

System Implementation and User Manual: New Bus System

The New Bus System has been designed to enhance the travel experience for passengers, streamline operations for drivers, and offer comprehensive management options for administrators. This document serves as both a system implementation guide and a user manual to facilitate the understanding and usage of the system.

1. Introduction

This manual provides an all-encompassing guide to the new bus system, which includes a web-based booking feature for passengers, real-time trip updates for drivers, and comprehensive management capabilities for administrators. Built using modern web technologies such as HTML, CSS, JavaScript, ASP.NET Core Web API, and SQL Server, the system promises efficiency, reliability, and scalable solutions.

2. Overview

The New Bus System aims to improve the transportation experience by integrating digital solutions. Passengers can book trips seamlessly via a user-friendly web portal, drivers receive dynamic updates about their routes, and administrators gain access to robust management tools for overseeing buses, stations, trips, and users.

3. Technical Specifications

The system is developed using a combination of front-end technologies (HTML, CSS, JavaScript) and back-end frameworks (ASP.NET Core Web API), with data management handled by SQL Server. This technical foundation supports scalability, secure transactions, and intuitive interfaces.

4. Deployment

The deployment process involves setting up the application on a web server, configuring the database, and ensuring integrations between different system components. Detailed configuration settings and step-by-step instructions will be provided to facilitate a smooth deployment.

5. Features

- **Passenger Booking:** A seamless web-based booking interface for passengers to choose and manage trips.

- **Driver Trip Updates:** Real-time notifications and updates for drivers regarding their routes and schedules.
- **Administrative Management:** A comprehensive dashboard for managing buses, stations, trips, and user accounts.

6. Roles

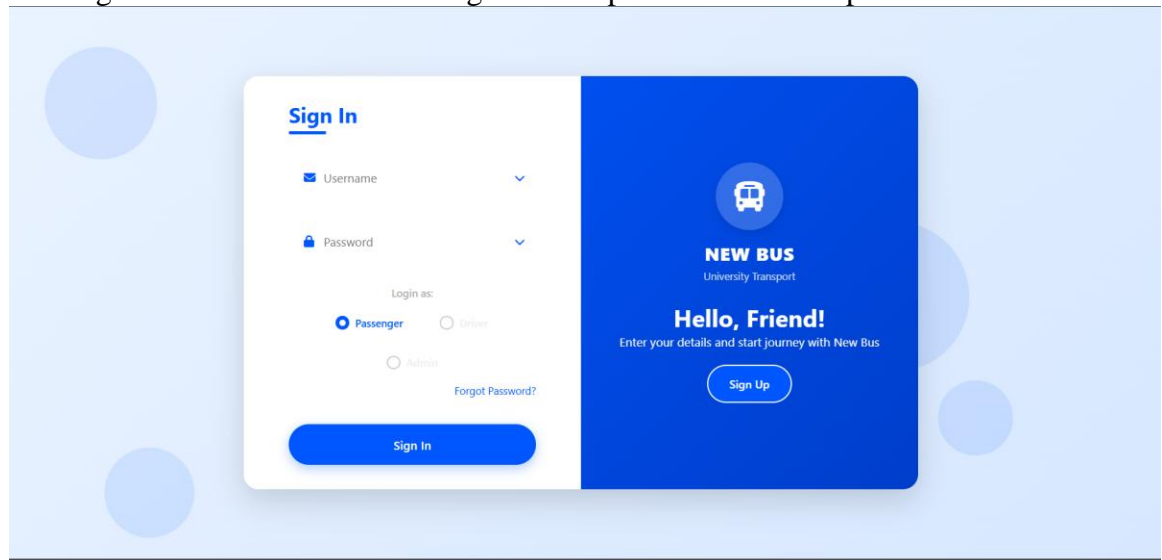
The system assigns different roles based on user requirements:

- **Passenger:** Can book trips, manage bookings, and receive updates.
- **Driver:** Access trip schedules, update statuses, and receive route notifications.
- **Administrator:** Full control over system operations including managing resources and users.

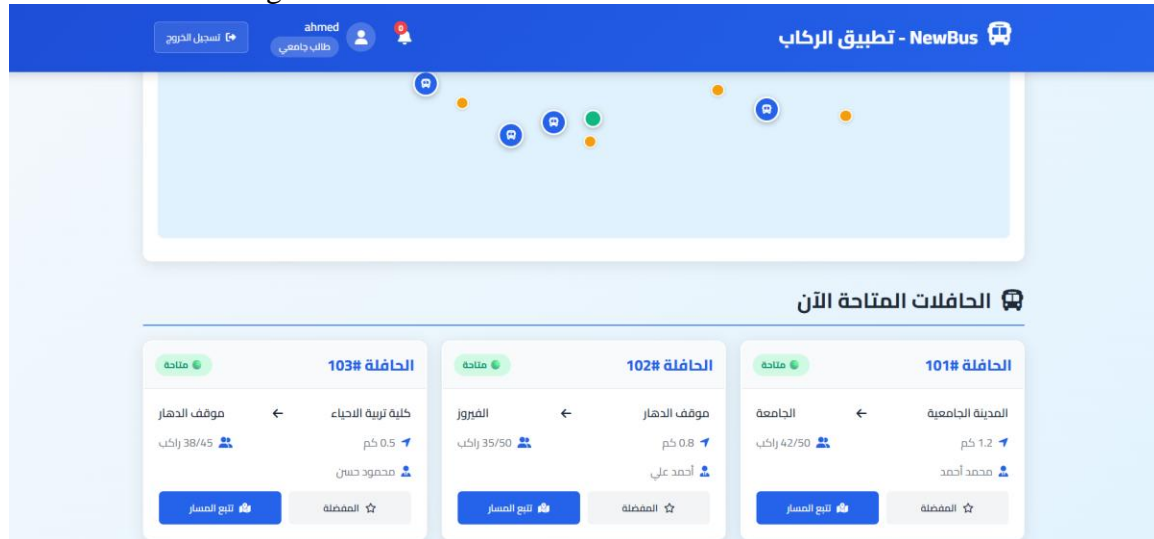
System Walkthrough (Main Scenario)

1. Login / Sign Up (Passenger)

Passenger creates an account and logs into the portal to book a trip.

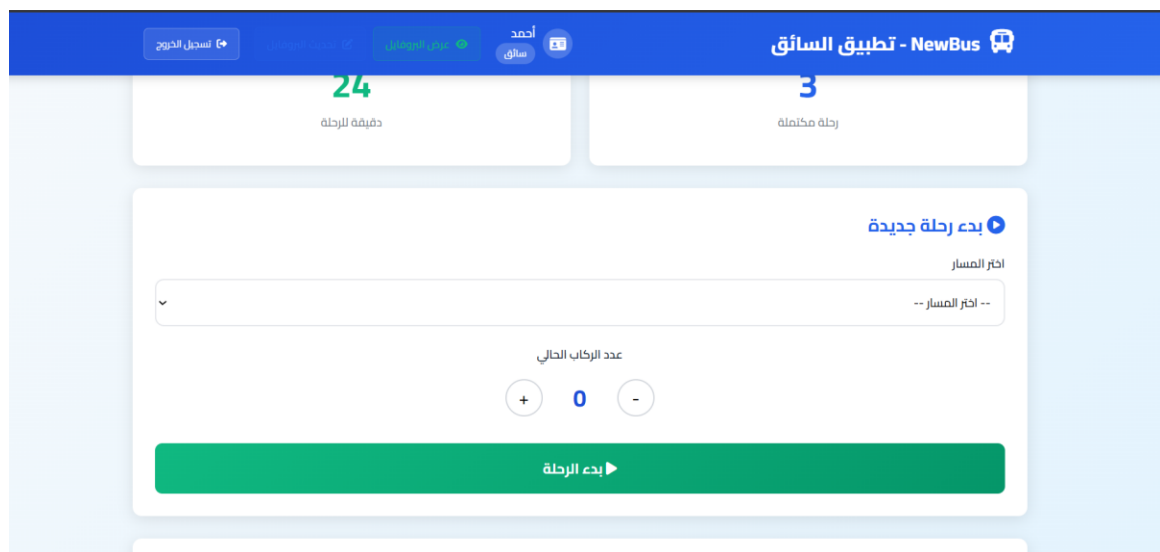


2.Trip Selection (Passenger): Passenger selects a trip from the available options and confirms the booking.



3.Driver Dashboard

Driver logs in to receive assigned trip updates and monitor schedules.



4.Admin Dashboard

Administrator logs into the management dashboard to oversee all system operations.

The screenshot displays the NewBus Admin Dashboard. At the top, a blue header bar contains the text "NewBus - لوحة التحكم" and a bus icon. Below the header, there are four white cards showing system statistics: "5 رحلة اليوم" (5 trips today), "3 حافلة نشطة" (3 active buses), "1 سائق نشط" (1 active driver), and "1 راكب مسجل" (1 registered passenger). Below these cards, there are two sections for user management. The first section, "إدارة الركاب" (Manage Passengers), has a search bar and a table with columns: الاسم الكامل (Full Name), البريد الإلكتروني (Email), رقم الهاتف (Phone Number), المستوى الدراسي (Educational Level), الكلية (College), الحالة (Status), and الإجراءات (Actions). The table contains one entry for "ahmed" with email "dd@gmail.com" and phone "01012345678", status "نشط" (Active), and educational level "غير محدد" (Not specified). The second section, "إدارة السائقين" (Manage Drivers), also has a search bar and a table with columns: الاسم الأول (First Name), البريد الإلكتروني (Email), رقم الهاتف (Phone Number), اسم المستخدم (Username), رقم الحافلة (Bus Number), الحالة (Status), and الإجراءات (Actions). The table contains one entry for "ahmeda" with email "d@gmail.com" and phone "01012345678", status "نشط" (Active), and username "Ahmed".

الاسم الكامل	البريد الإلكتروني	رقم الهاتف	المستوى الدراسي	الكلية	الحالة	الإجراءات
ahmed	dd@gmail.com	01012345678	غير محدد	غير محدد	نشط	تعديل حذف

الاسم الأول	البريد الإلكتروني	رقم الهاتف	اسم المستخدم	رقم الحافلة	الحالة	الإجراءات
ahmeda	d@gmail.com	01012345678	Ahmed	غير معين	نشط	تعديل حذف

8. Conclusion

The New Bus System represents a significant advancement in optimizing public transport services. Through effective implementation and utilization, passengers will gain better accessibility, drivers will benefit from improved routing efficiency, and administrators will find enhanced control over operational workflows.