



## Lab 5: GUI- Menu Bar- Inputs / Outputs

### Exercise 1:

#### Problem Description

Design a simple text editor in Java using Swing that allows users to type text in a text area and save it to a file or open an existing file. The editor should use a JMenuBar with menus and menu items for handling file operations.

#### Requirements

##### 1. Graphical User Interface:

- Use JMenuBar, JMenu, and JMenuItem for the menu system.
- Include the following menu items under the **File** menu:
  - **New**: Clears the text area.
  - **Open**: Opens a file and loads its content into the text area.
  - **Save**: Saves the current text to a file.
  - **Exit**: Closes the application.

##### 2. Text Area:

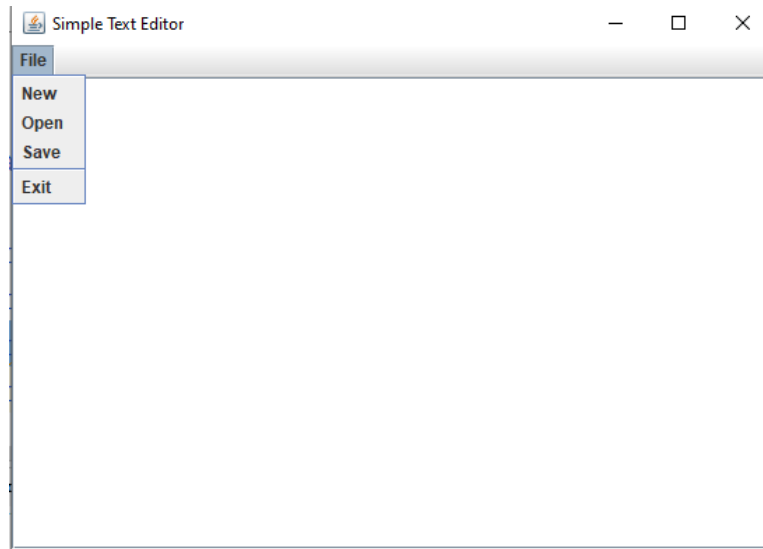
- Provide a JTextArea for the user to input and edit text.
- Use a scrollable pane (JScrollPane) for the text area.

##### 3. File Handling:

- Use Java's FileWriter and FileReader for saving and reading files.
- Display file dialogs (JFileChooser) for file selection.

##### 4. Error Handling:

- Handle file I/O exceptions gracefully with error messages.



## Exercise 2: Employee Management System Using Swing

### Problem Description

Create a Java Swing application that allows managing employee records in a single file. The application should have two modes:

#### 1. Add Employee:

- A form to input employee details: **Name**, **ID**, **Department**, and **Salary**.
- A "Save" button to store the entered data in a text file.

#### 2. Search Employee:

- A form with a search field to input an employee's **ID**.
- A "Search" button to retrieve and display the employee's information if found. Otherwise, display a message stating "Employee not found."

The image displays two windows from an 'Employee Management System'. The 'Add Employee' window is in the foreground, showing fields for 'Employee ID:', 'Name:', 'Department:', and 'Salary:', along with 'Save' and 'Back' buttons. The 'Search Employee' window is in the background, showing a field for 'Enter Employee ID:' and a 'Search' button, with a 'Back' button at the bottom.