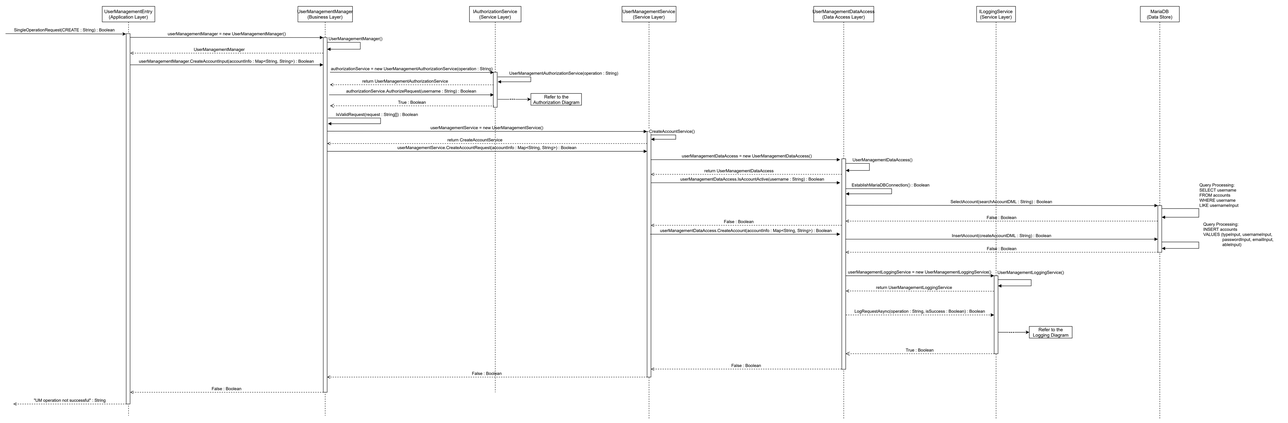
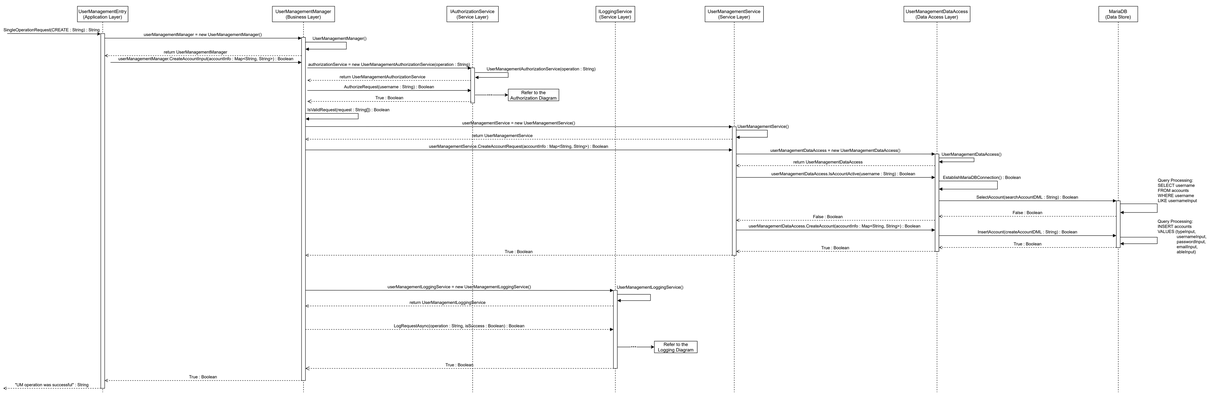
FAILURE CASE DIAGRAMS

Fail Case 13
New Account is not Inserted into MariaDB
Reasons:
- incorrect DML syntax
- MariaDB fails either by connection timeout or external factors



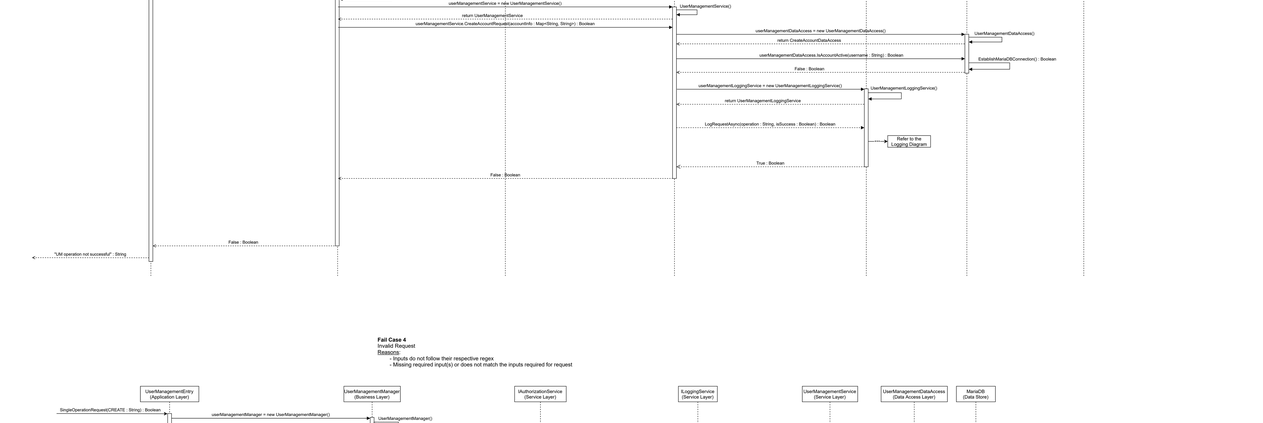
SUCCESS CASE DIAGRAM



Success Scenario

1. Single Request is made for the CREATE operation
2. New instance of CreateAccountManager is created
3. Input account info
4. Check if request is valid, the following is checked:
- does the input follow the appropriate regex
- does the input contain all necessary info for the operation request
5. New instance of CreateAccountService is created
6. Call the CreateAccount Service to process operation with the validated input
7. New instance of UserManagementDataAccess is created
8. Check if the account already exists using the username
9. Establish the MariaDB connection in DataAccess if not already opened
10. Perform a SELECT query on the Accounts table in the database:
    SELECT username
    FROM accounts
    WHERE username
    LIKE usernameInput
    Returns FALSE if not found.
11. Return TRUE to the Manager if no account already exists, and continue
12. Create the account with the input info
13. Perform a INSERT query on the Accounts table in the database:
    INSERT accounts
    VALUES (typeInput, usernameInput,
    passwordInput, emailInput,
    ableInput)
    Returns TRUE if account is successfully created.
14. Return TRUE to the Service if the account was successfully created
15. Return TRUE to the Manager if the request was successfully performed
16. Return TRUE to System and follow with the appropriate Logging for this operation

Fail Case 10a
New Account already exists in MariaDB
Reasons:
- account already exists



Fail Case 10b
Could Not Process Query
Reasons:
- incorrect DML syntax
- MariaDB fails either by connection timeout or external factors

Fail Case 9
MariaDB Connection could not be Established
Reasons:
- EstablishMariaDBConnection() returns False
  - **NOTE**: continue to call this method until True
    If still no connection after 5 seconds, log the error and end the process

Fail Case 4
Invalid Request
Reasons:
- Inputs do not follow their respective regex
- Missing required input(s) or does not match the inputs required for request