Nama : Ade Hikmat
Kelas: TIF K 222B
NIM: 22552011130

Laporan UTS PBO 2
1. Perhitungan dalam program
   Code:

```java
// Get values from form fields
String trainNumber = trainNumberField.getText();
String departureStation = departureStationField.getText();
String arrivalStation = arrivalStationField.getText();
Date departureTime = departureTimeChooser.getDate();
Date arrivalTime = arrivalTimeChooser.getDate();
double ticketPrice = Double.parseDouble(ticketPriceField.getText());
double ppnPrice = Double.parseDouble(ppnPriceField.getText());
double finalPrice = (ppnPrice / 100 * ticketPrice)+ticketPrice;

// Use the data as needed (e.g., save to database, etc.)
```

Result:

2. Pencarian barang
   Code:

```java
private void search(String query) {
    if (query.isEmpty()) {
        updateTable(this.departureSchedule.getIternaryList()); // Display the original data list
        return;
    }

    List<Itinerary> filteredList = new ArrayList<>();
    for (Itinerary itinerary : this.departureSchedule.getIternaryList()) {
        if (itinerary.getTrainNumber().toLowerCase().contains(query.toLowerCase())
                || itinerary.getDepartureStation().toLowerCase().contains(query.toLowerCase())
                || itinerary.getArrivalStation().toLowerCase().contains(query.toLowerCase())) {
            filteredList.add(itinerary);
        }
    }
    updateTable(filteredList); // Update the table with the filtered data
}
```

   Result:

Menu					
TN1				Search	
Train Number	Departure Station	Arrival Station	Departure Time	Arrival Time	Ticket Price Includ...
TN123	Station A	Station B	Sun May 05 15:5...	Sun May 05 15:5...	50.0

3. Calendar dan Data
   Code:

```java
add(arrivalStationField);

    // Departure Time
    JLabel departureTimeLabel = new JLabel("Departure Time:");
    departureTimeChooser = new JDateChooser();
    add(departureTimeLabel);
    add(departureTimeChooser);

    // Arrival Time
    JLabel arrivalTimeLabel = new JLabel("Arrival Time:");
    arrivalTimeChooser = new JDateChooser();
    add(arrivalTimeLabel);
    add(arrivalTimeChooser);
```
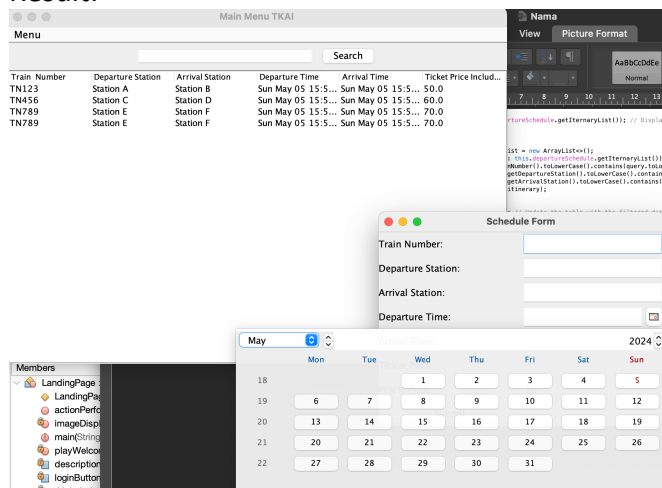
   Result:

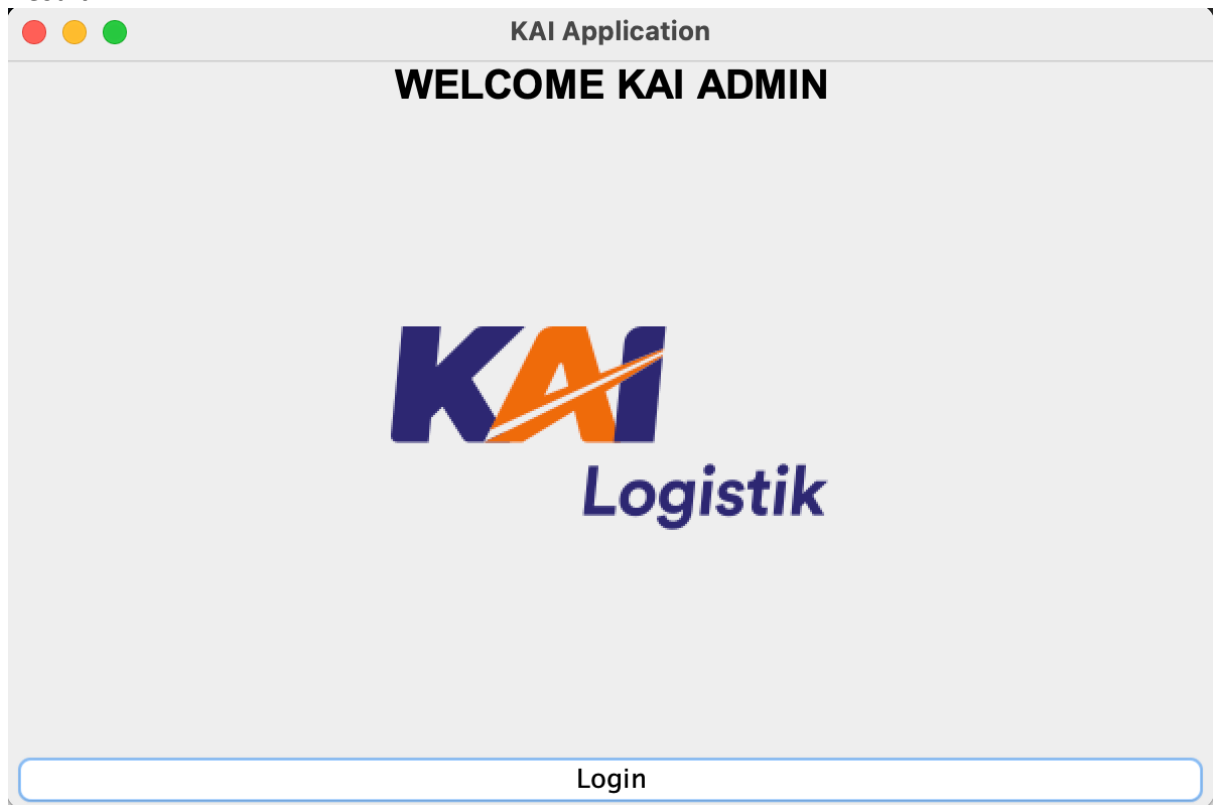4. Terdapat Gambar menarik pada Aplikasi (bisa mengunakan AWT atau Swing atau JAVA FX)

Code:

```java
private void imageDisplay() {
    URL location = getClass().getResource("/KAILOGO.png");
    if (location == null) {
        System.err.println("Resource /KAILOGO.png not found.");
        return;
    }

    ImageIcon imageIcon = new ImageIcon(location);
    JLabel imageLabel = new JLabel(imageIcon);
    imageLabel.setHorizontalAlignment(JLabel.CENTER);
    imageLabel.setVerticalAlignment(JLabel.CENTER);

    // Add image label to the frame in a way that it doesn't overlap with other components
    add(imageLabel, BorderLayout.CENTER);

    // Make sure changes are visible
    revalidate();
    repaint();
}
```

Result:

5. Terdapat Pengelolaan suara, Memainkan suara, Mengontrol suara
Code:

```java
private void playWelcomeAudio() {
    try {
        // Load an audio file as a resource stream
        InputStream audioStream = getClass().getResourceAsStream("/welcome.mp3");
        if (audioStream == null) {
            throw new IOException("Audio file not found");
        }

        // Use JLayer's Player to play MP3
        Player player = new Player(audioStream);
        new Thread(() -> {
            try {
                player.play();
            } catch (JavaLayerException e) {
                JOptionPane.showMessageDialog(this, "Failed to play audio: " + e.getMessage(), "Error", JOptionPane
            }
        }).start();

    } catch (IOException | JavaLayerException e) {
        JOptionPane.showMessageDialog(this, "Failed to play audio: " + e.getMessage(), "Error", JOptionPane.ERROR_M
    }
}
```

Result: Ketika aplikasi di buka aka nada suara welcome audio