

Event Handlers in LOG_PAGE

- Method: jButton1ActionPerformed() // Login Button
 - Capture user input for username, ID number, and password
 - Convert ID number from string to integer
 - Validate user credentials:
 - If username is "Admin", ID number is 12345678, and password is "Admin123":
 - Log in successfully and display Home_Page
 - Else:
 - Show error message "Incorrect Username or Password"

Class: LOG_PAGE extends JFrame

- Variables:
 - username: TextField for entering username
 - password: PasswordField for entering password
 - idnumber: TextField for entering ID number
 - Constructor: LOG_PAGE()
 - Call initComponents()

Main Method

- main()
 - Set Nimbus Look and Feel (if available)
 - Create and display the Home_Page frame

Class: Home_Page extends JFrame

- Variables:
 - profiles: Instance of StudentGrading
 - desktop: JDesktopPane for dynamic content display

- Constructor: Home_Page()
- Call initComponents()
- Method: initComponents()
 - Set up the main panel (jPanel1)
 - Add a header label with "UNIVERSITY GRADING SYSTEM"
 - Add buttons: "About Us", "Edit Student Grades", "Show Chart", "Log Out"
 - Set up a desktop pane to dynamically display forms/pages
 - Add event listeners for buttons

Event Handlers

- Method: jButton2ActionPerformed() // "About Us" Button
 - Clear desktop pane (desktop.removeAll())
 - Create an instance of About_Us
 - Add About_Us to desktop
 - Display About_Us
- Method: jButton3ActionPerformed() // "Edit Student Grades" Button
 - Clear desktop pane (desktop.removeAll())
 - Create an instance of StudentGrading
 - Set profiles to the newly created StudentGrading object
 - Add StudentGrading to desktop
 - Display StudentGrading
- Method: jButton4ActionPerformed() // "Show Chart" Button
 - Call showChart()

Chart Display

- Method: showChart()
 - Create a DefaultCategoryDataset by calling createDataset()
 - Generate a bar chart using ChartFactory.createBarChart()
 - Set chart dimensions and preferences
 - Create a ChartPanel to hold the chart
 - Open a new JFrame and display the chart panel

- Method: createDataset()
 - Create an empty dataset
 - Get the grades from profiles.getGrades()
 - Initialize an array catCount to hold the count of grades in each category (0-10, 11-20, ..., 91-100)
 - Loop through the grades:
 - Divide each grade by 10 to determine the category it belongs to
 - Increment the corresponding category count in catCount
 - Create category labels (e.g., "1-10", "11-20", ...)
 - Add each category and its count to the dataset
 - Return the completed dataset

Log Out

- Method: jButton6ActionPerformed() // "Log Out" Button
 - Create an instance of LOG_PAGE
 - Set current window to invisible (setVisible(false))
 - Display the LOG_PAGE

- Method: jButton2ActionPerformed() // Exit Button
 - Exit the application