SRS Chapter 3

Functional and Non-Functional Requirements

Functional Requirements:

1. <u>Sign in:</u>

As a User

I want to sign into a Library Management System

So that, I can create an account in the Library Management System.

Confirmation/Acceptance:

- ➢ Users need to give username and password.
- ➢ Users also need to confirm the password.
- ➢ If the password is wrong, a massage will appear with "Miss Match Password".

2. <u>Login:</u>

As a User

I want to log into a Library Management System

So that, I can Access the system to borrow/add/return books from the system.

Confirmation/Acceptance:

- ➢ Users need to input username and password
- ➢ If the password is wrong, a massage will appear with "Miss Match Password".

3. <u>Search Book:</u>

As a User

I want to search book

So that, I can find a book easily.

Confirmation/Acceptance:

- ➢ User can search in multiple ways.
- ➢ An option named "Search by" will appear with multiple option containing book id, subject, tittle, author, ISBN.
- ➢ User can choose any option and will get a input keyword option to search the way he/she choose.
- ➢ The book list will appear with the book information and also availability.

4. <u>Add Book:</u>

As a User

I want to add book

So that, I can store the library with more books that can be useful for others.

Confirmation/Acceptance:

- ➢ User can edit book information with existing book id.
- ➢ User can add book with the book information.

> ➢ The book information will contain book subject, tittle, author name, copyright of the book, edition number, total pages, ISBN code number, number of copies, the name of library.
> ➢ The book id will automatically generated by the system.

5. Borrow Book:

As a User

I want to borrow book

So that, I can take it with me to home other than study in the library.

Confirmation/Acceptance:

> ➢ User can borrow book with this function.
> ➢ User can borrow by book id and member id.
> ➢ User can see the current date and choose the return date from this function.

6. Return Book:

As a User

I want to return my borrowed book

So that, others can borrow it after returning.

Confirmation/Acceptance:

> ➢ User can return book with this function.
> ➢ User can return by book id and member id.

7. Book List (Available and borrowed):

As a User

I want to check the book list to check the availability

So that, I can know the books I can borrow and also those I can't.

Confirmation/Acceptance:

- ➤ Book list function will show all the books with information in a list.
- ➤ The book information will contain book subject, tittle, author name, copyright of the book, edition number, total pages, ISBN code number, number of copies, the name of library.

8. Print Book List:

As a User

I want to print book list

So that, I can see the books I got and can keep evidence/records in pdf copy.

Confirmation/Acceptance:

- ➤ Print Book list will give an option to print the list.
- ➤ Print book list can save the list in pdf file.
- ➤ This function also choose the page style , page limit etc.

9. Remove Book:

As a User

I want to remove book

So that, I can short the list of books by removing which book I don't need.

Confirmation/Acceptance:

➢ Remove book option will be very simple. User can remove book just by entering the book id.

10. Add Member:

As a User

I want to add member

So that, other people can access the library management system.

Confirmation/Acceptance:

➢ User can add member with the member information.
➢ The member information will contain member registration number, password, re-write password, name, email, major, valid date of a member.
➢ The member id will automatically generated by the system.

11. Remove Member:

As a User

I want to remove member

So that, I can remove people to shouldn't access the system.

Confirmation/Acceptance:

> ➤ Remove member option will be as simple as remove book. User can remove member just by entering the member id.

12. Search Member:

As a User

I want to search member

So that, I can find out any user easily in the system.

Confirmation/Acceptance:

> ➤ User can search in multiple ways.
> ➤ An option named "Search by" will appear with multiple option containing member id, name, email, Course major.
> ➤ User can choose any option and will get a input keyword option to search the way he/she choose.

13. Edit Member:

As a User

I want to edit member profile

So that, I can change name or password or subject.

Confirmation/Acceptance:

➢ User can edit member information with existing member id.
➢ User can update the information.
➢ The member information will contain member registration number, password, re-write password, name, email, major, valid date of a member.
➢ The member id will automatically generated by the system.

14. Print Member List:

As a User

I want to print member list.

So that, I can see the member list and can get evidence/record in hard copy.

Confirmation/Acceptance:

➢ Print member list will give an option to print the list.
➢ Print member list can save the list in pdf file.
➢ This function also chooses the page style, page limit etc.

15. Menu Bar:

As a User

I want a menu bar

So that, I can see all my functions of my system in one place together and can access easily from one place.

Confirmation/Acceptance:

- ➢ Manu Bar option will help to maintain the system easily.
- ➢ Manu bar has all the function in one place with extra functions such as calculator and notepad.
- ➢ Calculator and notepad added because of importance of these tools for a student. They can calculate while reading and also can keep notes when needed.

16. <u>About:</u>

As a User

I want an about option

So that, I can store information about this system and collaborators.

Confirmation/Acceptance:

- ➢ This function will show some information about the system and the collaborators of this system.

Non-Functional Requirements:

1. Availability Requirement:

The system is available100% for the user and is used24 hrs a day and 365days a year. The system shall be operational 24 hours a day and 7 days a week.

2. Efficiency Requirement:

 Mean Time to Repair (MTTR) –Even if the system fails, the system will be recovered back up within an hour or less.

3. Accuracy:

The system should accurately provide real time information taking into consideration various concurrency issues. The system shall provide 100% access reliability.

4. Performance Requirement:

The information is refreshed depending upon whether some update shave occurred or not in the application. The system shall respond to the member in not less than two seconds from the time of the request submittal. The system shall be allowed to take more time when doing large processing jobs. Responses to view information shall take no longer than 5seconds to appear on the screen.

5. Reliability Requirement:

The system has to be 100% reliable due to the importance of data and the damages that can be caused by incorrect or incomplete data. The system will run 7 days a week, 24 hours a day.