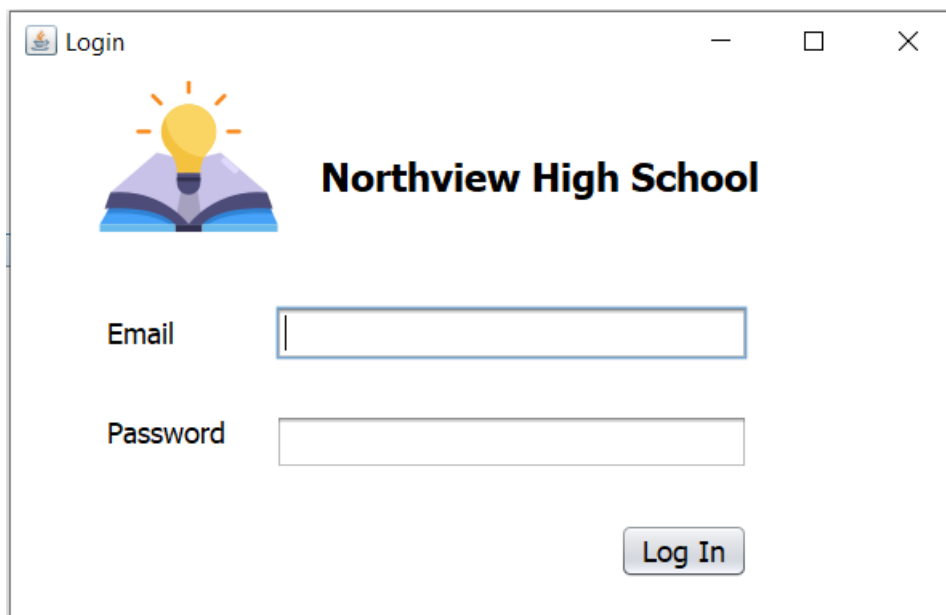**Lab Sheet Title**: Design & Develop Java Swing GUI Applications with database connection.

Instructions:
- ➢ Design the following interfaces using Java Swing and implement the functionalities given below.
- ➢ Select suitable Java swing controls and components to create the following interfaces.

Description:

Northview High School has requested the development of an application to manage their staff operations. After careful consideration, the development team has decided to create a desktop application using Java technology. Assume that you are a member of this development team and required to develop following functionalities.

Figure 1:Login Screen

Design the interface shown in Figure 01 using Java Swing controls. You can download the necessary images from the Resources folder, which is available on the VLE course page.

Once clicking on the "Log In" button, the application must establish a connection with the database to verify the correctness of the entered user data.

If the user inputs the correct credentials to access the application, the application should redirect the user to the Admin Dashborad interface shown in Figure 03.

However, if the user inputs an incorrect username and/or password, the Sign Ininterface should display a message informing the user that "The entered username or password is incorrect." interface shown in Figure 02.
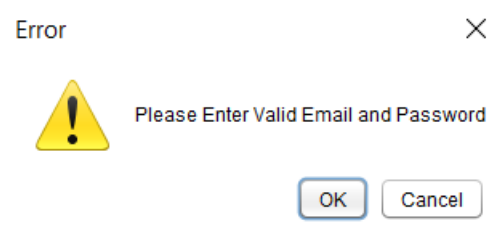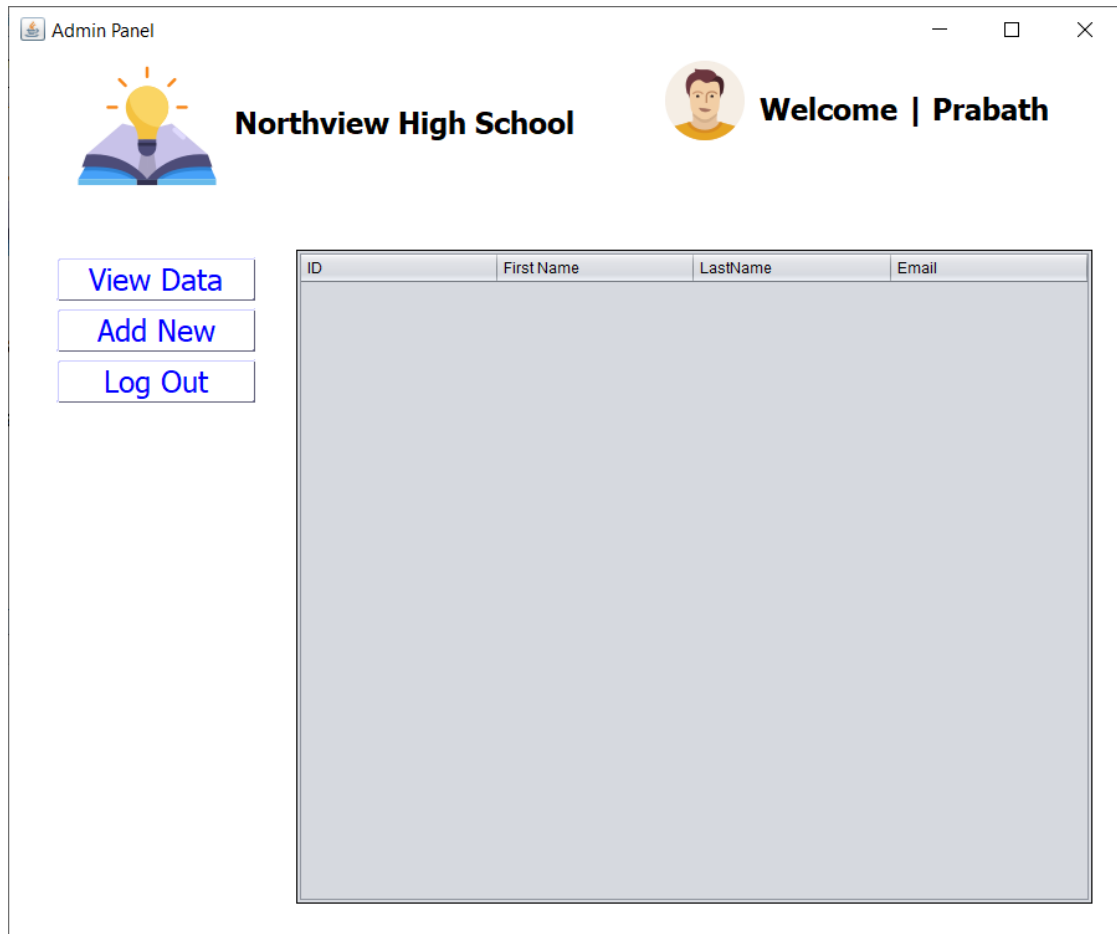
Figure 2:Login Error

Figure 3:Admin Dahsboard

Once the user is redirected to the AdminDashboard interface, the Log In window should be automatically closed.

Logged in username will dispayed on the Admin Dashborad after the "welcome" text.

In the Admin Dashboard window, the "Log Out" button should trigger an event that closes the Dashboard window and opens the Log in In window.

Once clicking on the "View Data" button, the application must establish a connection with the database and load the staff data to the table interface shown in Figure 04.

When the user clicks on the "Add New" button, it will open a new window, which provides functionality to add a new staff member to the databse. You must design an interface for that operation.
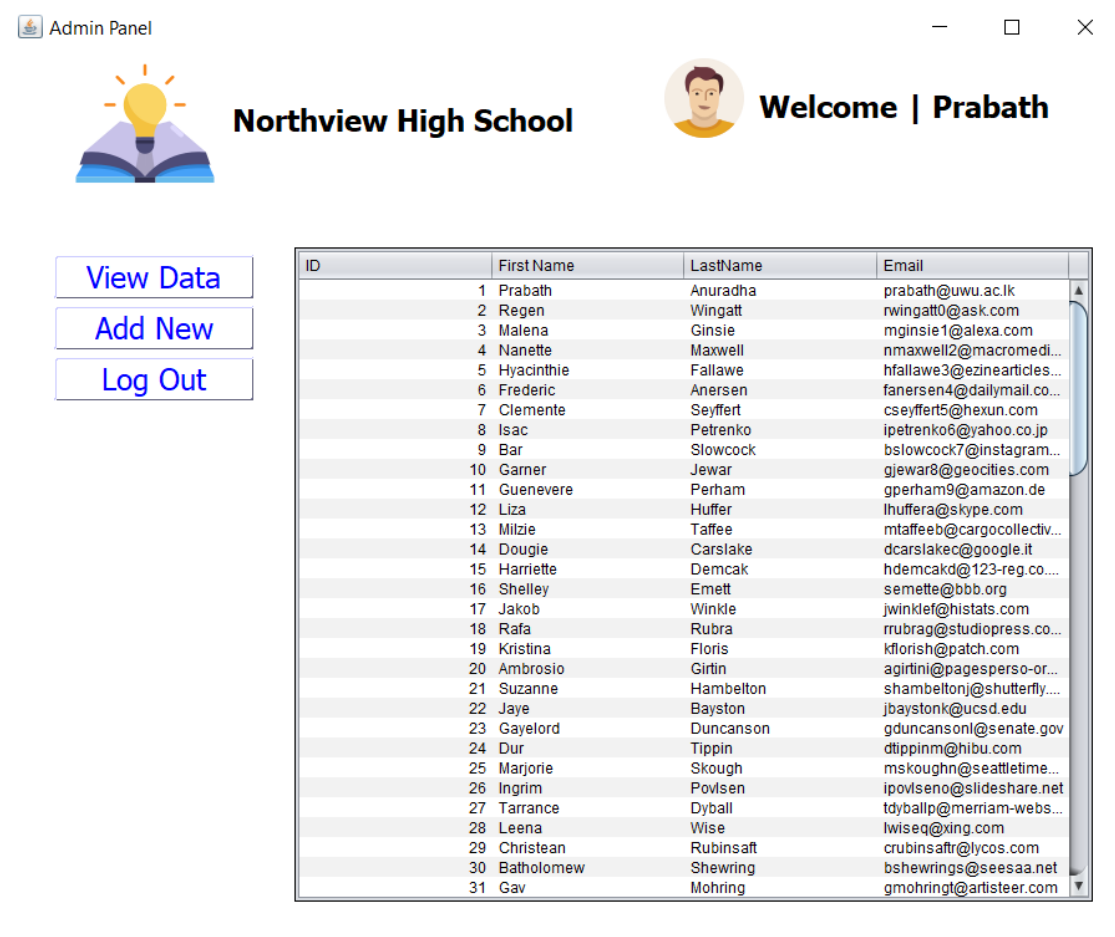

Figure 4:Admin Dashboard View Data

Once clicking on the table row, the application load the edit or delete data view interface shown in Figure 05.

Subsequently, clicking the 'Delete' button will remove the selected staff member from the database, while the 'Update' button will modify its details.

Before sending the data to the database pop-up message will appear to confirm the action. If the user clicks on "OK" The data will update in the database successfully. If the user clicks on the "Cancel" button operation will be terminated. Interface shown in Figure 06.

Before deleting the data from the database pop-up message will appear to confirm the action. If the user clicks on "OK" The data will be deleted from the database successfully. If the user clicks on the "Cancel" button operation will be terminated. Interface shown in Figure 07.
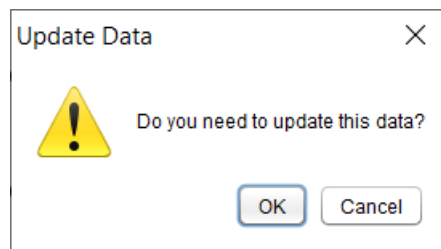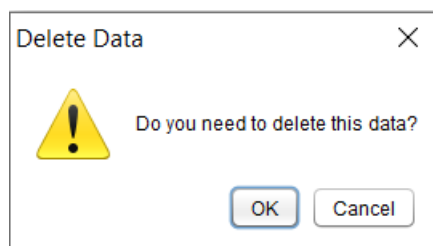
Figure 5:Update or Delete

Figure 6:Update Confirmation Pop Up
Message

Figure 7:Delete Confirmation Pop Up
Message