/2022	
2	**IT21820946**	Weragala R.T.L	09/28/2022	
3	**IT21822612**	Mendis H.R.M	09/28/2022	
4	**IT21823220**	Vithanage H.P	09/28/2022	

Contents

1. **Introduction**

As the first year second semester undergraduate students of computing at the Sri Lankan Institute of Information Technology, we were assigned in the module Internet and web Technologies to propose a Library Management system to implement in libraries that manage library inventories and daily interactions.

As the solution, we can present our proposed library management system Which we were focused on easing the full management of a library for the system users such as the librarians and its staff. From the administrative user perspective, he/she who uses the system can manage all the members, inventory, and staff users. Staff can also manage the library and assist the admins using our library management system.

As a member user he/she will be able to get full library experience like registering for membership by own self, searching and reserving the books and if a problem arises, he/she can inquiries.

In the report, we have included respectively the user personas, user journals and wireframes of the proposed website application. Lastly, we have used Mockflow.com and word as tool to finalizing this report.

1. Personas.

2.1. 1st Persona – Guest

Kamal Fernando

Age: 30
Status: Married
Occupation: Author
Location: Flower road, Malabe

Motivation
- Learn to start a blog site

Goals
- Find related reference books for the topic
- Learn how to write professional blogs

Technical Ability
- Grammar skills
- Creative thinking

Biography:
Kamal is a professional Author. As for a hobby he expecting to start a blog site. So he involves visiting library website and finding books related to his topic. In order to keep up with his busy life he utilizes his local library's website to check topics and learning materials are available.

Prasanna Chandimal
Undergraduate Student

About:
- 25 years
- 10k-20k month
- Sri lanakan

Goals:
- Find and reserve a book regarding object-oriented concepts.
- Finding the books realated to computer science

Frustrations:
- Bad member management
- No finding wanted book

Motivation:
- To learn object-oriented concepts

Bio:
Prasanna is a undergraduate student who interested in software concepts and likes to become a software engineer. He was always interset in computer science and other electronic Stuffs. He is currently studing a computer degree. In most days he Do not have any lesuire time to read books.

Technical Ability:
- Intermediate programmer in languages like Python, C, and C++.

2.3. 3rd Persona – Assistant librarian

Dilini Vithanage
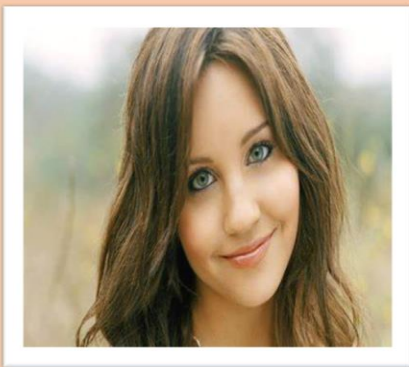
Biography:
This is a new role for Dilini and she is quite familiar with new systems and technology. She has experience as a librarian when she was in school.

"A book is a gift you can open again and again"

Age:23
Occupation: Lecturer
Status: Single
Location: Galnava,Anuradhapura

Motivation
• Spread reading among young people

Goals
• To learn specific technologies that are relevant to her work.
• Study kids psychology.

2.4. 4th Persona- Librarian

Nuwani Arundathi

Age: 26
Occupation: Librarian
Status: Engaged
Location: Maharagama, Colombo

Biography
Reading is Mrs. Nuwani's passion. She does not have much work experience as a librarian. Before becoming a librarian she was an undergraduate at the University of Moratuwa.

Motivation
- Managing the library in an organized way.

Goals
- Be familiar with modern Information Technology
- Finding simple web platform for the library

Technical ability
- Basic knowledge of markup languages.
- Data entry ability in MS word and excel

2.5. 5th Persona- Admin

Brian Fernando

Motivation:

•Manage books and members without any struggle.

•Time management.

Goals:

• Find a good member management web platform.
•Compare the book inventory management in the management system and select a suitable one.

Technical Ability:

•Data entry ability in word and excel.

•Intermidiate skills at phototgraphy.

Bio:

Brian is a part time photographer who worked as a libraian. He likes to manages the library members and books easily using modern softwares. Brain also dislikes to the waste the time on maintainig bulky data structures.

28 years
Malabe
Photographer

3. User Journey

3.1. User journey 1 - Registering – persona 1

Kamal Fernando

- **Kamal is a member of the library**

Log into the user account.

Pay the libraray membership fees.

Submit the details.

Fillin the sign up details.

Select the sign up details.

"Kamal wants to write a book"

Land on the Website via an advertsement.

- **Registering and paying the membership fee is a must for him"**

Search the internet and search for a online library.

3.2. User Journey 2 - Reserve a book - Persona 2.
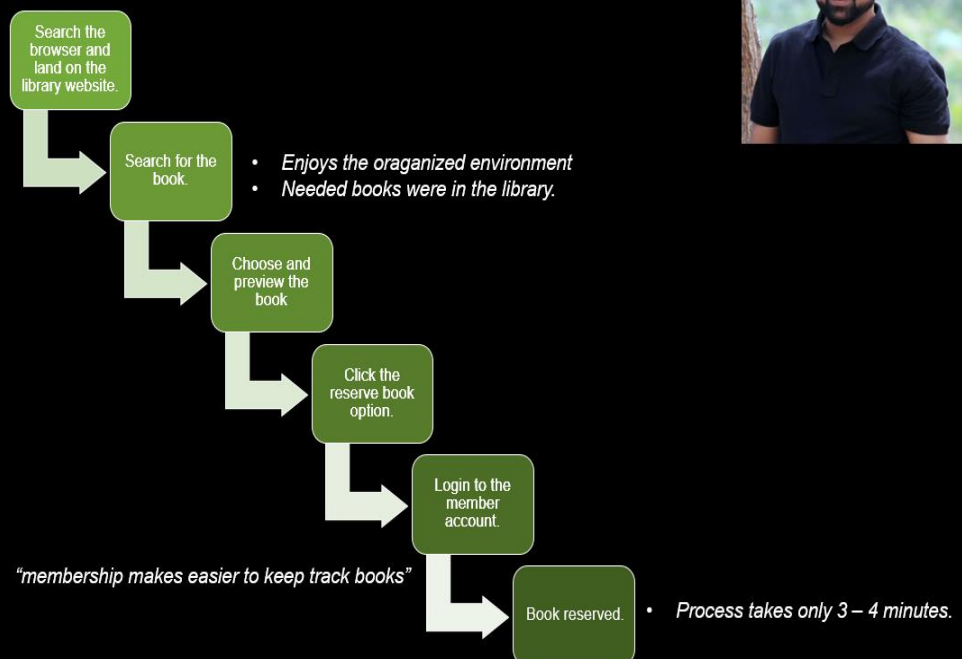
3.3. User Journey 3 – Issuing a book – persona 3
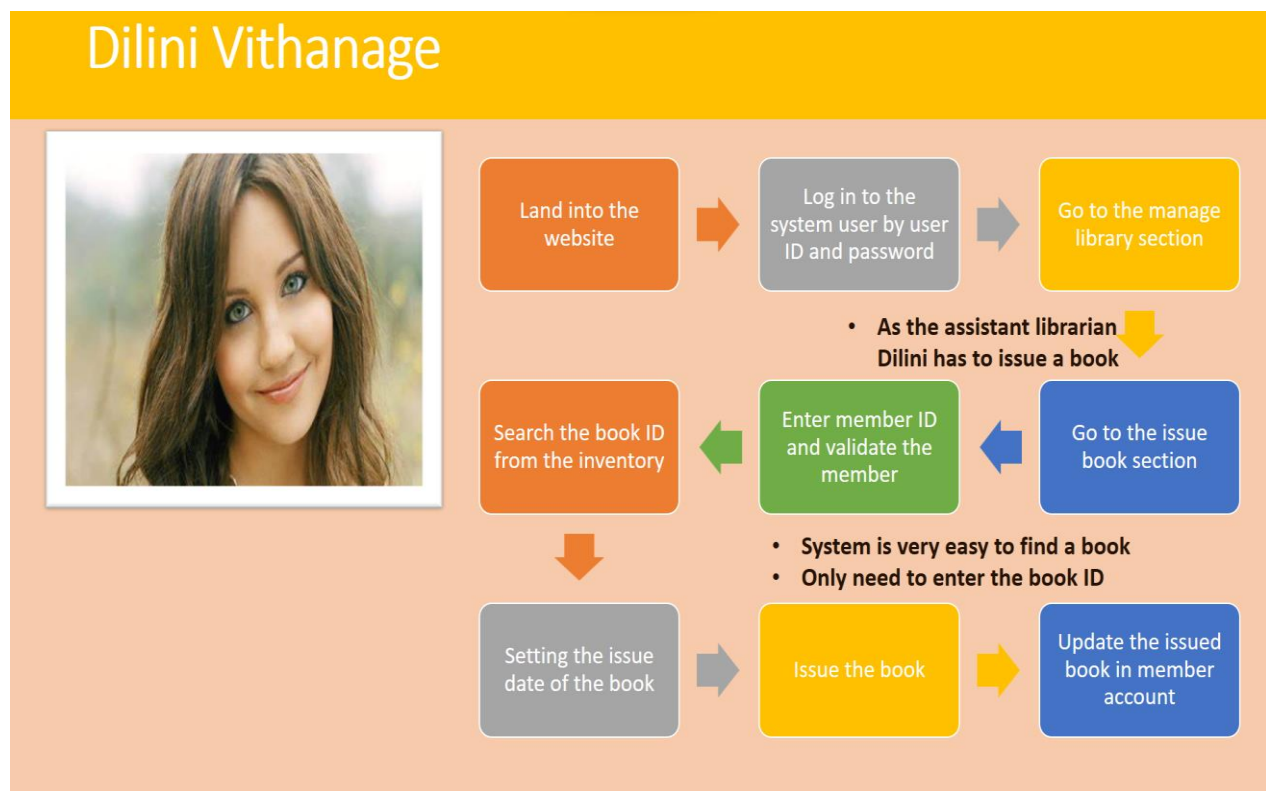
3.4. User Journey 4 – Issuing a book – persona 4

Nuwani Arundathi

Land on the website

Login as a Librarian

Have to add new members

Go to the manage members

Select add new members

Fill member details

Submit

"Submitting is very easy"

Get the membership fee

Issue the member ID

- User management is easy
- Time saving is better
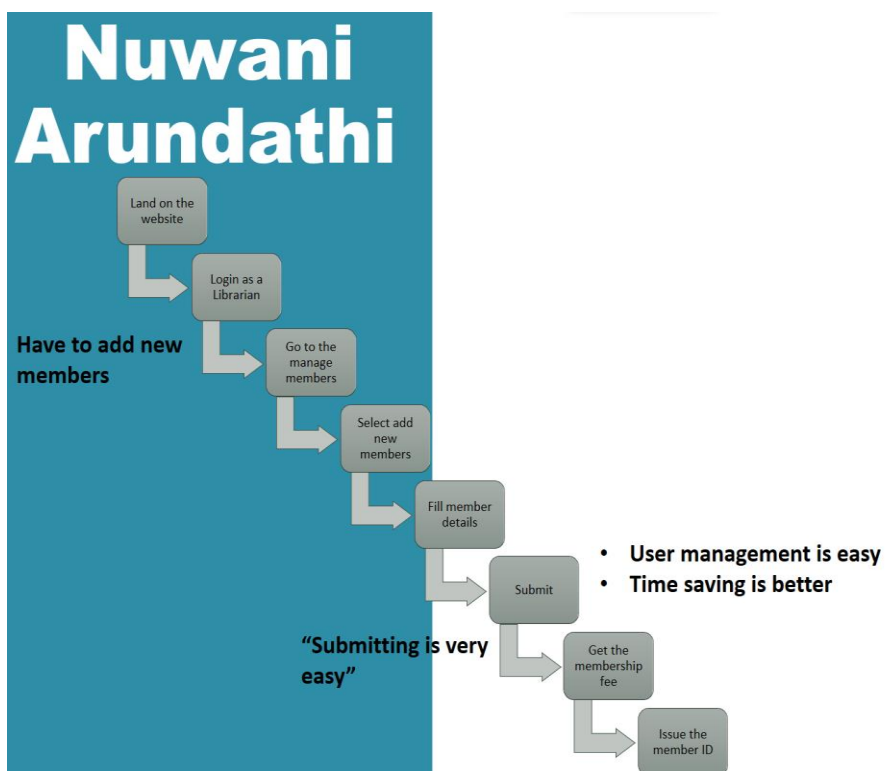
3.5. User Journey 5 – Adding a system user – persona 5
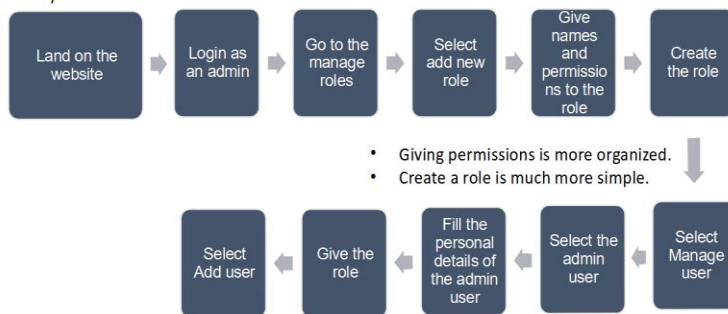
4. Wire Frames

4.1. Home Page
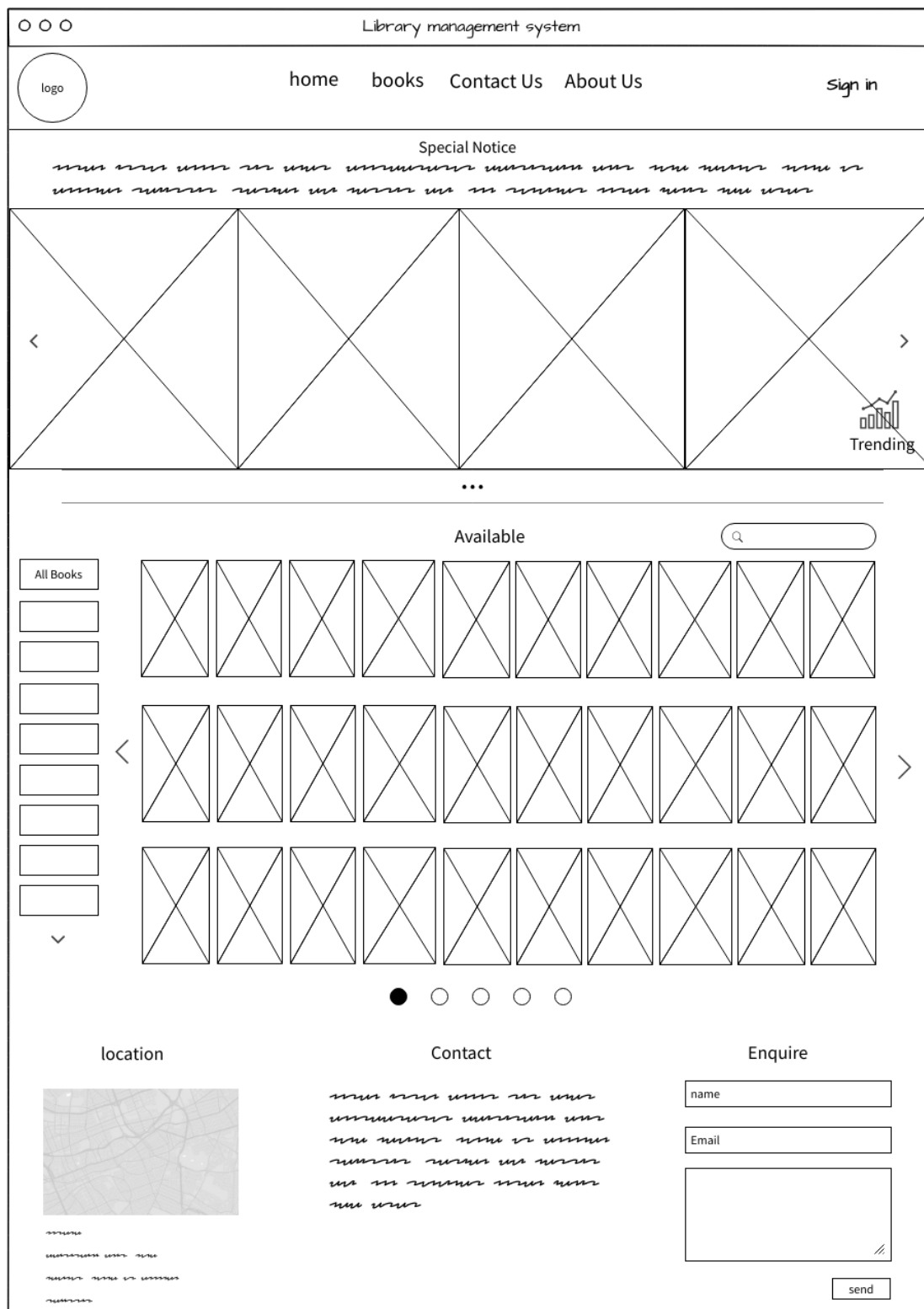
4.2. User Dashboard

4.3. Issue book

Library management system

librarian

- dashboard
- manage members
- manage inventory
- manage library   ∧
  - issue book
  - return book
  - issued book

sign out

memberID   ff2e2e2822   submit ✓

name: tharindu dilshan
address: no3.dj road,wijerama
phone no: 0110513416
membership type: premium
membership exp. date: 12/13/2022

BookID   book1   submit ✓

Name: book1
ISBN: 12029202
category: Science
author: tharindu dilshan

issue date:20/13/2022   return date   12 oct 2022

BookID   book2   submit ✓

Name: book2
ISBN: 12029203
category: Science
author: tharindu dilshan

issue date:20/13/2022   return date   12 oct 2022

⊕ add another book

issue

4.4. Manage invntory

admin

| dashboard |
| manage members |
| manage inventory |
| manage library ∨ |
| manage user |
| manage roles |
| manage notice |
| manage HomePage |
| enquires |

sort by ▼

add

	Book_ID	Name	image	ISBN	category	author	quantity	edit/remove
☐	b00001	BOOK1		123445684	science	tharindu dilshan	20	✏ 🗑
☐	b00002	BOOK2		123445686	science	tharindu dilshan	20	✏ 🗑
☐	b00003	BOOK3		1234456832	science	tharindu dilshan	20	✏ 🗑
☐	b00004	BOOK4		123445688	science	tharindu dilshan	20	✏ 🗑
☐	b00001	BOOK1		123445684	science	tharindu dilshan	20	✏ 🗑
☒	b00002	BOOK2		123445686	science	tharindu dilshan	20	✏ 🗑
☒	b00003	BOOK3		123456832	science	tharindu dilshan	20	✏ 🗑
☒	b00004	BOOK4		123445688	science	tharindu dilshan	20	✏ 🗑

🗑

sign out

4.5. Add new role

4.6. Add new system user

Site Title

admin
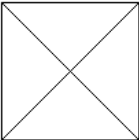
- dashboard
- manage members
- manage inventory
- manage library ⌄
  - manage user
  - manage roles
  - notice to users
- manage HomePage
- enquires

sign out

Add User

⊗

Full Name:

email:

Phone:

Address:

username:

Password:

Re-Enter Password:

Role: librarian ⌄

add user

Manage User

🔍   filter by ⌄   ⊕

☐	ID	image	name	email	role	
☐	141321		xxxxxx	xxxxx@xxx.xxx	librarian	✏ ✖
☐	141311		xxxxxx	xxxxx@xxx.xxx	assistant librarian	✏ ✖

4.7. Notice to user

4.8. Manage home page

4.9. enquiries

4.10. Fine

Library management system

librarian

dashboard

manage members

manage inventory

manage library ∧

issue book

return book

issued book

fine

sign out

pay fine

member ID   xxxxxxxxxxxx   submit

name: xxxxxxxx xxxxxxxx
address: no3.dj road,wijerama
phone no: 0110513416
membership type: premium
membership exp. date: 12/13/2022
fine: Rs.520.00

pay

FINE

member ID	book ID	days	fine	
xxxxxxxxx	xxxxxx	4 days	rs.xxx.xx	❯
xxxxxxxxx	xxxxxx	4 days	rs.xxx.xx	❯
xxxxxxxxx	xxxxxx	4 days	rs.xxx.xx	❯
xxxxxxxxx	xxxxxx	4 days	rs.xxx.xx	❯
xxxxxxxxx	xxxxxx	4 days	rs.xxx.xx	❯
xxxxxxxxx	xxxxxx	4 days	rs.xxx.xx	❯

total amount: xxxx.xx

5. Individual Contribution

	Student ID	Student Name	Individual Contribution

1	**IT21826368**	**Nanayakkara Y.D.T.D**	• Persona:
			   o 5th persona-Brian Fernando.
			• User Journey:
			   o 5th journey.
			• Wireframe:
			   o Manage inventory.
			   o Add new system user.
			   o Inqurie

2	**IT21820946**	Weragala R.T.L	• Persona:
			   o 1st persona – Kamal Fernando.
			• User Journey:
			   o 1st journey.
			• Wireframe:
			   o Issue book.
			   o Add new role.

3	**IT21822612**	Mendis H.R.M	• Persona:
			   o 2nd persona – Prasanna Chandimal.
			• User Journey:
			   o 2nd journey.
			• Wireframe:
			   o Homepage.
			   o User Dashboard.
			   o Fine

4	**IT21823220**	Vithanage H.P	• Persona:
			   o 4th persona – Nuwani Arundathi.
			• User Journey:
			   o 4th journey.
			• Wireframe:
			   o Notice to user.
			   o Manage home page.