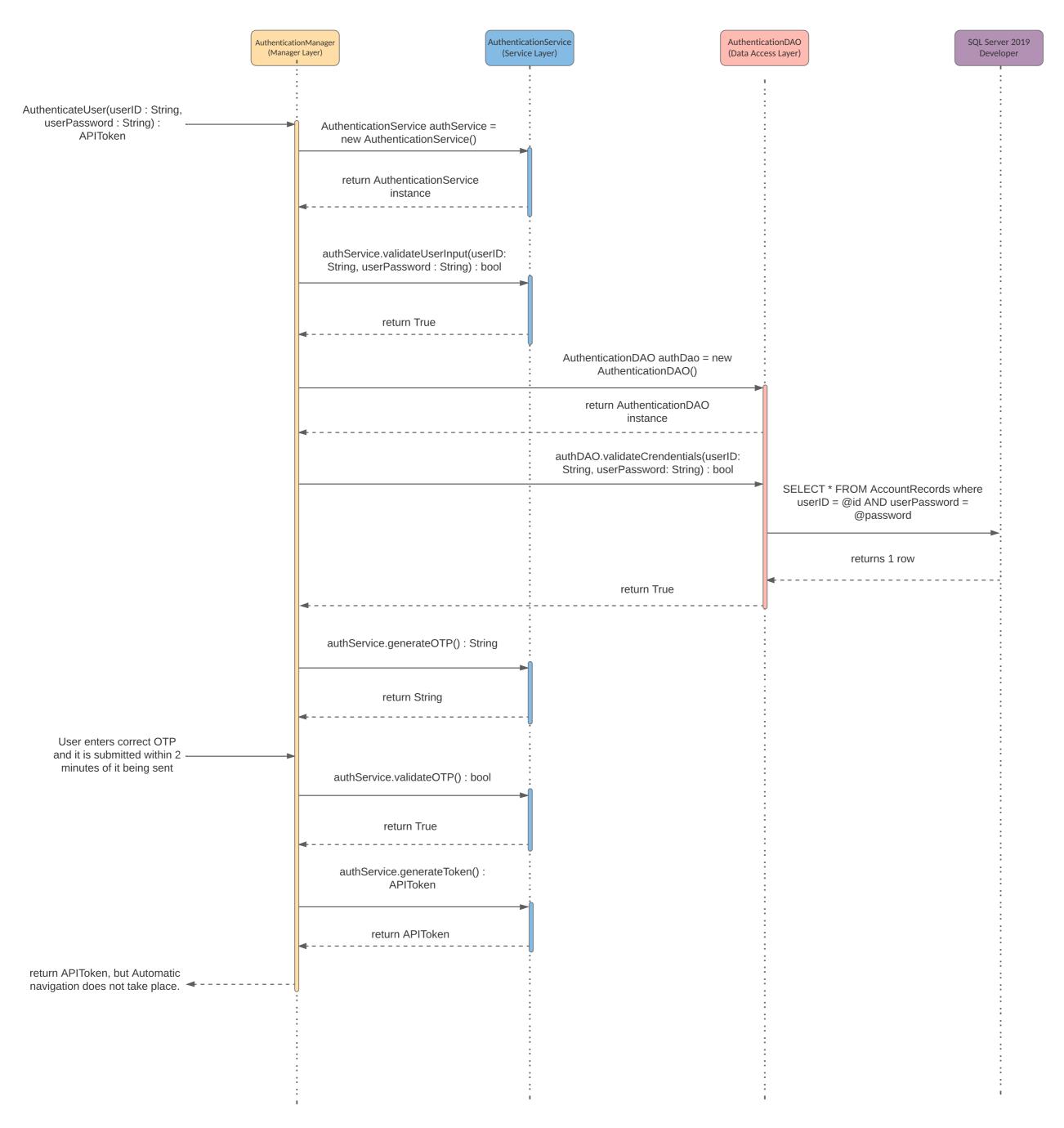
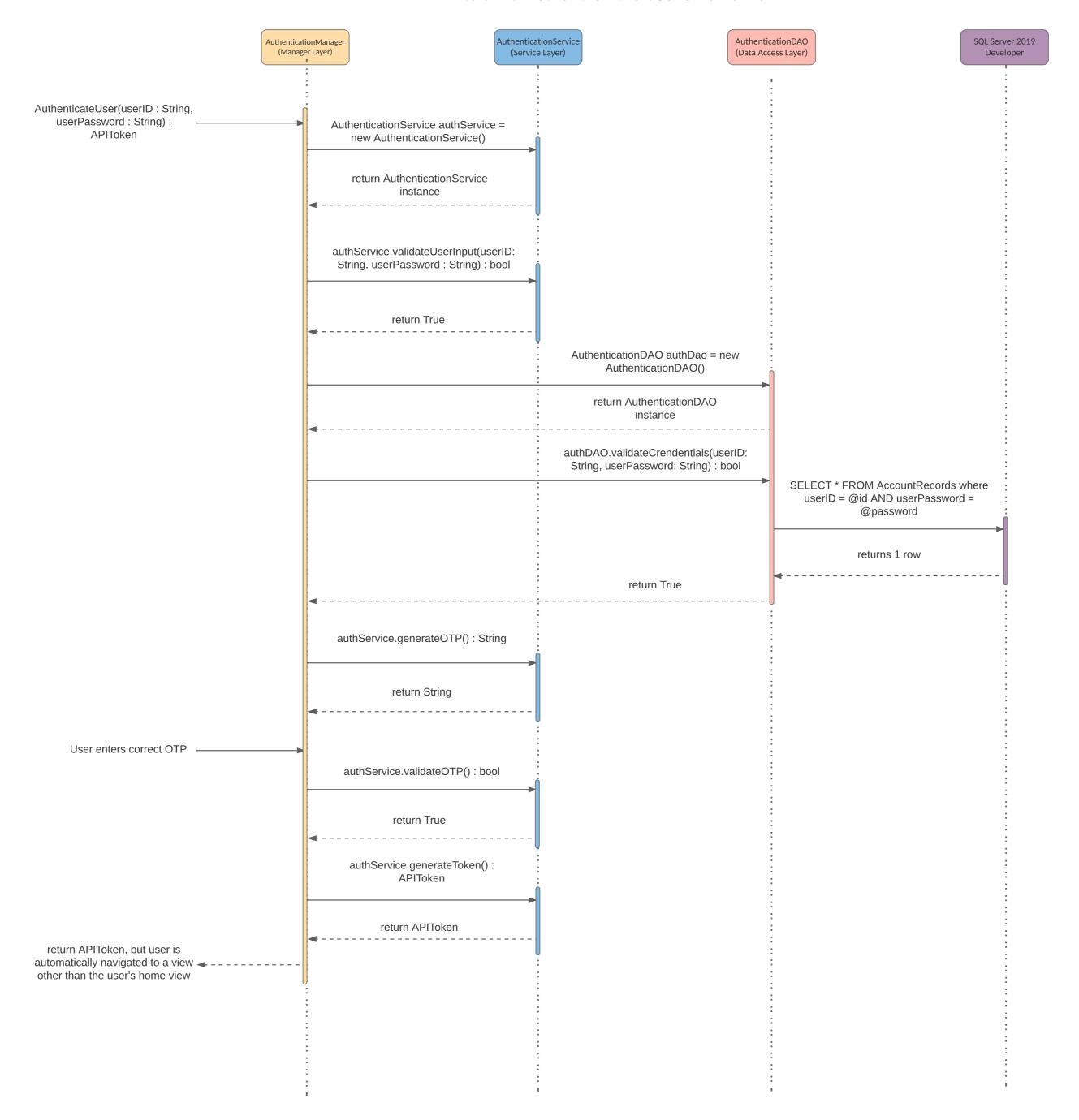
- User inputs their username and password
- We validate both the username and password meet the requirements specified in the core requirements
- upon checking to see that the format of the entered username and password match our standards we cross reference with the database to check to see if they have an account with us
- Once we're sure that the entered credentials is a registered account, we will then generate a one time password and send it to the user
- The user would then receive the one time password and be prompted to enter the password on screen
- We verify that the OTP entered by the user matches the one we generated and authorize the user from there

Success case #1: User submits valid security credentials.

The user is automatically navigated to the user's home view.

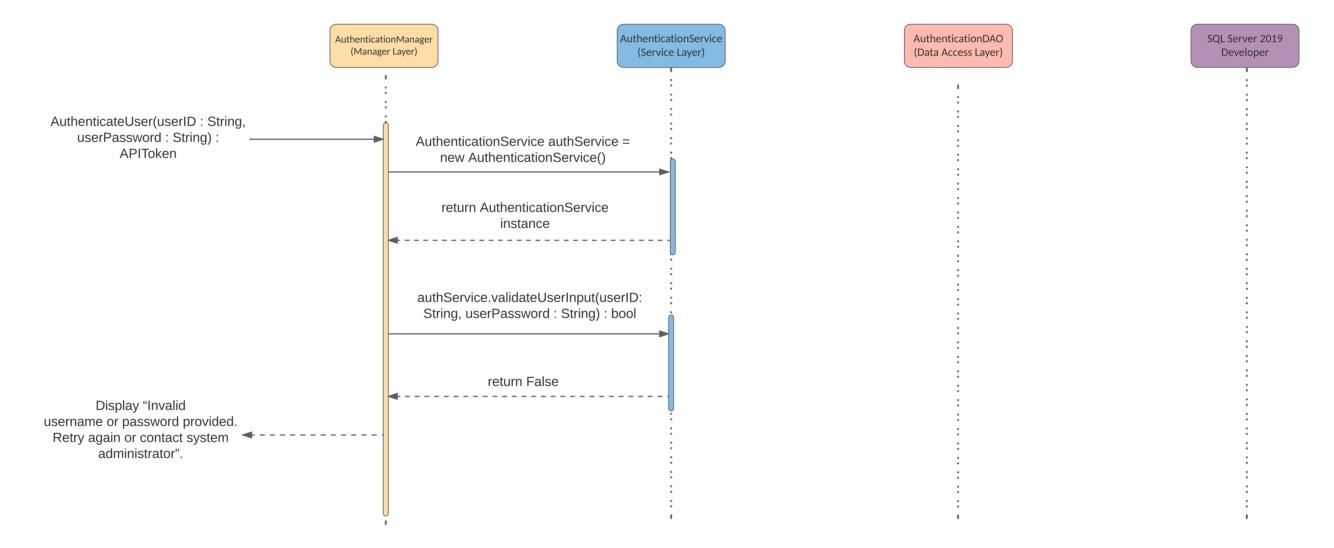
AuthenticationService AuthenticationDAO SQL Server 2019 AuthenticationManager (Manager Layer) (Service Layer) (Data Access Layer) Developer AuthenticateUser(userID: String, userPassword : String) : AuthenticationService authService = **APIToken** new AuthenticationService() return AuthenticationService instance authService.validateUserInput(userID: String, userPassword : String) : bool return True AuthenticationDAO authDao = new AuthenticationDAO() return AuthenticationDAO instance authDAO.validateCrendentials(userID: String, userPassword: String): bool SELECT * FROM AccountRecords where userID = @id AND userPassword = @password returns 1 row return True authService.generateOTP(): String return String User enters correct OTP and it is submitted within 2 minutes of it being sent authService.validateOTP(): bool return True authService.generateToken() : APIToken return APIToken return APIToken, navigate user to the 🗻 home page





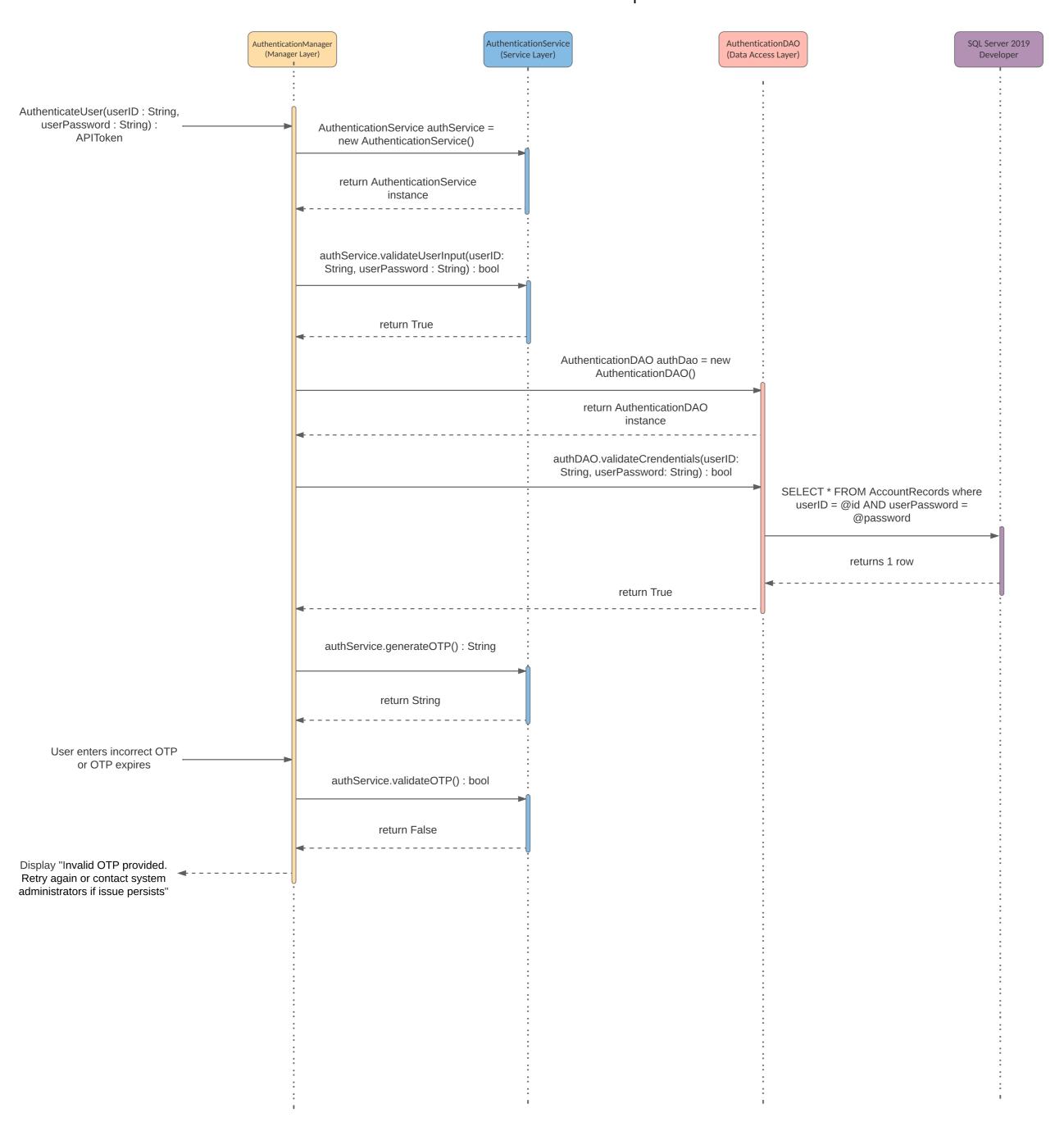
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Failure Case #3: User submits invalid username. A system message displays "Invalid username or password provided. Retry or contact system admininstrator".



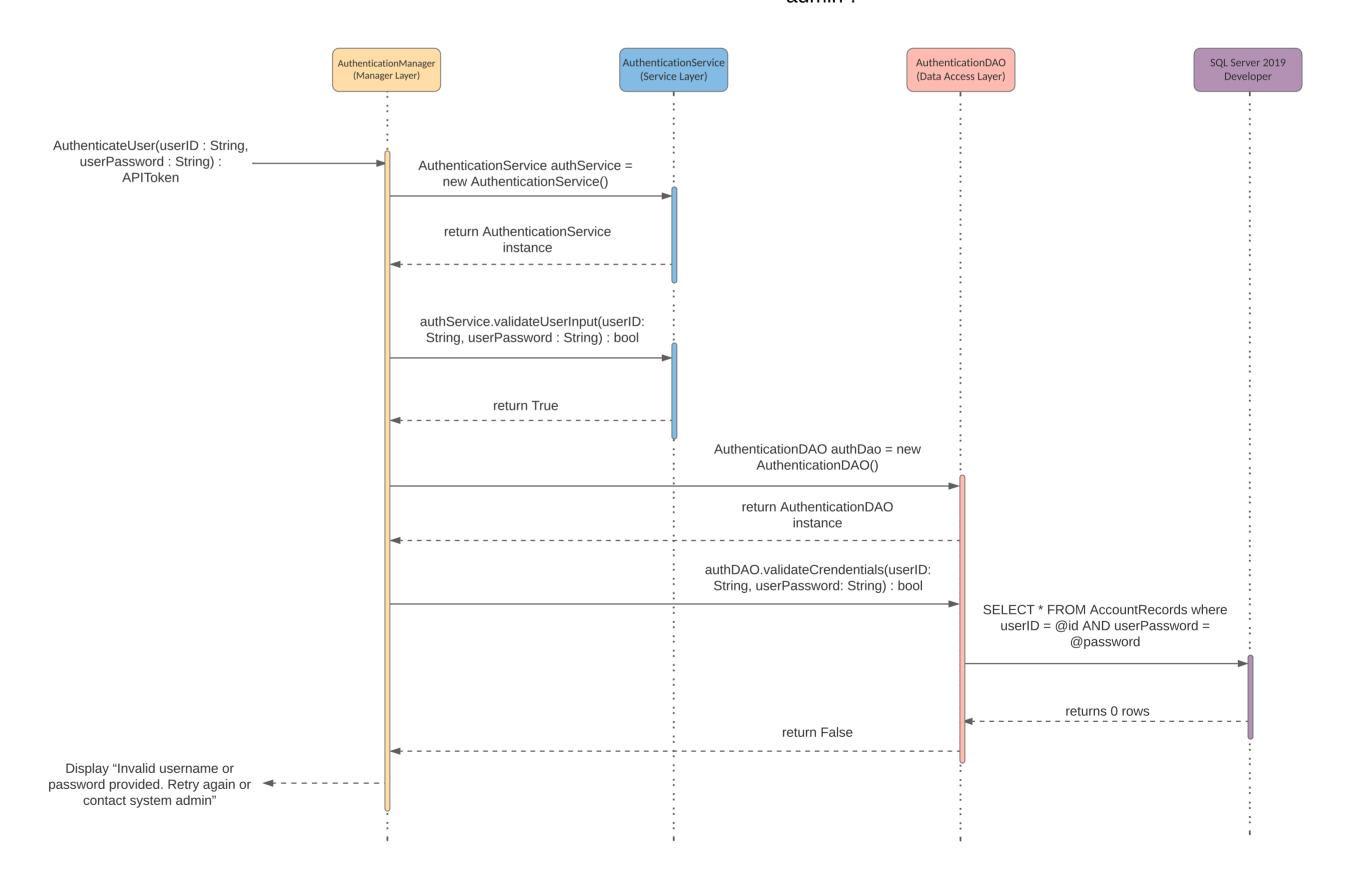
Failure case #4: User submits invalid OTP. A system message displays "Invalid OTP provided. Retry again or contact system administrators if issue persists".

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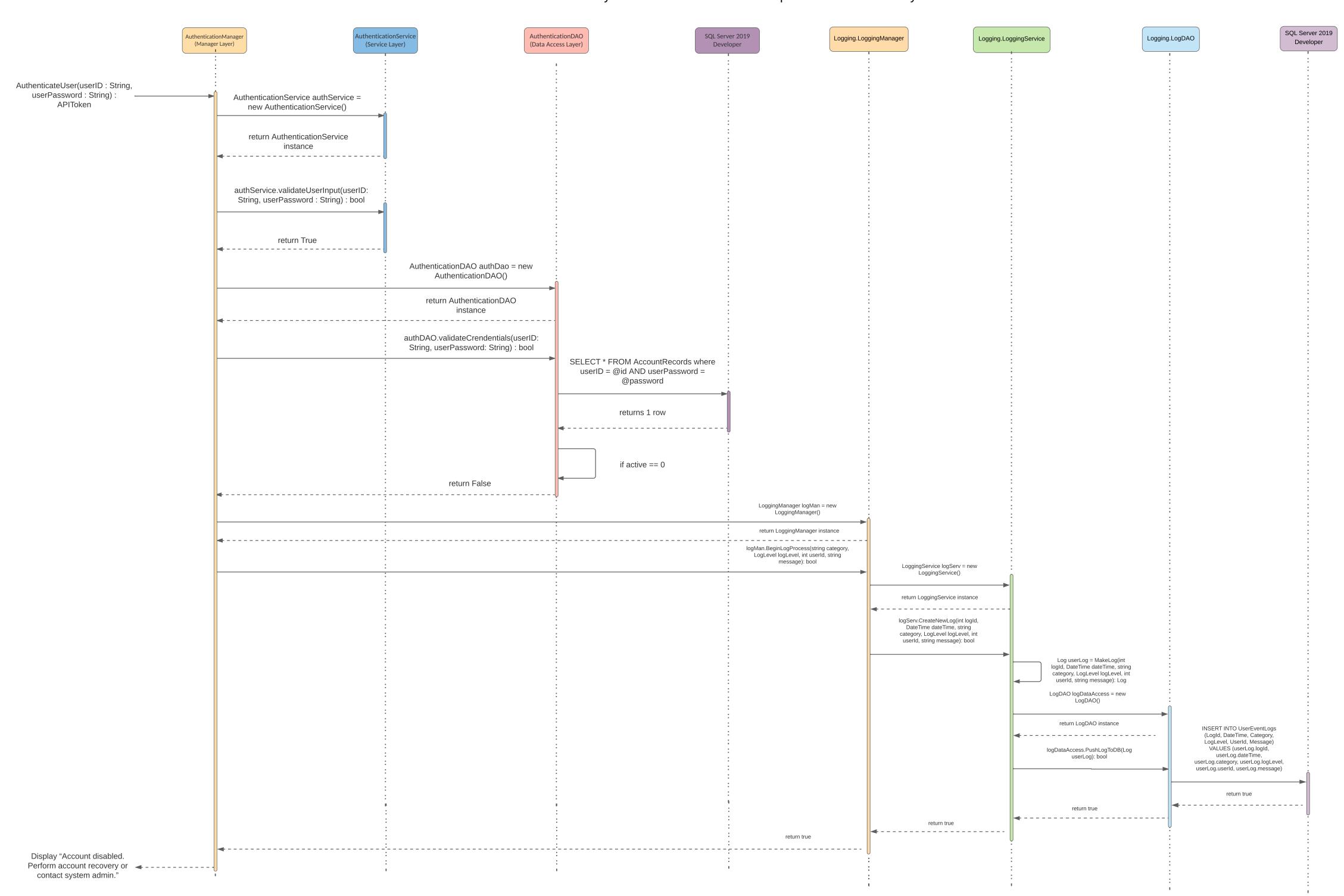


Failure Case 5: User submits invalid security credentials. A system message displays "Invalid username or password provided. Retry again or contact system admin".

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Failure Case #7: User submits valid security credentials for a disabled account. A system message displays "Account disabled. Perform account recovery or contact system admin". The failure attempt is not recorded accurately. The system attempts to log that the failure attempt did not complete successfully.

