**2.2 Reasons of System Request:**

**2.2.1 Existing System**

Currently, there are still several mistakes and inefficiencies in us Library Management System (LMS). Our cataloging is giving the serial number for each book. When our library’s member needs to find some book, they need to go to check is there a book you want to find or they only can ask a librarian the book you want to find is put at which part in library. This is very wasting time for our member and our librarian. Not only that, librarian wan to statistic the book in library they need to count each book in library and rearrange the serial number for each book. This will affect our librarian’s efficiency. Not only this, if which book is losing librarian also did not know it.

**2.2.2 User Need**

One of the reasons for this system request is because of the system’s user needs. Our Library Management System when librarian’s member needs to borrow book or return the book by show them library card and give the book to the librarian to record the borrow record. The librarian will stamp the date at the back of the book to remind the person to return the book in time. If the person returns the book late, a librarian will record the date of return and then calculate the fine on the person. and this process is very not secure. For example, if user lost the book it can throw the old library card after that register a new library card, they can escape the punishment easily. Not that only, if the time period of user is already over-time, they can change the due date personally.

**2.2.3 External Force**

As the library needs to keep up with the new advances in technology and improve performance by adding bar code system to be integrated into the Library Management System. We can add the bar code into each book and each library’s member card. This is easier for librarian when they need to statics the book in the library and generate a repotted can scan the bar code on the book. Then it will display the total number of this type book, and display the info about this type book such as who borrowed this book and return it from on which date. Not that only, if our library’s member need to borrow the book he need to scan his library card after that scan the book he want to borrow that is friendly for user to use this system .Beside that it can know which are user not return yet or which book are return late by scan the member card this system can avoid user change the due date personally and avoid them cheat. For a conclusion, bar code system is very save user time and friendly user this can improve our productivity and performance in our library.

**2.3 Types of Improvement Requested**

**2.3.1 Improved Performance**

* The current cataloging system takes too long for librarian to manually arrange all the catalogue by hand. With the new cataloging system, it can be done automatically by computer for user to search for books.
* The current borrowing and returning system take too long and hassle for librarian to manually writes down the books’ codes and borrow date. With the new borrowing and returning system, it just needs to scan the borrowers’ ID barcode and books’ bar code and it will automatically mark the book as borrowed.
* The current report generating system takes too long for library staff to gather information such as numbers of visitors, use of online services, workshop and presentations held, books in the library, etc. in the report. With the new report generating system, all that information can be done automatically by computer.
* The current account management system takes too long for customer to create account online because of poor quality designs and codes on the website. With the new account management system, the account creation is much faster than before because of the new and effective designs and codes on the website.

**2.3.2 Better Service**

* The current cataloging system is often confusing to the newcomers as their individual records is arranged in different levels of details. With the new cataloging system, users can search the details of the books online and it will show the book’s location details to the users.
* The current borrowing and returning system are ineffective because the library card is easily lost. With the new borrowing and returning system, the borrow details will be recorded into computer by just scanning the user’s ID and book’s barcode
* The current account management system is not managed and updated frequently. With the new account management system, the user will always receive new update more often than before and it has better design as well.

**2.3.3 Quality Information**

* The current cataloging system is inadequate and inaccurate. With the new cataloging system, a reader can know whether the book is on order, under processing, on the shelf, on loan, send for binding, or lost, etc.
* The current borrowing and returning system are sometime not effective as the users will sometimes lose their library card. With the new borrowing and returning system, users can check the borrow details online using a computer or mobile phones.
* The current report generating system are inaccurate as the library staff sometimes wrongly recorded the statistics of the library. With the new report generating system, the computer rarely makes mistakes of making these statistics.