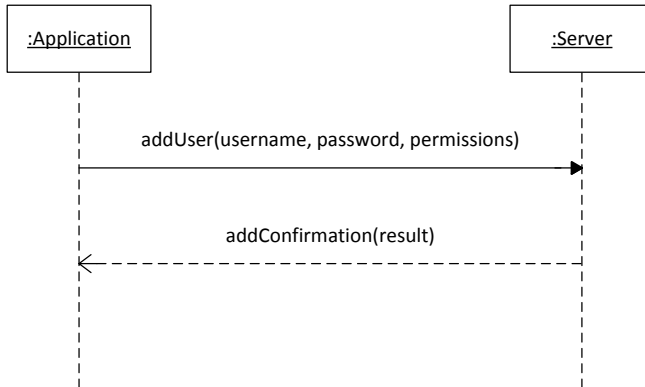
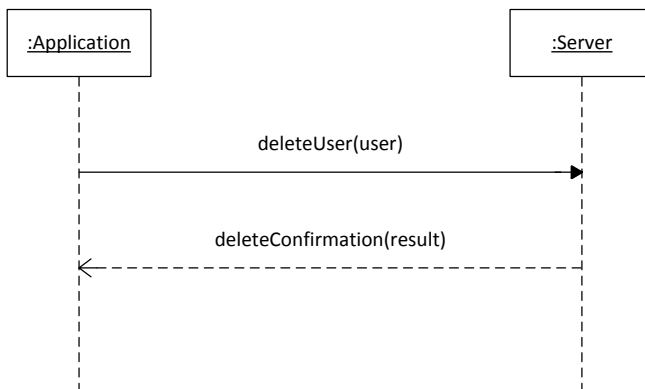


User Management Sequence Diagrams

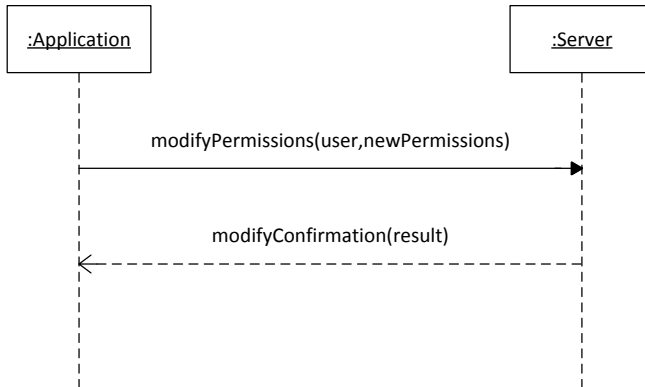
Create User Accounts:



Delete User Accounts:

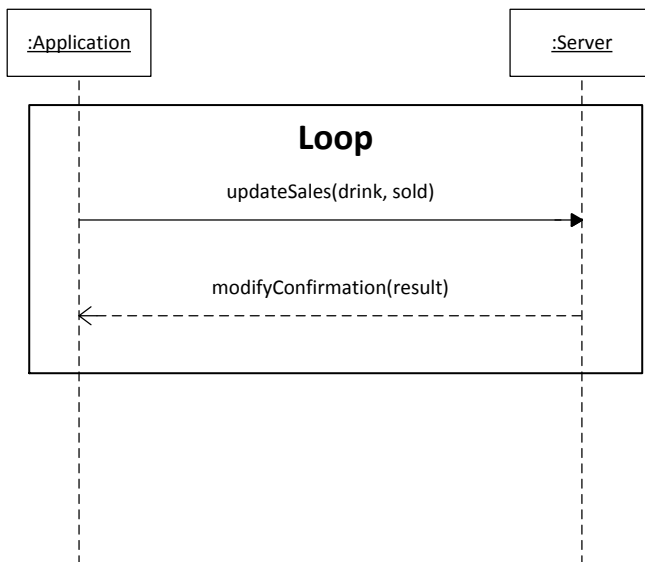


Alter User Permissions:

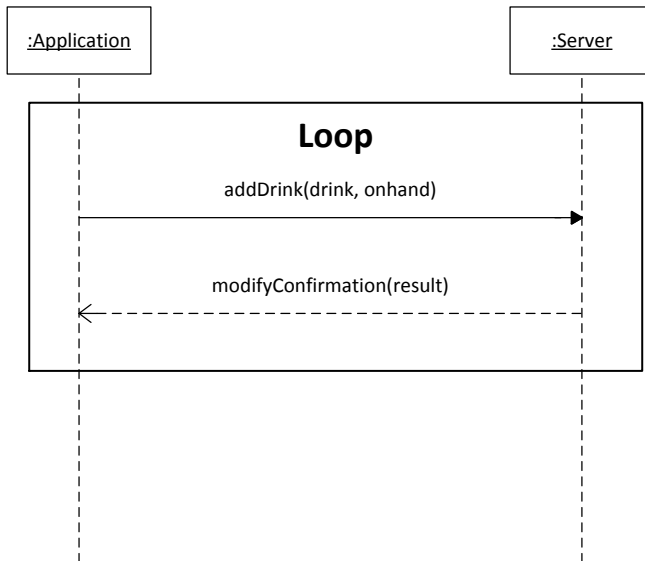


Inventory Management Sequence Diagrams

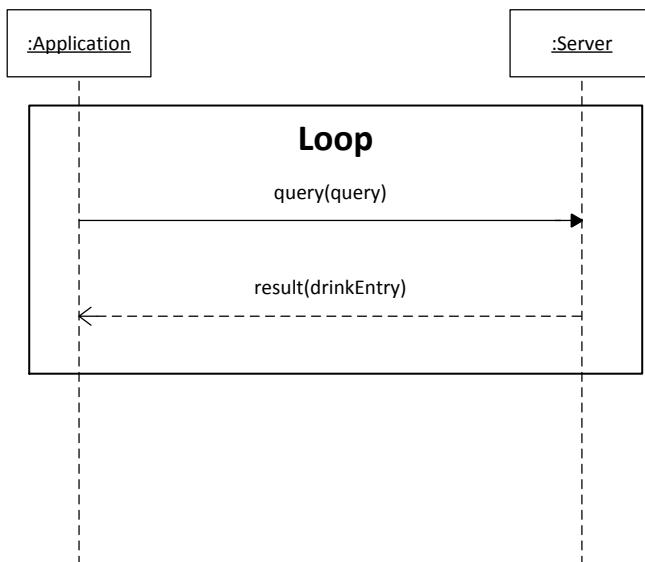
Enter Alcohol Sales



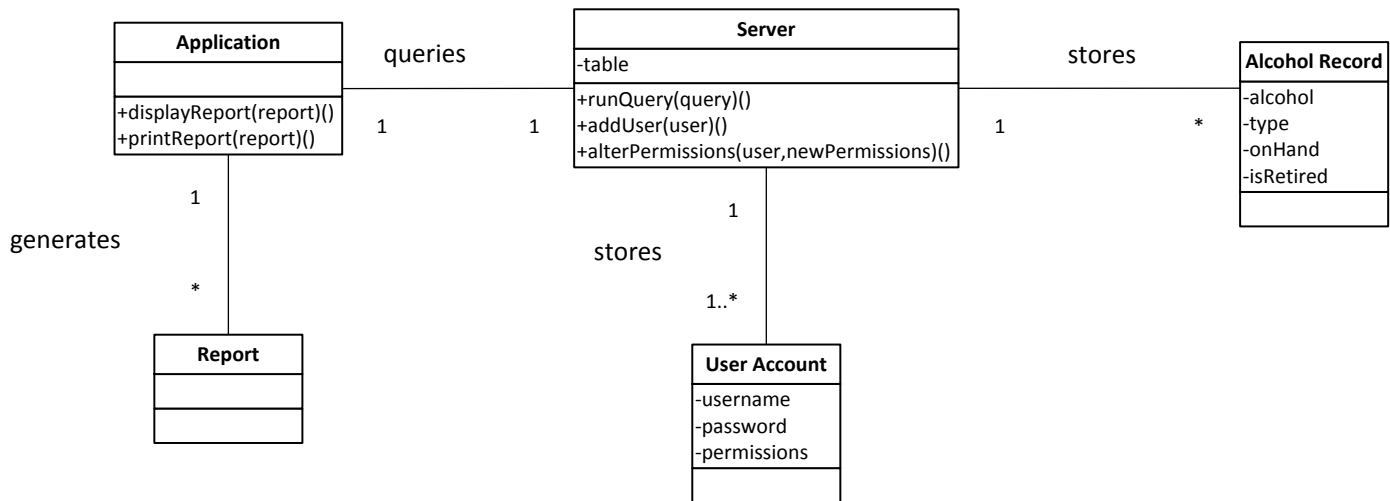
Enter new alcohol:



View Inventory/Report:



Design Class Diagram:



These diagrams are all relatively simple because all of the use cases being implemented are relatively simple from a communication perspective. The server is simply responsible for providing the data that the application needs, and the application does all the necessary formatting, calculating, and displaying of the information that the server is providing.

The “create user account” and “enter new alcohol” diagrams both use the Creator GRASP method. The sole purpose of both of these methods is to create records in the database. In the former case, we’re creating a user account record in the table for users, and in the latter case we’re adding several records of individual alcohols in the various tables for storing different types of alcohol.

“View inventory report” uses the Information Expert method because it places the responsibility of handling the information needed to generate the reports solely on the database. The application doesn’t have to worry about storing the information, it simply sends the information it wants to store off to the database and requests the information it needs from the database when it is needed. Additionally, the database doesn’t have to worry about performing any calculations or formatting, it simply is responsible for providing the information that the application requests when it is requested.

“Alter user permissions” and “enter alcohol sales” both use the Protected Variations GRASP method. The former case is very simple to understand; we want to be very careful about controlling who and what can modify the permissions of user accounts to prevent any unintended malicious activity. The latter case follows the same idea because entering alcohol sales is ultimately modifying information, and we want to be careful about who can modify this information. Entering alcohol sales won’t immediately modify the balances on hand, but it has an effect on the number inventory on hand later, so it is performing delayed modifications.