

# Bus Pass Management System

## 1. Introduction

The Bus Pass Management System is an Android-based mobile application designed to allow users to register, log in, deposit virtual balance, view bus routes, and purchase bus passes. This project is developed for academic purposes and does not involve real monetary transactions.

## 2. Objectives

- 1 Provide user registration and login functionality
- 2 Allow users to deposit virtual balance
- 3 Display static bus routes with fare and seat availability
- 4 Enable users to purchase bus passes
- 5 Store and retrieve data using SQLite database

## 3. Technologies Used

- 1 Android Studio
- 2 Java
- 3 XML
- 4 SQLite Database

## 4. System Architecture

The system follows a simple architecture consisting of user interface activities, business logic handled in Java activities, and persistent data storage using SQLite via DBHelper.

## 5. Functional Modules

- 1 User Registration Module
- 2 User Login Module
- 3 Balance Deposit Module
- 4 Bus Routes Viewing Module
- 5 Bus Pass Purchase Module
- 6 My Passes Module

## 6. Database Design

The application uses SQLite database with three tables: Users, Routes, and Passes. CRUD operations are implemented to manage persistent data.

## **7. Conclusion**

This project successfully demonstrates the use of Android components, SQLite database, and backend logic in a mobile application. It is suitable for academic submission and viva.

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Email

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Password

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**REGISTER**

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Email

Password



ahmad@gmail.com

...



Manage passwords

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DEPOSIT



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10:24 AM 🔍 🔍 🔍

Wi-Fi Vo LTE 279 B/S 🔋 92

Welcome, shah221242@gmail.com

Balance: 150

**DEPOSIT**

**VIEW ROUTES**

**MY PASSES**

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Wi-Fi Vo LTE 2.80 K/S 🔋 92

City B 'n City C | Fare: 150 | Seats: 3 | Fare:  
150

City A 'n City B | Fare: 200 | Seats: 4 | Fare:  
200

City of El Paso, Texas