User Guide for Bus Ticket Management System

Introduction

Welcome to the Bus Ticket Management System! This program allows users to book tickets, view schedules, and manage employee access. Follow this guide to navigate the system effectively.

Main Menu

When you start the program, you will see the **Main Menu:**

```
╔══════════════════════════════════════════╗
║         WELCOME TO BUS COMPANY            ║
╠══════════════════════════════════════════╣
║              MAIN MENU                    ║
╠══════════════════════════════════════════╣
║  1. Book Ticket                          ║
║  2. View Schedule                        ║
║  3. Employee Login                       ║
║  4. Quit                                 ║
╚══════════════════════════════════════════╝
Please select an option (1-4):
```

Options:

1. **Book Ticket:** Select this option to book a ticket for a passenger.
2. **View Schedule:** View the current bus schedules and departure times.
3. **Employee Login:** Log in as an employee (Admin or Driver) to access additional features.
4. **Quit:** Exit the program.

Option 1: Book Ticket

This will bring you to the passenger login menu

Options:

1. Login as a passenger. The initial passenger's login information is:
Username: robert.smith@gmail.com
Password: password

2. Sign up for a new account
3. Buy a ticket as a guest
4. Return to main menu

Option 2: View Schedule

1. Select 2 from the Main Menu
2. The program will display the current bus schedules, including departure times and routes.

```
Available Schedules:
#1 - Morning
Route: Downtown
Start Time: 08:30
Departure Times: 08:50, 09:00, 09:50, 10:00, 10:50
Stops:
  - Main St & 6th St
  - Broadway & 6th St
  - Hill St & 6th St
  - Olive St & 6th St
  - Figueroa St & 6th St
```

Option 3: Employee Login

1. Select 3 from the Main Menu.
2. Enter your employee credentials (username and password).
3. Depending on your access level:
   - **Admin**: Access the Admin Menu to manage buses, depots, schedules, and employees. To access the admin menu:
     Username: JohnDoe@buscompany.com
        Password: password

```
Employee Login
Username: JohnDoe@buscompany.com
Password: password
Access Granted: Admin Menu

┌────────────────────────────────────────┐
│          ADMINISTRATOR MENU            │
├────────────────────────────────────────┤
│   1. Bus Management                    │
│   2. Schedule Management               │
│   3. Route Management                  │
│   4. Depot Management                  │
│   5. Employee Management               │
│   6. Accounting                        │
│   7. Return to Main Menu               │
└────────────────────────────────────────┘
Please select an option (1-7): |
```

- **Driver**: Access the Driver Menu to view assigned routes and schedules. To access the driver menu:
  Username: LaurenSmith@buscompany.com
  Password: password

```
Employee Login
Username: LaurenSmith@buscompany.com
Password: password
Access Granted: Driver Menu

    ┌──────────────────────────────────────┐
    │              DRIVER MENU             │
    ├──────────────────────────────────────┤
    │  1. View Schedule                    │
    │  2. View Bus Information             │
    │  3. View Route Information           │
    │  4. Return to Main Menu             │
    └──────────────────────────────────────┘
Please select an option (1-4): |
```

Admin Menu

1. Bus Management - Add, Manage, Remove and Display buses. Bus IDs are integers. The initial Bus IDs are 1000 and 1001

```
        ┌──────────────────────────────────────┐
        │          BUS MANAGEMENT MENU         │
        ├──────────────────────────────────────┤
        │  1. Add a new bus                    │
        │  2. Manage an existing bus           │
        │  3. Display all buses                │
        │  4. Return to Administrator Menu     │
        └──────────────────────────────────────┘
Please select an option (1-4):
```

2. Schedule Management – Add, Remove, Manage, and Display Schedules. Schedule names are strings. The initial schedule's name is Morning.

```
================================================
    SCHEDULE MANAGEMENT MENU
------------------------------------------------
  1. Add a new schedule
  2. Remove an existing schedule
  3. Manage an existing schedule
  4. Display all schedules
  5. Return to Administrator Menu
================================================
Please select an option (1-5):
```

3. Route Management – Add, Manage, Remove, and Disply Routes. Manage Route assignments. Route IDs are strings. The initial Route Ids are R-1000 and R-1001.

```
================================================
    ROUTE MANAGEMENT MENU
------------------------------------------------
  1. Add a new route
  2. Manage an existing route
  3. Display all Routes
  4. Manage route assignment
  5. Return to Administrator Menu
================================================
Please select an option (1-5):
```
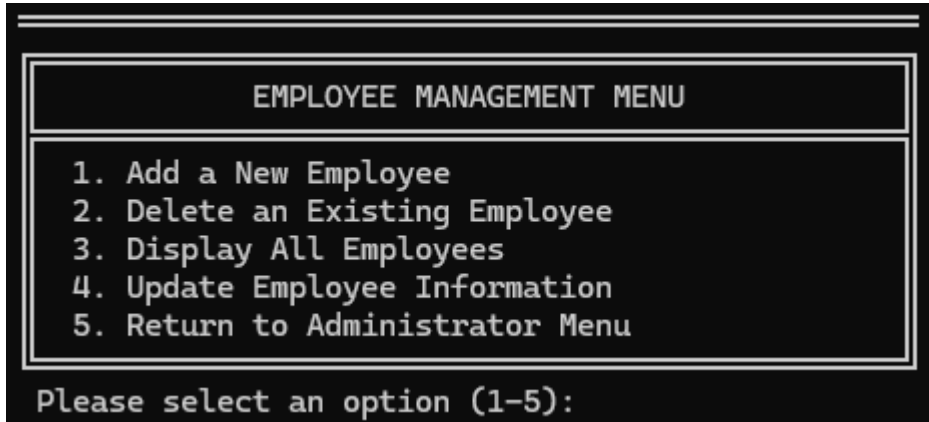
4. Depot Management – Add, Delete and display Depots. Assign and unassign   buses from depots. Depot Ids are integers. The initial depot IDs are 1000 and 1001.

```
================================================
    DEPOT MANAGEMENT MENU
------------------------------------------------
  1. Add a new depot
  2. Delete an existing depot
  3. Assign a bus to a depot
  4. Unassign a bus from a depot
  5. Display all depots
  6. Return to Administrator Menu
================================================
Please select an option (1-6):
```

5. Employee Management – Add, delete, update, and display employees. Employee IDs are strings. The initial IDs are A-1000, D-1000, and D-1001.
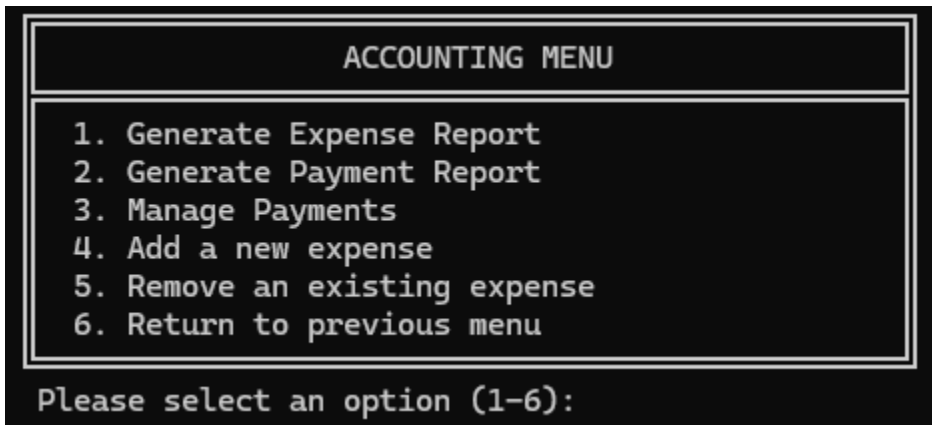
```
================================
  ┌──────────────────────────────────────┐
  │        EMPLOYEE MANAGEMENT MENU        │
  ├──────────────────────────────────────┤
  │  1. Add a New Employee                 │
  │  2. Delete an Existing Employee        │
  │  3. Display All Employees              │
  │  4. Update Employee Information         │
  │  5. Return to Administrator Menu        │
  └──────────────────────────────────────┘
 Please select an option (1-5):
```

6. Accounting – Generate expense report, generate payment report, manage payments, add expenses, and remove expenses. Expense IDs are integers. The initial expense IDs are 1000, 1001, and 1002. Payment IDs are integers. The initial payment ID is 1000.

```
  ┌──────────────────────────────────────┐
  │            ACCOUNTING MENU             │
  ├──────────────────────────────────────┤
  │  1. Generate Expense Report            │
  │  2. Generate Payment Report            │
  │  3. Manage Payments                    │
  │  4. Add a new expense                  │
  │  5. Remove an existing expense         │
  │  6. Return to previous menu            │
  └──────────────────────────────────────┘
 Please select an option (1-6):
```
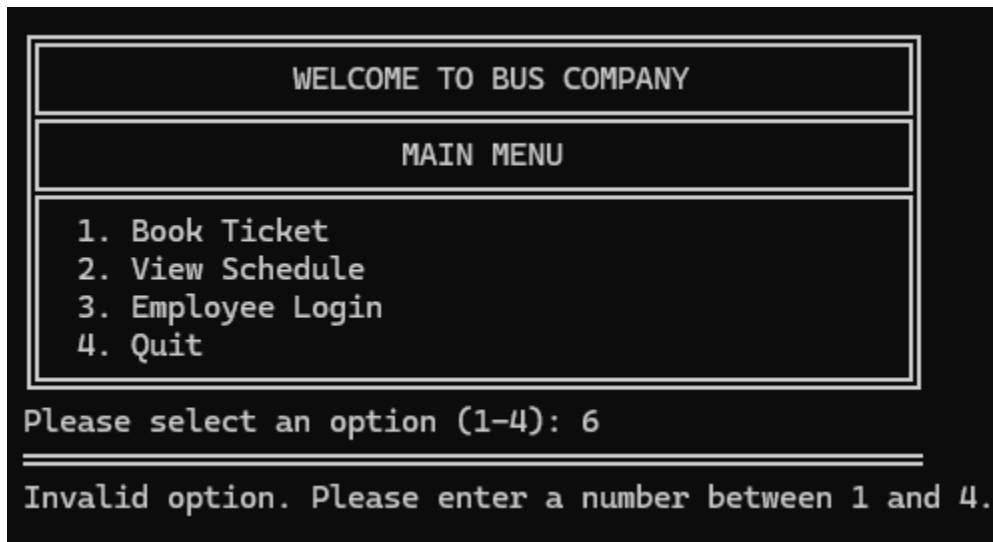
Option 4: Quit

1. Select **4** from the Main Menu.
2. The program will display a goodbye message and exit

Error Handling

- If you enter an invalid option, the program will prompt you to enter a valid number between 1 and 4.
- Ensure all inputs are entered correctly to avoid errors.

```
WELCOME TO BUS COMPANY

MAIN MENU

1. Book Ticket
2. View Schedule
3. Employee Login
4. Quit

Please select an option (1-4): 6

Invalid option. Please enter a number between 1 and 4.
```

Additional Notes

- The program initializes with preloaded data, such as routes, schedules, and employees.
- Admins can manage buses, depots, routes, employees, expenses, payments and schedules through the Admin Menu.
- Drivers can view their assigned routes and schedules through the Driver Menu.