**Current Situation and Disadvantages**

There are some types of library management as below:

- Manual traditional library management:  
+ All activities that relate to borrowing and returning books are manual.  
+ Users select books, then come to librarian position to fill a form. To borrow a book, users have to fill information of that book such as: ID, title, writer, etc.  
+ Librarians have to check that information. Then he/she decides which books users can borrow.

- Library management using barcode:

+ Each book has a barcode which is used to identify a book. All barcodes are different with each other.  
+ When users want to borrow a book, librarians will use a scanner to read the barcode. Book information is showed on computer screen.  
However, current library management methods have some disadvantages:

- In manual traditional method:  
+ Users have to do many steps to borrow books. They have to fill all required information of books.  
+ The time for each user to complete the borrowing process is so long. It wastes both of users and librarians a lot of time.

- In method using barcode:

+ The barcode needs to be seen clearly by scanner. If the barcode is not clear or any else problems with reading process, book information will not be read or will be wrong.