We have two actors on the system (customer, librarian)

1-Scenario (a)

-Customer: screen (1)

* Login: go to screen (3)
* Register: go to screen (4)

1. Case register: screen (2)
   * 1. Ask him to enter his (name, email, password (or whatever))
     2. Direct him to screen (1) again for login
2. Case login: screen (3)
   * 1. Ask him to enter his name and password
     2. Check his data on the customer's array for login success or fail
     3. If its valid procced to screen (4)
     4. if not ask him to enter correct username and password or register if he didn’t register yet (reenter/register)
        1. reenter restart screen (3)
        2. register redirect to screen (2)
3. Customer Menu: screen (4)
   1. Search book: screen (5)
      1. Ask him to enter the book name
      2. Screen (6) Return him (book doesn’t exist or send him to screen (7))
      3. Screen (7): show the customer selected book data and give him two options to add to search list and return to menu or discard that search in both redirect him back to menu screen (4)
   2. Buy book screen (9)
      1. Show him the book list he searched for and the payment method he chose and ask him to confirm payment (y/n)
         1. Case (y) decrease book stock or copies -1 and remove that book from search list (in case he went back to menu and picked borrow so he can’t borrow something he already bought) and redirect him back to screen (4)
         2. Case (N) just redirect him back to screen (4)
   3. Borrow book screen (10)
      1. Show him the book list he searched for and ask him to decide the due date that he wants to return the book in then ask him to confirm the process (y/n)
         1. Case (y) decrease book stock or copies -1 and remove that book from search list (in case he went back to menu and picked buy so he can’t buy something he is currently borrowing) and redirect him back to screen (4)
         2. Case (N) just redirect him back to screen (4)
   4. Return book screen (11)
      1. show him the payment method he chose and give him the pill for borrowing the book (increase the bill with a fine if he returned the book after the decided date) confirm payment is done and increase that book copies+1 and redirect him to screen (4)
   5. Choose payment method screen (12)
      1. Show him list of payment methods he can use and let him pick one then redirect him to screen (4)
   6. Check mail screen (13)
      1. Show him all the notifications he got from not returning the book within the due date

2-Scenario (b)

-Librarian: screen (1)

1. Login or register
   1. Case register: screen (2)
      1. Ask him for his name, password
      2. Redirect him back to screen (1)
   2. Case login: screen (3)
      1. Ask him to enter his name and password
      2. Check the librarian array for his name and password
      3. If its valid direct him to screen (4)
      4. if not ask him to enter correct username and password or register if he didn’t register yet (reenter/register)
         1. reenter: restart screen (3)
         2. register: redirect to screen (2)
2. Librarian Menu: screen (4)
   1. Add book: screen (5)
      1. Ask him to enter book data like name, author, …
      2. Ask him to submit case submit add book to the book list or discard and then redirect him to screen (4)
   2. Delete book: screen (6)
      1. Ask him for book id/ name and then remove that book from the book list and redirect him to screen (4)
   3. Update book: screen (7)
      1. Ask him for book id and then let him update anything in that book object he chose and then redirect him to screen (4)
   4. Request borrowed book: screen (8)
      1. Ask him for customer id/name and the book id and send that customer mail to warn him about the book delay then show mail send and redirect him to screen (4)
   5. Add payment method: screen (9)
      1. Ask him for the payment method name and add it to the payment methods list and redirect him to screen (4)
   6. Generate reports: screen (10)
      1. Show him the list or reports he can generate
      2. Make screen for each report and then show him the required data and then you can redirect him to screen (4)
   7. Display book data: screen (11)
      1. Ask him for book id/name and then show him the book data in another screen and redirect him after to screen (4)
   8. Search book: screen (12)
      1. Ask him for book id/name and show him book data in another screen and redirect him to screen (4)
   9. Lend Book: screen (13)