Department of Computer Science

Term Project Proposal, Fall 2018-19

Course	OBJECT ORIENTED PROGRAMMING 2	Section		Group	

Group Members:

Student ID	Name	Section
16-32154-2	Sabbir Hossen	A
16-33045-3	Shakil Ahmed	A
16-32193-2	Mahfuzur Rahman	A
16-32158-2	Tohfa akib	B1

Project Title:
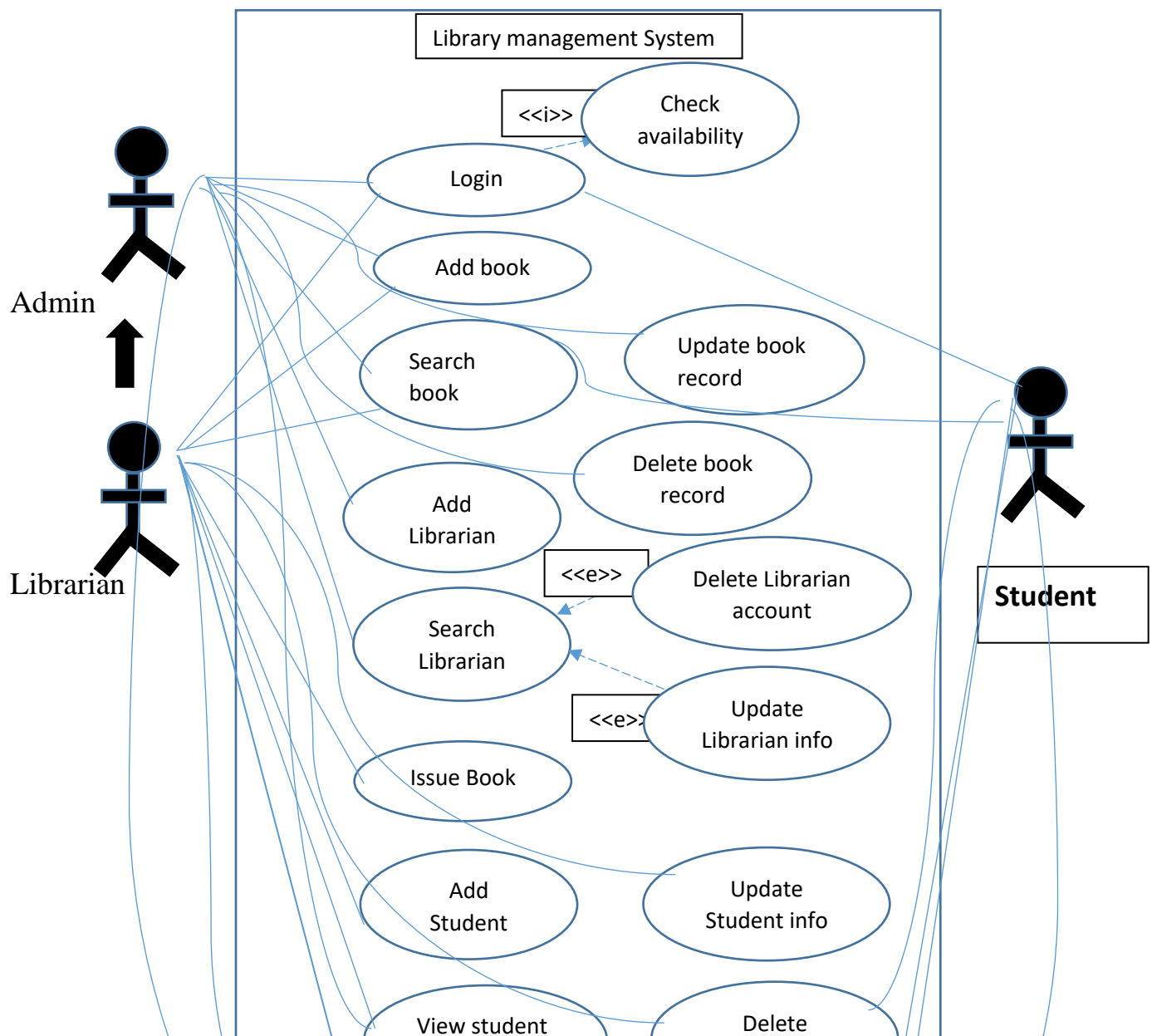
Library Management System

Project Description:

There are 3 types of users, such as Admin/Librarian/Students. They all can log in the System.

Admin can add librarian, search ,update and delete librarian. also can add books, update and delete books. Librarian can also add books, update and delete books. Librarian can add and see Students details.

Student can see own details, search books and can borrow books.

All the users can log out from the system.
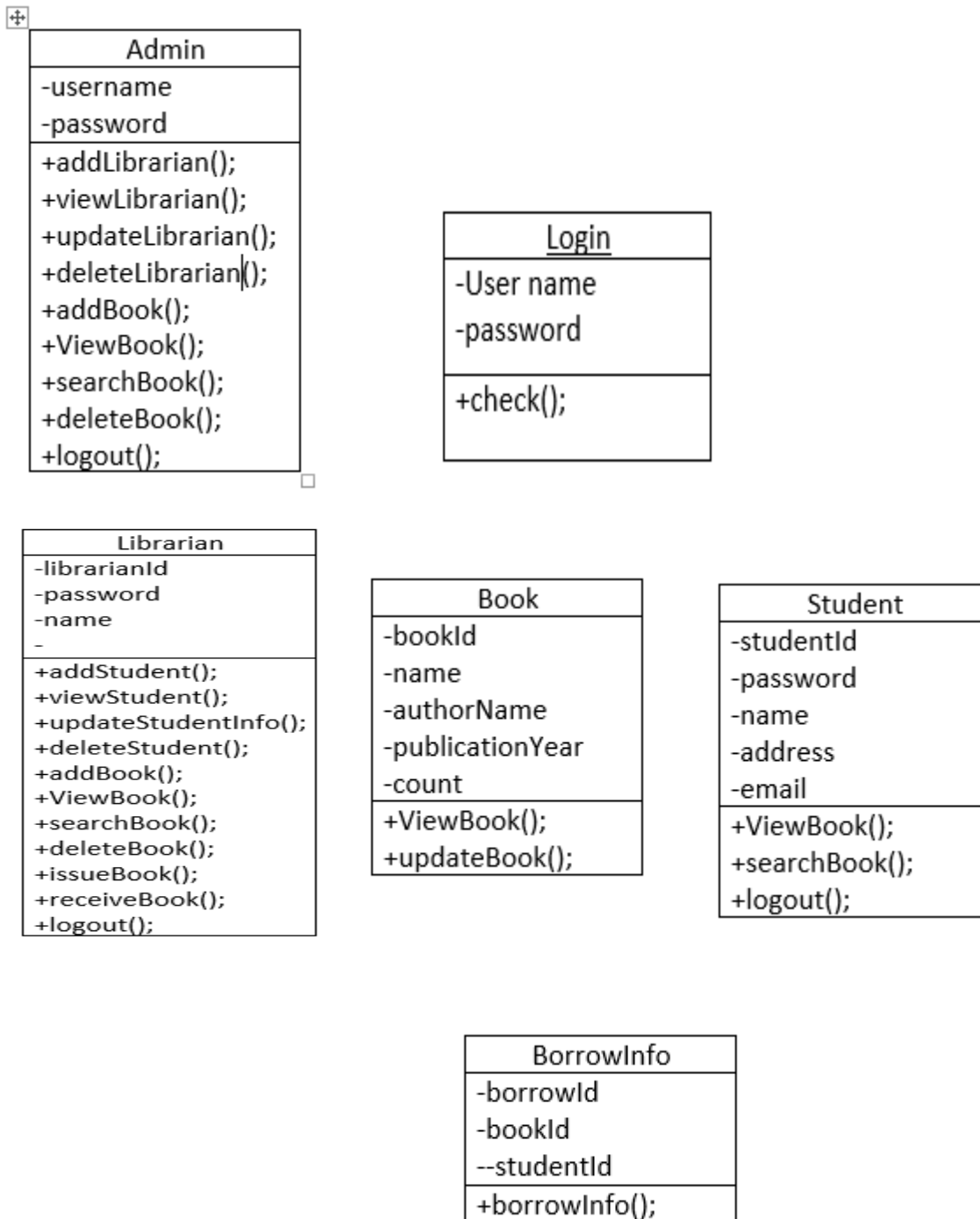
User Stories of Library management system

Use Case Name	Actor	User Story
Log In	Admin/Librarian/Students	Admin of the system, I want to sign-in to the system to access the features of the system.
Add Book	Admin	I can add book details.
Search Book	Admin/Librarian/Students	I can search book.
Update Book details	Admin/librarian	Also can update book details.
Delete Book	Admin/Librarian	Can also delete book details.
Add Librarian	Admin	I can add Librarian.
Librarian Details	Admin	I can see the details and update or delete the librarians.
Add Student	Librarian	I can Add Students to borrow the book from the library.

Students Details	Librarian/Admin	Can update and delete the students record. (Admin too)
Issue Book	Librarian	Can also Issue books for borrow.
Receive Book	Librarian	Can also receive the book.
Own details	Librarian/Students	Can see their details.
Password	Librarian/Students	Can change their password.
Logout	Librarian/Students/Admin	Can logout from the system.

Use Case Diagram of Simple Library Management System

Class Diagram of Library management system

Admin

-username
-password

+addLibrarian();
+viewLibrarian();
+updateLibrarian();
+deleteLibrarian();
+addBook();
+ViewBook();
+searchBook();
+deleteBook();
+logout();

Login

-User name
-password

+check();

Librarian

-librarianId
-password
-name
-

+addStudent();
+viewStudent();
+updateStudentInfo();
+deleteStudent();
+addBook();
+ViewBook();
+searchBook();
+deleteBook();
+issueBook();
+receiveBook();
+logout();

Book

-bookId
-name
-authorName
-publicationYear
-count

+ViewBook();
+updateBook();

Student

-studentId
-password
-name
-address
-email

+ViewBook();
+searchBook();
+logout();

BorrowInfo

-borrowId
-bookId
--studentId

+borrowInfo();

ER Diagram of Library management system

E-R Diagram of Library management
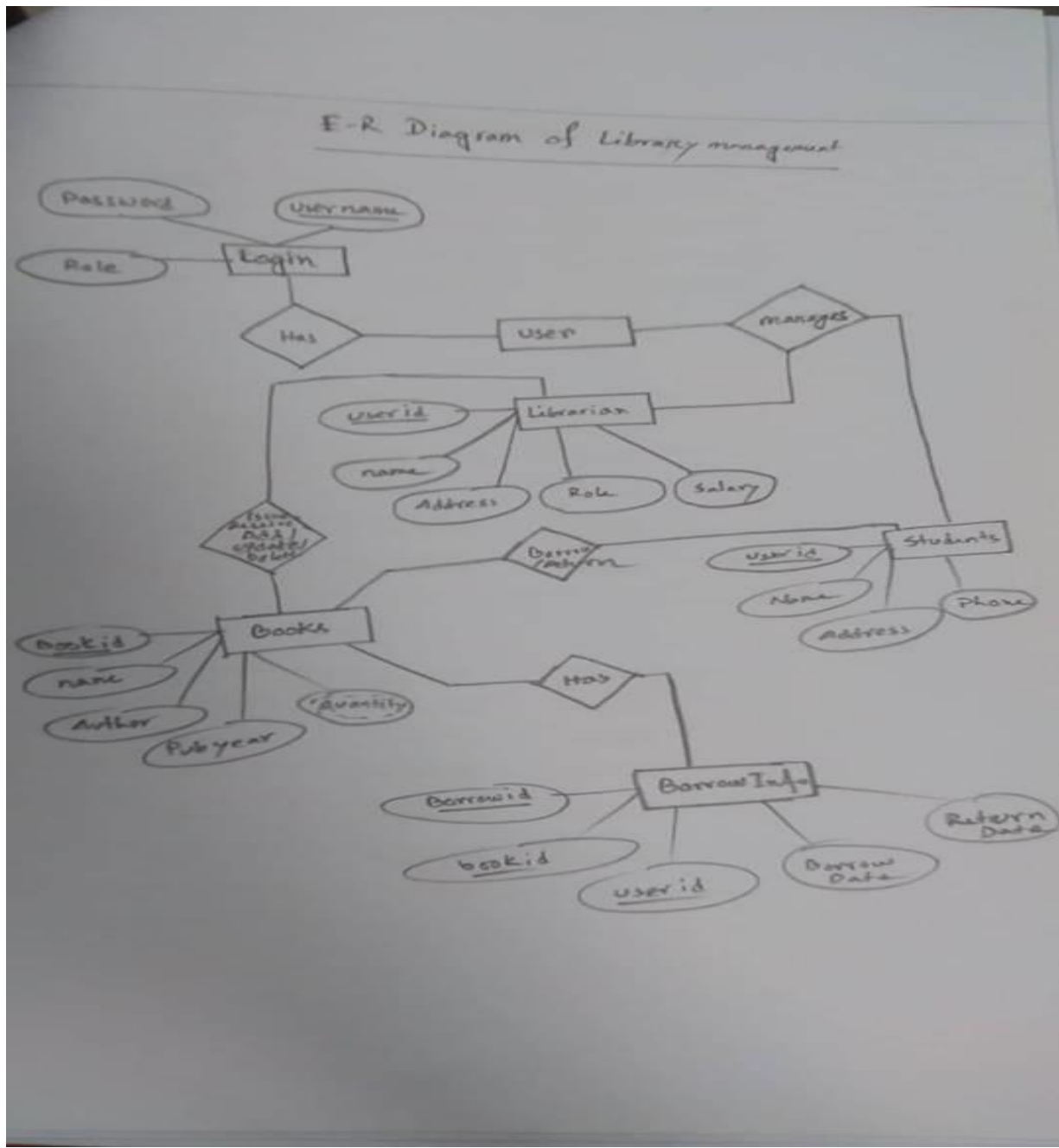
Data Table of Library management system

login	
☐ * (All Columns)	
☐ **userId**	
☐ password	
☐ role	

librarian	
☐ * (All Columns)	
☐ **userId**	
☐ librarianName	
☐ librarianAddress	
☐ librarianPhone	

student	
☐ * (All Columns)	
☐ **studentId**	
☐ studentName	
☐ studentAddress	
☐ studentPhone	

book	
☐ * (All Columns)	
☐ **bookId**	
☐ bookName	
☐ authorName	
☐ publicationYear	

borrowInfo	
☐ * (All Columns)	
☐ **borrowId**	
☐ bookId	
☐ studentId	
☐ borrowDate	