LIBRARY MANAGEMENT PROJECT PROPOSAL

Background:

For this course, I would like to build a database based on library management. Since libraries are a major source of information where people enter and borrow books, meet with authors or return books or even donate them. As per these days that a lot of resources of are going online such as kindle and other amazon bookstores or even for instance the library in Ottawa where people will borrow a book for a particular time and then other students, or people can form a list for when the next person in line can borrow the book. The reason I chose this topic, is because as student; books are an extremely expensive merchandise and how libraries offer certain copies (if in stock) to students on a rent to borrow basis which has immensely helped me in maintaining my costs.

Intended Use:

This project is only for admin use and MUST NOT be shared among students openly since this will result in manipulation of data and leakage of information for the clients or students. In this project, we can allow our admin or staff members to search up a book that matches any input for instance a input of "The" will corresponds with books that have "The" in the title. After that we allow our user to click on any title and in the corresponding table it will display the data of the book. Then we have a add Book and add publisher unfortunately I was not able to connect the books table with publisher for one issue was that it was lack of time. We can add new book and when we click the reports and come back to our tab we see it gets automatically updated. We can add new members into our database as well, and when we click on the reports tab it will update the status in the reports that is we generate a new report with updated data. We can even give a book to a student. HOWEVER, each student can only have one copy of the same book (so like 1 Book can go to N students and N Book can go to one students But the books are different ISBN not the same) and we can view their borrowed book status using the students tab and clicking on their data. We can see the data get updated automatically in the report window as well. Alongside the data of the books I have a maintains directory where we can view and see the quantity of the book in the library. When we add a new book we only default it to 1quantity and unfortunately, I was not able to implement an edit function for the table since lack of time.   When we double click the book we can lend it to the client that requested us for the book and if the book already exists with the user HE CANNOT borrow it. When the admin view the students data he cannot search by name for this instance since I had disabled the search and restricted it only for the main book searches (plus I am new to tkinter)
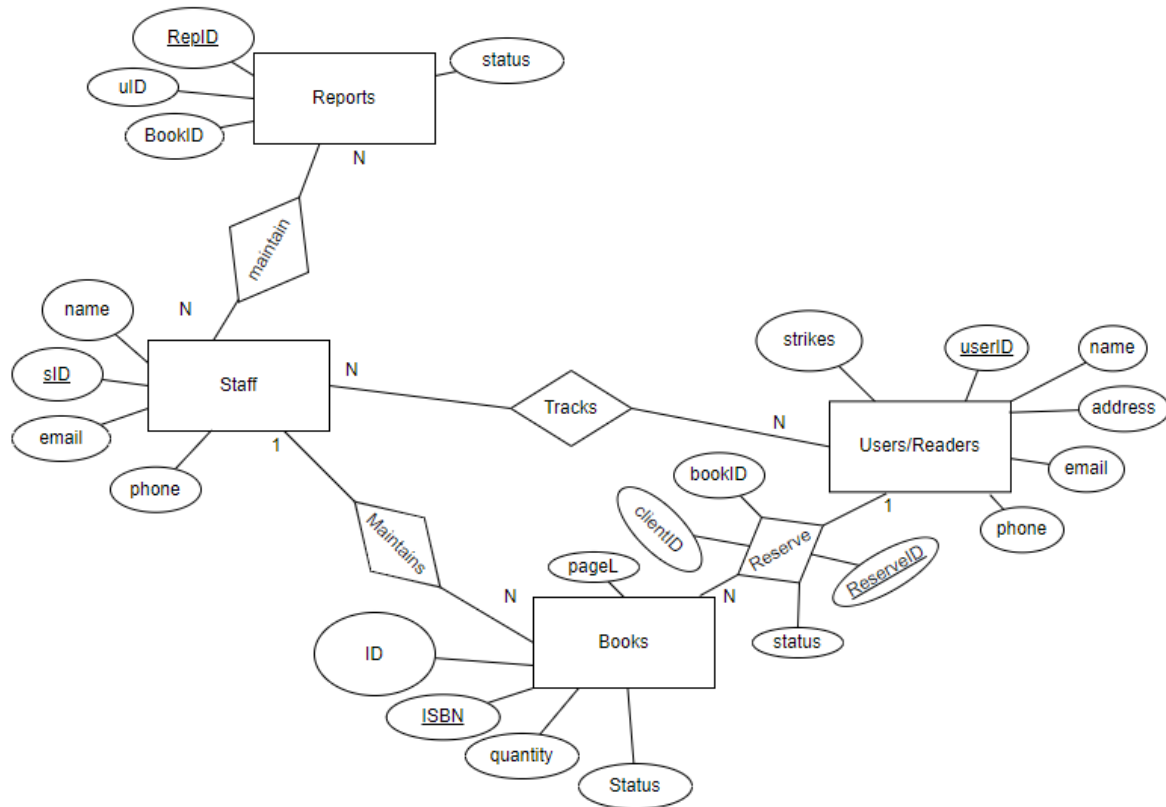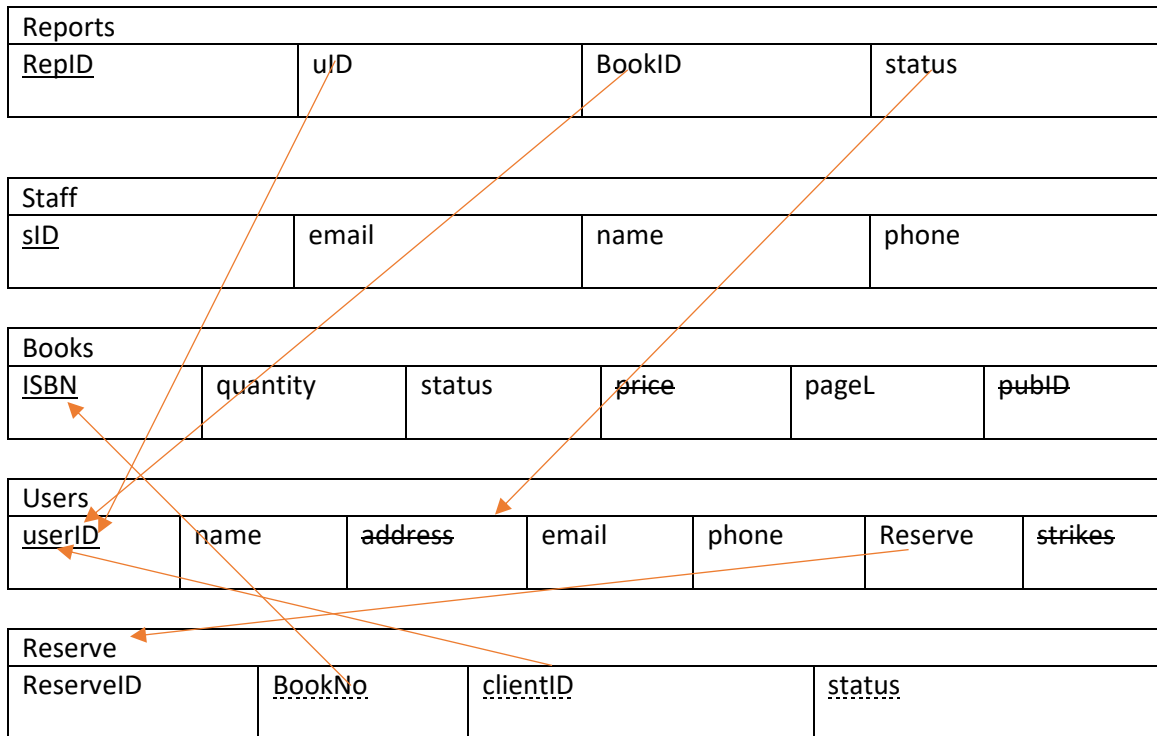
ER Diagram:

Table Schema:

Reports			
RepID	uID	BookID	status

Staff			
sID	email	name	phone

Books					
ISBN	quantity	status	~~price~~	pageL	~~pubID~~

Users						
userID	name	~~address~~	email	phone	Reserve	~~strikes~~

Reserve			
ReserveID	BookNo	clientID	status

Due Dilligence:

CPY1.1) Since there are many outside softwares of libraries that provide similar services as compared to the project proposal. Releasing this software to the public might result in some copyright infringements.

CPY1.2) since there are multiple writers and authors for a book (at times) Allowing only one user to edit details in a field such as that will only prove to be a bit problematic since others might also want to edit the details or might not even agree with these changes.

CPY1.3) Since some of these data online are all copyrighted. Will not be able to give out books without giving credit to the authors for each information

N:N relationships:

1. A staff can handle many reports, a report can be handled by many staff members
2. A staff can keep track of N user records, a user record/person can be kept track of by N staff

References FOR UI DESIGN:

1. I used a youtube playlist for my UI Design (Link: https://youtube.com/playlist?list=PLjiKFad_N7K1n4r2EpyC-6N4IePgTjBW2)