

Web-based Train reservation system

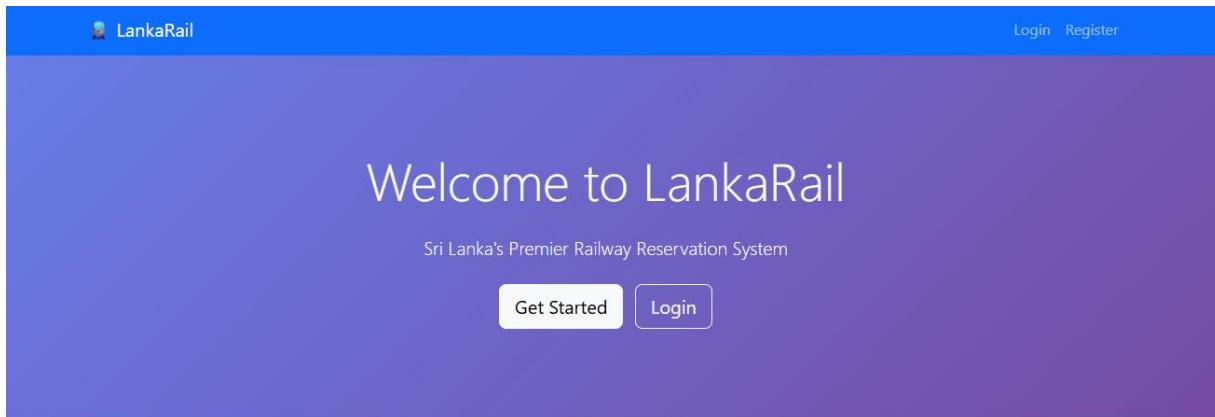
Design by under Software Engineering Module.

15-10-2025

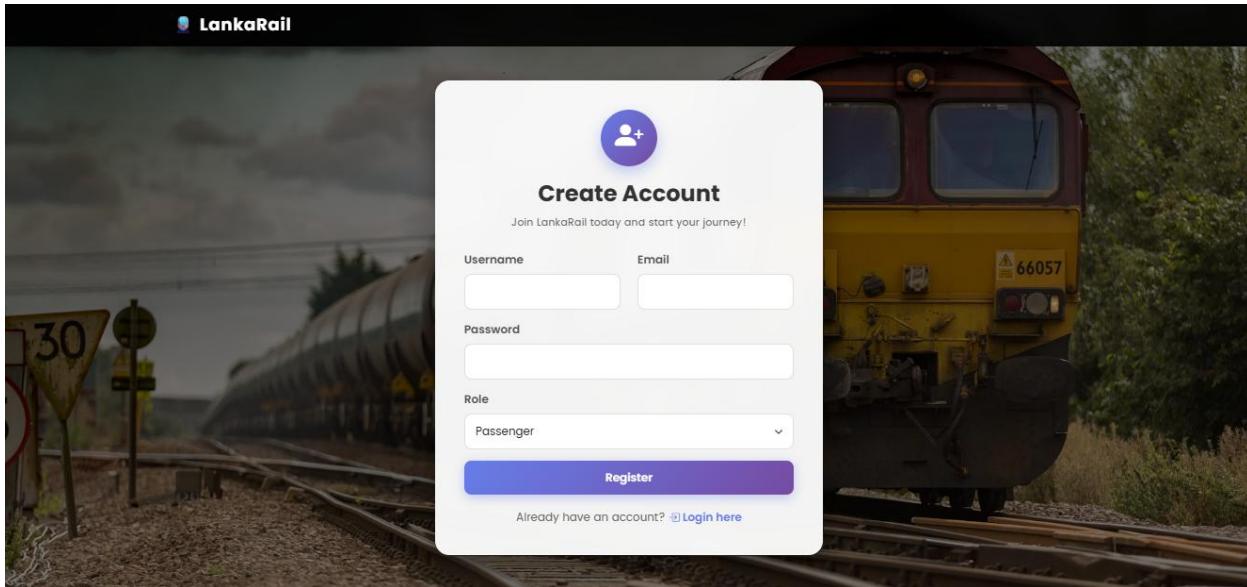
Under this topic I create web pages for users to log their own way. If the user can be passenger, admin member or staff member they can access their own page using their own correct credentials. I designed this login page using two design patterns. Factory & singleton are the design patterns that I use for here. For the backend implementation I used Java language. For the frontend I use bootstrap with HTML for better UI design. For the data connection I used SQL workbench. In here all the validations are working properly. Without any trouble users can login to this page and do their tickets booking, cancellations, view train details etc.

These are User Interfaces that I developed

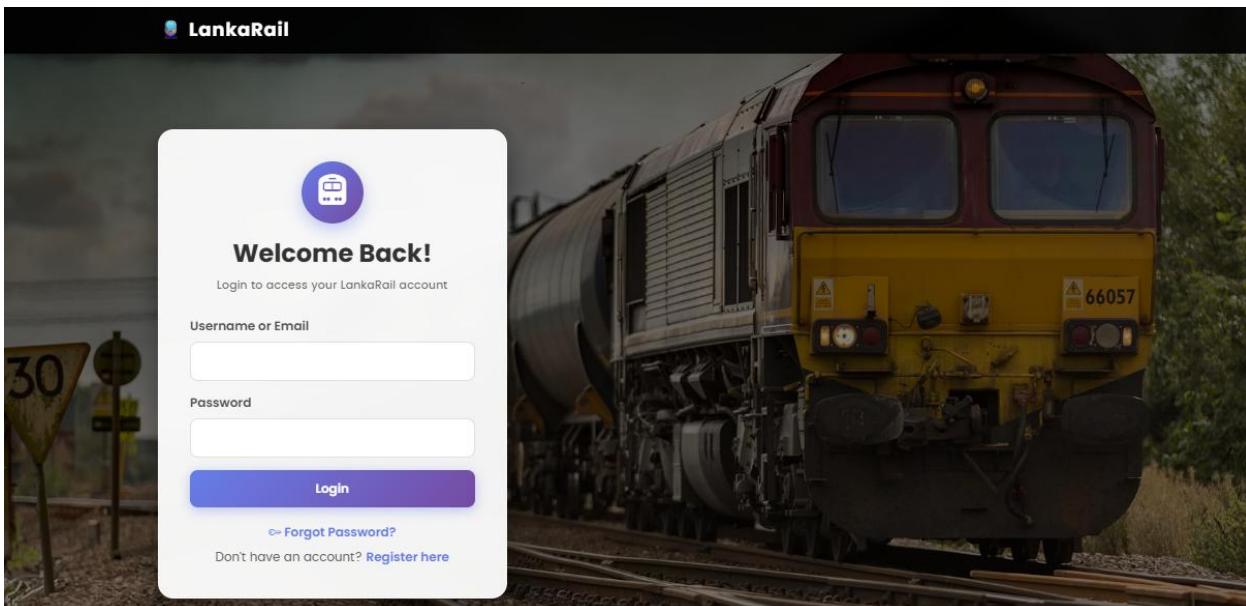
Dashboard:



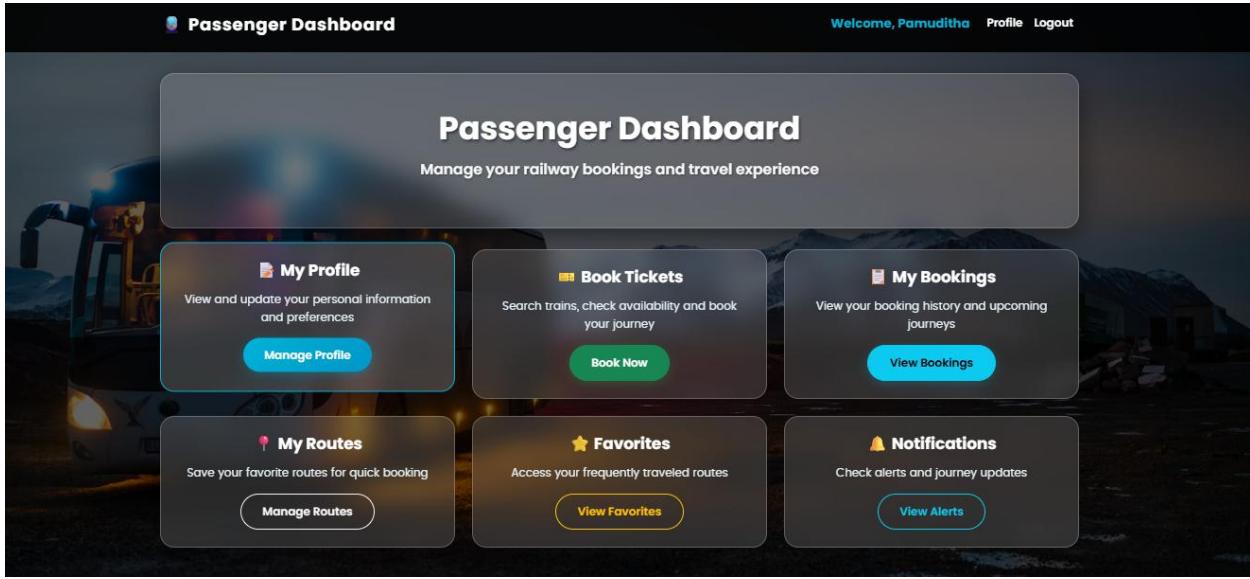
Registering Page:



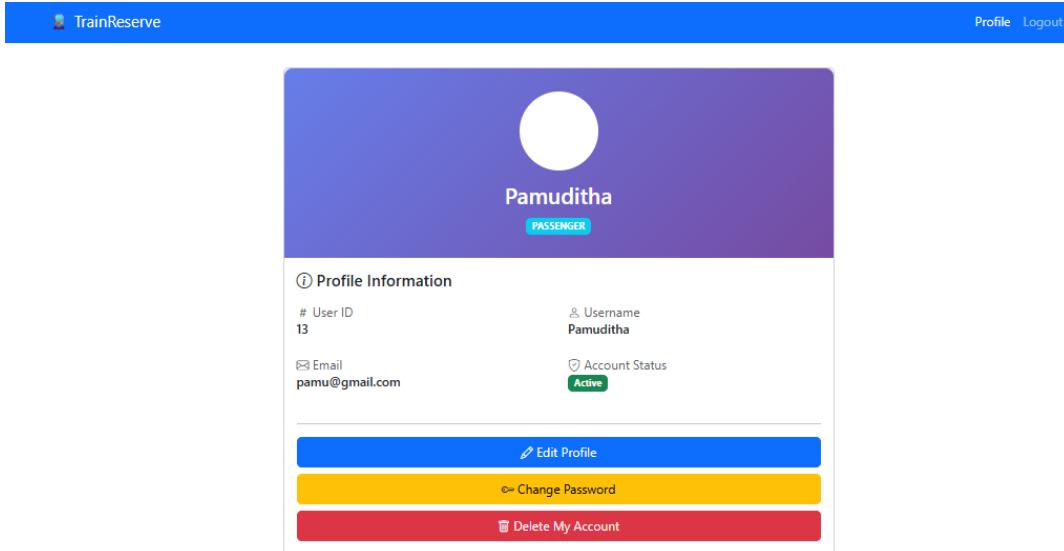
Login Page:



Passenger Dashboard:



Passenger CRUD Operation:



Admin Dashboard:

The Admin Dashboard interface includes a header with 'Admin Dashboard', 'Welcome, Admin0001', 'Profile', and 'Logout'. On the left, the 'Admin Navigation' sidebar lists 'Dashboard', 'User Management', and 'My Profile'. The main area displays four summary boxes: 'Total Users' (15), 'Active Users' (14), 'Admins' (6), and 'Passengers' (5). Below these are 'Quick Actions' buttons for 'Manage Users' and 'System Settings'.

Admin CRUD Operation:

The profile page for 'Admin0001' shows basic information: User ID (16), Username (Admin0001), Email (admin@gmail.com), and Account Status (Active). It features three prominent buttons: 'Edit Profile' (blue), 'Change Password' (yellow), and 'Delete My Account' (red).

The 'User Management' section of the dashboard includes a 'Filter Users' bar with 'All Roles' and 'All Status' dropdowns. The 'Users List' table provides detailed information for 11 users, including their ID, Username, Email, Role, Status, and Action buttons for View, Activate, Deactivate, and Delete.

ID	Username	Email	Role	Status	Actions
1	it24101896	it24101896@my.slilit.lk	Passenger	Inactive	<button>View</button> <button>Activate</button> <button>Delete</button>
2	JITHMI2003	wossm202403@signinid.com	Staff	Active	<button>View</button> <button>Deactivate</button> <button>Delete</button>
3	john_doe	john@example.com	Passenger	Active	<button>View</button> <button>Deactivate</button> <button>Delete</button>
4	admin_user	admin@example.com	Admin	Active	<button>View</button> <button>Deactivate</button> <button>Delete</button>
5	staff_member	staff@example.com	Staff	Active	<button>View</button> <button>Deactivate</button> <button>Delete</button>
6	Dhiman Abeywickrama	dhiman@gmail.com	Passenger	Active	<button>View</button> <button>Deactivate</button> <button>Delete</button>
7	Nuwan	Nuwan@gmail.com	Admin	Active	<button>View</button> <button>Deactivate</button> <button>Delete</button>
8	Kamal	kamal@gmail.com	Admin	Active	<button>View</button> <button>Deactivate</button> <button>Delete</button>
10	test1	test@gmail.com	Passenger	Active	<button>View</button> <button>Deactivate</button> <button>Delete</button>
11	admin01	admin@gmail.com	Admin	Active	<button>View</button> <button>Deactivate</button> <button>Delete</button>

Staff Dashboard:

The screenshot shows the Staff Dashboard interface. At the top, there's a header bar with the title "Staff Dashboard" and a welcome message "Welcome, Staff0001". Below the header is a main title "Staff Dashboard" and a subtitle "Manage railway operations and passenger services". The dashboard is divided into six main sections, each with an icon and a button:

- My Profile**: View and update your personal information and account settings. Button: "Manage Profile".
- Ticket Management**: Issue tickets, verify bookings and manage passenger tickets. Button: "Manage Tickets".
- Train Schedule**: View and manage train schedules, delays and departures. Button: "View Schedule".
- Reports**: Generate daily reports and view operational statistics. Button: "View Reports".
- Passenger Support**: Assist passengers with inquiries and ticket modifications. Button: "Support Center".
- Notifications**: Check important alerts and system announcements. Button: "View Alerts".

Staff CRUD Operation:

The screenshot shows the Staff Profile Edit screen. At the top, there's a header bar with the title "TrainReserve" and a "Logout" button. The main area features a purple header with a placeholder profile picture and the staff ID "Staff0001" with a "STAFF" badge. Below the header is a section titled "Profile Information" with the following details:

# User ID 17	Username Staff0001
Email staff@gmail.com	Account Status Active

At the bottom are three action buttons:

- Edit Profile** (blue button)
- Change Password** (yellow button)
- Delete My Account** (red button)