Mini project report

A.A.A Amna

S92064693

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INTRODUCTION

The school Library of our area has manual system and it seems low effective. It requires to have a modified system. They need a system to records of books and users significantly instead of manual method. By gathering requirements from Librarian, Users and, I could recognize some requirements from observation, I could propose a system.

This document contains details of modified Library system which I proposed.

Details of Librarian:

Name: **M. Marlin.**

Contact No: **071 832 4086**

Designation: **Teacher & Librarian.**

Library Details:

Type: **School Library.**

Located: **AL-Gazzaly Central College**

Atulugama.

Bandarama.

Zonal: **Horana.**

District: **Kalutahara.**

Province: **Western.**

STAKEHOLDERS OF THE SYSTEM

Primary Stakeholders:

I.   Librarian:

      Responsible for the Library system.

II.   Users (Students, Staff):

      Use facilities offered by the Library including borrowing library materials, reading materials.

III.   Principal:

      Ensure library provides sufficient facilities or education service to the users.

IV.   Zonal office:

      Ensure the library perform well.

V.   Technical officer:

      Responsible for technical issues solving.

VI.   Assistant librarian:

      Responsible for maintaining library.

      Deal with queries.

Secondary Stakeholders:

i.   Local business people:

      Providing funds or kind-in contributions.

ii.   Student Union:

      Providing funds &help students**.**

REQUIREMENT ELICITATION

Requirement methodology I used: interview, focus on a group, observation

Librarian was interviewed So; I could identify problems in their system. First It goes questionnaire interview which consists pre-determined set of questions. And then It goes as open-ended interview.

There are some question I pre-determined and some asked with a flow of his reply.

- ❖ What are the things you think need to be changed in your system?
- ❖ Why do you need a change?
- ❖ Who are the user of your system?
- ❖ How many users have been registered so far?
- ❖ How your system runs until now?
- ❖ Tell about membership?
- ❖ Is membership card as paper model?
- ❖ If membership card loses what in the action?
- ❖ Can't any outside of school person get membership?
- ❖ How do you get books?
- ❖ How much books are in your library?
- ❖ What are the type of books?
- ❖ What about fine for late return?
- ❖ Whoever involve into improve the system?

    To get user side requirements I focused a little group who engage with library as a member.

- ❖ They show their interest with membership card as to be change it into barcode membership card.

Furthermore, I could observe all users' membership cards are kept in the library and, every time users need to search the card before borrowing books. Due to this most users go back without borrowing.

FUNTIONAL AND NONFUNCTIONAL REQUIREMENTS

Functional requirements:

i.   Only authentic person must have the access to the system. (Ex: Librarian, Technical officer)

ii. Only the librarian must be able to provide the information related to the library.

iii. Librarian must able to:
Provide the information regarding books.
Search for the required books from database.
Add/Update new book details to the database.
Information of returned books.
Enter data of issued book in database.
Get members details.

iv. Librarian must know the number of shelves in the library.

v.   Barcode card must reed and send the details to the database.

vi. All users must have a barcode membership card.

Non-functional requirements:

i.   Performance:

> The barcode reader, computer would be able to perform desired tasks in reasonable unit of time.

ii. Reliability:

> The system should its work with more accuracy like user registration for membership, return status and updating the database.

iii. Security:

> All details should have protected.

iv. Scalability:

> The proposed system would be scalable to support extended number of users.

v.   Maintainability:

> The proposed system would be easy to maintain and extend.

vi. Well performed computer.

IDENTIFY THE BUSSINESS ACTORS

    I.   **Librarian:**

        An individual who manage the library.

    II.   **Users (Students, Staff):**

        Registered members.

    III.   **Technical officer:**

        Permanent staff member who would be attending to handle technical procedures.

    IV.   **Library database:**

        A computer which use to prepare database.

    V.   **Assistant librarian:**

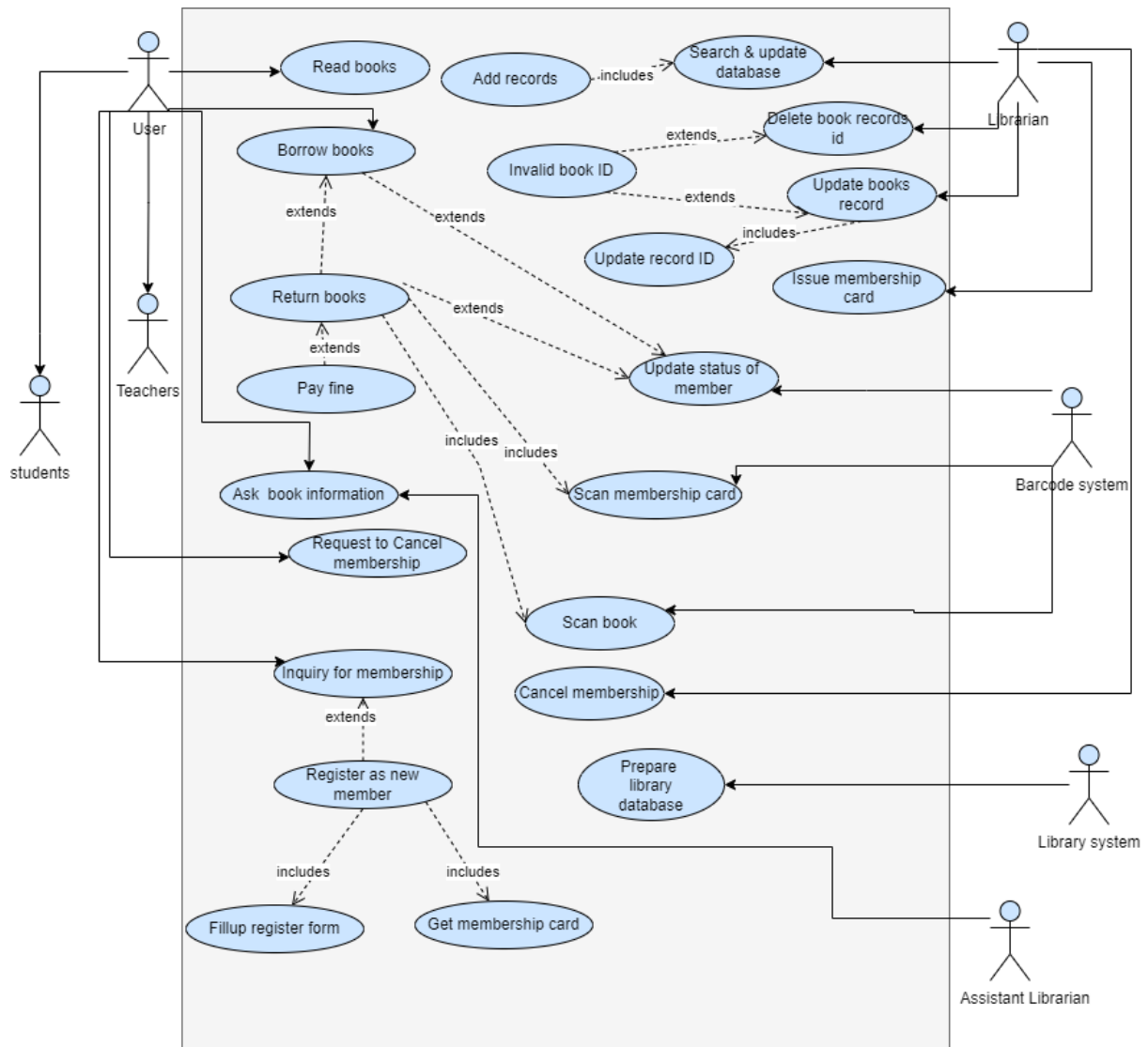   Permanent or temporary staff of the library to assist librarian.

    VI.   **Barcode System:**

        Scan membership card and books.

REQUIREMENTS ANALYSIS

Use Case diagram

Click here to see this diagram on drow.io

Borrow books		
Author(s):…………..		Date:
		Version:
Use-Case Name:	Scan membership card	Use-Case Type: Business Requirements
Use-Case ID:	ACC-LM003.01	
Priority:	High	
Source:	Requirement-ACC-L1.01	
Primary business Actor:	Barcode system(machine)	
Other Participating Actor:	User-who holds membership card Librarian-monitoring user and machine	
Other Interested Actor:	Student Union-Interested to give a quick fund for new users to get membership card. Local business people.-Interested to give fund for maintaining barcode system.	
Description:	This use case describes the event of a registered member in the school library scanning their membership card. When user borrow book or return book user status is validated. user's information is validated and pending fine status checked; User can successfully borrow book. Barcode system Updates user's status automatically .	
Precondition:	The users (students and teachers) must be a registered member.	
	Only school students and that school teachers can be a member.	
Trigger:	This use case initiated when registered users return book or borrow book.	

CONCLUSION OR DISCUSSION

Al-Gazzaly Central College School library has a low effective system. They face many problems while running their non-Systematical system. I have gathered requirements which library system need. By using interview, focus on a group and observation as such requirements elicitation method (mainly interview method) I could analysis functional and non-functional requirement of the library system.

Then, I propose a modified computerized library system. It clearly has been explained in Use Case diagram.

This new modified computerized system has been proposed after the deep learning of the requirements of the people who involves into the system. And Stakeholders of the library system has clearly identified.

According to proposed system librarian can maintain the books records in the database with the help of technical officer. As well as, another big change is barcode system which can easily identify(scan) details of members and books.

<div align="center">

<u>REFERENCE</u>

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Requirements Elicitation Techniques:

Software Engineering | Requirements Elicitation - GeeksforGeeks

What is Use Case diagram:

https://creately.com/blog/diagrams/use-case-diagram-tutorial/

How to draw Use Case diagram:

https://youtu.be/sQgoFjxSdxo

About Use Case Narrative:

https://youtu.be/i3dg99MWLZU

How would be a mini project sample:

(PDF) Mini Project Report On ONLINE SHOPPING SYSTEM | Sreeraj Menon - Academia.edu