**URS XX The librarian can add a new book into the system using book id, book name, book category, price and author.**

* The system shall display the user interface for adding the book consisting of 3 text fields for book name, price and author. And 1 data list for book category
* The system shall display a button labeled as “Add book”.
* The system shall validate the input when the librarian clicks “Add book” button by the following criteria.
  + book name => string of length 50.
  + category => data list (list of category that was created) or null.
  + price => decimal number with 2 decimal digits.
  + author => string of length 50.
* The system shall auto generate the book id and book status by the following criteria.
  + book id => count form 1 (integer number).
  + book status => available. \*Data list [borrowed, available, disappeared, corrupted, removed]
* The system shall add the information of the book including book id, book name, book category, price and author into the database if the input passes the validation.
* The system shall display the success message “The book is stored in the database” if the input is insert into the database.
* The system shall display the fail message next to the book name text field “The format of book name is not valid” if the book name is in the wrong format.
* The system shall display the fail message next to the price text field “The format of price is not valid” if the price is in the wrong format.
* The system shall display the fail message next to the author text field “The format of author is not valid” if the author is in the wrong format.
* The system shall display the fail message “Fail to connect the database” if the database cannot be connected.

**URS XX The librarian can search for a book from the database using keyword.**

* The system shall display the user interface for search the book consisting of 1 text fields for keyword.
* The system shall display a button labeled as “Search book.”
* The system shall validate the input when the librarian clicks “Search book” button by the length of the keyword. It must not exceed 50 characters.
* The system provide options to search, which is book id, book name, book category, price and author.
* The system shall retrieve the list of book using keyword and option in the book id, book name and author of the book into the database, if the librarian clicks the “Search book” button.
* The system shall display the list of book when there is at least one book that matches with the keyword.
* The system shall display the message “There is no book matched with the keyword” if there is no book that matched with the keyword.
* The system shall display the message “There is no book in the database” if there is no book in the database.
* The system shall display the fail message “Fail to connect the database” if the database cannot be connected.

**URS XX The library can view details of a book.**

* The system shall provide a button labeled as “View details” for the librarian to view the details of a book.
* The system shall be able to get the details of a book from the database.
* The system shall provide an interface, which displays book id, book name, category, price, author and book status.

**URS XX The library can update details of a book, which are book name, category, price, author and book status.**

* The system displays the user interface for updating the book consisting 3 text fields, which are book name, price, and author. And consisting 2 data lists, which is category and book status.
* The system shall display a button labeled as “Update book”.
* The system shall validate the input when the librarian clicks “Update book” button by the following criteria.
  + book name => string of length 50.
  + category => data list (list of categories that was created) or null.
  + price => decimal number with 2 decimal digits.
  + author => string of length 50.
  + book status => Data list [borrowed, available, disappeared, corrupted, removed].
* The system shall display a confirmation box with message “Are you confirm to update this book” and “Yes” button and “No” button.
* The system shall update the information of the book including book name, price, author and book status of the book into the database if the librarian clicks the “Yes” button.
* The system shall display the success message “The input is stored in the database” if the input is updated the database.
* The system shall display the fail message next to the book name text field “The format of book name is not valid” if the book name is in the wrong format.
* The system shall display the fail message next to the price text field “The format of price is not valid” if the price is in the wrong format.
* The system shall display the fail message next to the author text field “The format of author is not valid” if the author is in the wrong format.
* The system shall display the fail message “Fail to connect the database” if the database cannot be connected.

**URS XX The librarian can remove a book from the shop using book id.**

* The system shall display a button labeled as “Delete book” next to the book name.
* The system shall display a confirmation box with message “Are you confirm to deleted this book” and “Yes” button and “No” button when the librarian clicks the “Delete book” button.
* The system shall update the book status to “removed” when the librarian clicks “Yes.”

**URS XX The librarian can create a new category into the system using category id, category name and category status.**

* The system shall display the user interface for adding the category consisting of 1 text fields for category name.
* The system shall display a button labeled as “Create category.”
* The system shall validate the input when the librarian clicks “Create category” button by the following criteria.
  + category name => string of length 20.
* The system shall auto generate the category id by the following criteria.
  + category id => count from 1 (integer number).
  + category status => active. \*Data list [active, not active].
* The system shall add the information of the category including category id, category name and category status into the database if the input passes the validation.
* The system shall display the success message “The category is stored in the database” if the input is inserted into the database.
* The system shall display the fail message next to the book name text field “The format of category name is not valid” if the book name is in the wrong format.
* The system shall display the fail message “Fail to connect the database” if the database cannot be connected.

**URS XX The librarian can view categories in the system.**

* The system shall provide a button labeled as “View categories” for the librarian to view the categories in the system.
* The system shall be able to get the list of categories from the database.
* The system shall provide an interface, which displays category id, category name and category status.

**URS XX The librarian can update categories in the system, which are category name.**

* The system displays the user interface for updating the book consisting 1 text fields, which are category name. And 1 data list, which is category status.
* The system shall display a button labeled as “Update category”.
* The system shall validate the input when the librarian clicks “Create category” button by the following criteria.
  + category name => string of length 20.
  + category status => active or not active.
* The system shall display a confirmation box with message “Are you confirm to update this category” and “Yes” button and “No” button.
* The system shall update the information of the book including category name into the database if the librarian clicks the “Yes” button.
* The system shall display the success message “The input is stored in the database” if the input is updated the database.
* The system shall display the fail message next to the category name text field “The format of category name is not valid” if the category name is in the wrong format.
* The system shall display the fail message “Fail to connect the database” if the database cannot be connected.

**URS XX The librarian can remove category using category id.**

* The system shall display a button labeled as “Delete category” next to the category name.
* The system shall display a confirmation box with message “Are you confirm to deleted this category” and “Yes” button and “No” button when the librarian clicks the “Delete category” button.
* The system shall update the category status to “not active” when the librarian clicks “Yes.”

**URS XX The librarian can add a new member into the system using member id, member name, citizen id, telephone number and member status.**

* The system shall display the user interface for adding the book consisting of 3 text fields for member name, citizen id and telephone number.
* The system shall display a button labeled as “Add member”.
* The system shall validate the input when the librarian clicks “Add member” button by the following criteria.
  + member name => string of length 50.
  + citizen id => numeric input only.
  + telephone number => numeric input only.
* The system shall auto generate the member id and member status by the following criteria.
  + member id => count form 1 (integer number).
  + mem status => active. \*Data list [active, not active].
* The system shall add the information of the member including member id, member name, citizen id, telephone number and member status into the database if the input passes the validation.
* The system shall display the success message “The member is stored in the database” if the input is insert into the database.
* The system shall display the fail message next to the member name text field “The format of member name is not valid” if the member name is in the wrong format.
* The system shall display the fail message next to the citizen id text field “The format of citizen id is not valid” if the citizen id is in the wrong format.
* The system shall display the fail message next to the telephone number text field “The format of telephone number is not valid” if the telephone number is in the wrong format.
* The system shall display the fail message “Fail to connect the database” if the database cannot be connected.

**URS XX The librarian can search for a member from the database using keyword.**

* The system shall display the user interface for search the member consisting of 1 text fields for keyword.
* The system shall display a button labeled as “Search member.”
* The system shall validate the input when the librarian clicks “Search member” button by the length of the keyword. It must not exceed 50 characters.
* The system provide options to search, which is member id, member name, citizen id, telephone number and member status.
* The system shall retrieve the list of member using keyword and option in the member id, member name citizen id and telephone number of the member into the database, if the librarian clicks the “Search member” button.
* The system shall display the list of member when there is at least one member that matches with the keyword.
* The system shall display the message “There is no member matched with the keyword” if there is no member that matched with the keyword.
* The system shall display the message “There is no member in the database” if there is no member in the database.
* The system shall display the fail message “Fail to connect the database” if the database cannot be connected.

**URS XX The librarian can view member’s information in the system.**

* The system shall provide a button labeled as “View member’s information” for the librarian to view the member’s information in the system.
* The system shall be able to get the list of member from the database.
* The system shall provide an interface, which displays member id, member name, citizen id, telephone number and member status.
* The system shall display the fail message “Fail to connect the database” if the database cannot be connected.

**URS XX The librarian can remove member using member id.**

* The system shall display a button labeled as “Remove member” next to the member name.
* The system shall display a confirmation box with message “Are you confirm to deleted this member” and “Yes” button and “No” button when the librarian clicks the “Remove member” button.
* The system shall update the member status to “not active” when the librarian clicks “Yes.”

**URS XX The librarian can issue a book using member id and book id.**

* The system shall display the user interface for issue the book consisting of 1 text fields for member id.
* The system shall provide a button labeled as “Confirm member” for the librarian to validate the member id.
* The system shall display the message “Please input the member id” when the librarian clicks “Confirm member” and member id text fields is not inputted.
* The system shall display the fail message “Not have this member id in the database” when the librarian clicks “Confirm member” and not have the member id in the database.
* The system shall display the fail message “The format of member id is not valid” when the librarian clicks “Confirm member” and the format of member id is not valid.
* The system shall display the user interface for issue the book consisting of 1 text fields for book id. if the input passes the validation.
* The system shall provide a button labeled as “Confirm issue” for the librarian to confirm issue and do not need to want to issue more book.
* The system shall provide a button labeled as “Issue more” for the librarian to issue more book.
* The system shall display the fail message “Not have this book id in the database” when the librarian clicks “Confirm issue” or “Issue more” button and not have the book id in the database.
* The system shall display the fail message “The format of book id is not valid” when the librarian clicks “Confirm issue” or “Issue more” button and the format of book id is not valid.
* The system shall display the user interface for issue the book consisting of 1 text fields for book id. if the input passes the validation and the librarian clicked the “Issue more” button.
* The system shall create the records in the database using record number, member id, book id and issue date, which auto generated by the system.
* The system shall update the book status to “borrowed” into the database.
* The system shall display success message “Issue complete” when the records is stored in the database.
* The system shall display the fail message “Fail to connect the database” if the database cannot be connected.

**URS XX The librarian can return a book using book id.**

* The system shall display the user interface for issue the book consisting of 1 text fields for book id.
* The system shall provide a button labeled as “Confirm return” for the librarian to confirm return and do not need to want to return more book.
* The system shall provide a button labeled as “Return more” for the librarian to return more book.
* The system shall display the fail message “Not have this book id in the database” when the librarian clicks “Confirm return” or “Return more” button and not have the book id in the database.
* The system shall display the fail message “The format of book id is not valid” when the librarian clicks “Confirm return” or “Return more” button and the format of book id is not valid.
* The system shall display the user interface for issue the book consisting of 1 text fields for book id. if the input passes the validation and the librarian clicked the “Issue more” button.
* The system shall search the book id in the records using record book id for update the return date, rental price and fine in the records.
* The system shall update the book status to “available” into the database.
* The system shall display success message “Return complete” when the records is stored in the database.
* The system shall display the fail message “Fail to connect the database” if the database cannot be connected.

**URS XX The librarian can create the records of a book in the database.**

* The system shall display the user interface for adding the book consisting of 6 text fields for member id, book id, issue date, return date, rental price and fine.
* The system shall display a button labeled as “Create record”.
* The system shall add the record of the book including member id, book id, issue date, return date, price and fine into the database if the input passes the validation.
* The system shall display the success message “The record is stored in the database” if the input is insert into the database.
* The system shall display the fail message next to the member id text field “The format of member id is not valid” if the member id is in the wrong format.
* The system shall display the fail message next to the book id text field “The format of book id is not valid” if the book id is in the wrong format.
* The system shall display the fail message next to the issue date text field “The format of issue date is not valid” if the issue date is in the wrong format.
* The system shall display the fail message next to the return date text field “The format of return date is not valid” if the return date is in the wrong format.
* The system shall display the fail message next to the rental price text field “The format of rental price is not valid” if the rental price is in the wrong format.
* The system shall display the fail message next to the fine text field “The format of fine is not valid” if the fine is in the wrong format.
* The system shall display the fail message “Fail to connect the database” if the database cannot be connected.

**URS XX The librarian can update the records of a book in the database.**

* The system displays the user interface for updating the book consisting 6 text fields, which are member id, book id, issue date, return date, rental price and fine.
* The system shall display a button labeled as “Update record”.
* The system shall validate the input when the librarian clicks “Update record”
* The system shall display a confirmation box with message “Are you confirm to update this record” and “Yes” button and “No” button
* The system shall update the information of the record including member id, book id, issue date, return date, rental price and fine into the database, if the librarian clicks the “Yes” button.
* The system shall display the success message “The input is stored in the database” if the input is updated the database.
* The system shall display the fail message next to the member id text field “The format of member id is not valid” if the member id is in the wrong format.
* The system shall display the fail message next to the book id text field “The format of book id is not valid” if the book id is in the wrong format.
* The system shall display the fail message next to the issue date text field “The format of issue date is not valid” if the issue date is in the wrong format.
* The system shall display the fail message next to the return date text field “The format of return date is not valid” if the return date is in the wrong format.
* The system shall display the fail message next to the rental price text field “The format of rental price is not valid” if the rental price is in the wrong format.
* The system shall display the fail message next to the fine text field “The format of fine is not valid” if the fine is in the wrong format.
* The system shall display the fail message “Fail to connect the database” if the database cannot be connected.

**URS XX The librarian can search records of a book from the database using keyword.**

* The system shall display the user interface for search the book consisting of 1 text fields for keyword.
* The system shall display a button labeled as “Search records.”
* The system shall validate the input when the librarian clicks “Search records” button by the length of the keyword. It must not exceed 50 characters.
* The system provide options to search, which is record number, book id, issue date, return date, rental price and fine.
* The system shall retrieve the list of record using keyword and option in the record number, book id, issue date, return date, rental price and fine into the database, if the librarian clicks the “Search records” button.
* The system shall display the list of book when there is at least one record that matches with the keyword.
* The system shall display the message “There is no record matched with the keyword” if there is no record that matched with the keyword.
* The system shall display the message “There is no record in the database” if there is no record in the database.
* The system shall display the fail message “Fail to connect the database” if the database cannot be connected.

**URS XX The library can view records of the book.**

* The system shall provide a button labeled as “View record” for the librarian to view the record of a book.
* The system shall be able to get the record of a book from the database.
* The system shall provide an interface, which displays record number, book id, issue date, return date, rental price and fine.

**URS XX The librarian can remove a book from the library using book id.**

* The system shall display a button labeled as “Delete record” next to the record row.
* The system shall display a confirmation box with message “Are you confirm to deleted this record” and “Yes” button and “No” button when the librarian clicks the “Delete record” button.
* The system shall delete the record from the database when the librarian clicks “Yes.”