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| Project Name: Public Transportation Optimization | | | Test Designed By: Sazid-Al-Abedin | |
| Test Case ID: FR\_U1 | | | Test Designed Date: 17/12/2024 | |
| Test Priority (Low, Medium, High): High | | | Test Executed By: | |
| Module Name: User Login | | | Test Execution Date: | |
| Test Title: Verify login with valid username and password | | | | |
| Description: Test user login functionality with valid credentials | | | | |
| Precondition (if any): User has valid email and password | | | | |
| Test Steps | Test Data | Expected Results | Actual Results | Status  (Pass / Fail) |
| 1. Go to the login page | Username: user@gmail.com | Login page should load successfully |  |  |
| 1. Enter valid email and password | Password: User@123 | User should be allowed to submit the form |
| 1. Click the login button |  | User should be logged in |
| 1. Validate redirection after login |  | User is redirected to the home page |
| Post Condition: User is logged in successfully, and session details are created. | | | | |

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| Project Name: Public Transportation Optimization | | | Test Designed By: Sazid-Al-Abedin | |
| Test Case ID: FR\_U2 | | | Test Designed Date: 17/12/2024 | |
| Test Priority (Low, Medium, High): High | | | Test Executed By: | |
| Module Name: User Registration | | | Test Execution Date: | |
| Test Title: Verify user registration with valid input data | | | | |
| Description: Test new user registration functionality in the application | | | | |
| Precondition (if any): None | | | | |
| Test Steps | Test Data | Expected Results | Actual Results | Status  (Pass / Fail) |
| 1. Go to the registration page |  | Registration page should load successfully |  |  |
| 1. Enter valid registration information | Name: Wyan Bruce Email: [bruce@gmail.com](mailto:bruce@gmail.com)  Password: Bruce@1 | System accepts user input |
| 1. Click submit |  | Confirmation email is sent to user |
| 1. Verify the confirmation email | Email: Confirmation link | Account is successfully verified |
| 1. Attempt to log in with new credentials | Username:  [bruce@gmail.com](mailto:bruce@gmail.com)  Password: Bruce@1 | User should successfully log in |
| Post Condition: User account is created, verified, and functional for login. | | | | |

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| Project Name: Public Transport Optimization | | | Test Designed By:  Md. Sadman Hossain | |
| Test Case ID: FR\_U3 | | | Test Designed Date: 12/25/2024 | |
| Test Priority (Low, Medium, High): High | | | Test Executed By: | |
| Module Name: Route Search | | | Test Execution Date: | |
| Test Title: Verify bus route search functionality | | | | |
| Description: Test the "From-To" route search feature | | | | |
| Precondition (if any): User is logged in | | | | |
| Test Steps | Test Data | Expected Results | Actual Results | Status  (Pass / Fail) |
| 1. Input "From" and "To" locations | From : A  To : B | System displays available routes |  |  |
| 1. Select a route | Route: Option 1 | Selected route details are displayed |
| Post Condition: User can search and view bus routes. | | | | |

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| Project Name: Public Transport Optimization | | | Test Designed By:  Md. Sadman Hossain | |
| Test Case ID: FR\_U4 | | | Test Designed Date: 12/25/2024 | |
| Test Priority (Low, Medium, High): | | | Test Executed By: | |
| Module Name: Live Bus Tracking | | | Test Execution Date: | |
| Test Title: Verify real-time bus tracking functionality | | | | |
| Description: Test the ability to track buses in real time | | | | |
| Precondition (if any): User has searched for a route | | | | |
| Test Steps | Test Data | Expected Results | Actual Results | Status  (Pass / Fail) |
| 1. Search and select a bus route | Route: A → B | Route details page opens |  |  |
| 1. Enable live tracking |  | Real-time bus locations are shown on a map |
| 1. Check Estimated Time Arrival (ETA) updates |  | ETA update dynamically |
| Post Condition: Real-time location and ETA are displayed for the selected route | | | | |

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| Project Name: Public Transport Optimization | | | Test Designed By: Md. Saiduzzaman Sohag | |
| Test Case ID: FR\_U5 | | | Test Designed Date: 12/25/2024 | |
| Test Priority (Low, Medium, High): Medium | | | Test Executed By: | |
| Module Name: Bus Information | | | Test Execution Date: | |
| Test Title: Verify detailed bus information display | | | | |
| Description: Test that users can view detailed bus information | | | | |
| Precondition (if any): User has accessed route information | | | | |
| Test Steps | Test Data | Expected Results | Actual Results | Status  (Pass / Fail) |
| 1. Search for a route | Route: A → B | Route details are displayed |  |  |
| 1. Tap on a bus | Bus: Option 1 | Bus capacity and location details |
| Post Condition: Users can view detailed bus information. | | | | |

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| Project Name: Public Transport Optimization | | | Test Designed By: Md. Saiduzzaman Sohag | |
| Test Case ID: FR\_U6 | | | Test Designed Date: 12/25/2024 | |
| Test Priority (Low, Medium, High): High | | | Test Executed By: | |
| Module Name: Ticket Purchase | | | Test Execution Date: | |
| Test Title: Verify secure ticket purchase functionality | | | | |
| Description: Test that users can securely purchase tickets | | | | |
| Precondition (if any): User is logged in and has selected a route | | | | |
| Test Steps | Test Data | Expected Results | Actual Results | Status  (Pass / Fail) |
| 1. Select a route | Route: A → B | Route details are displayed |  |  |
| 1. Go to the purchase page |  | Payment page loads |
| 1. Select a payment method and pay | Method: MFS(bKash, Rocket etc) | Payment successfully |
| Post Condition: Ticket is purchased, and a QR code is issued. | | | | |

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| Project Name: | | | Test Designed By:  Nouroze Tarannum Anannya | |
| Test Case ID: FR\_U7 | | | Test Designed Date:  12/25/2024 | |
| Test Priority (Low, Medium, High): | | | Test Executed By: | |
| Module Name: Save Payment Option | | | Test Execution Date: | |
| Test Title: Verify the functionality to save payment information | | | | |
| Description: Test that users can save their payment details to enable smoother future payments | | | | |
| Precondition (if any): User has made at least one payment using any payment method | | | | |
| Test Steps | Test Data | Expected Results | Actual Results | Status  (Pass / Fail) |
| 1. Initiate a ticket purchase process | Route: A → B, Payment Method: MFS(bKash,Rocket etc) | Payment page is displayed |  |  |
| 1. Enter payment details and enable "Save" | Phone Number: 01611252799 | Option to save payment details appears |
| 1. Complete payment | Payment Amount: 40tk | Payment is successfully processed |
| 1. Verify payment details saved |  | System confirms payment details saved |
| 1. Complete payment using saved details |  | Payment is processed with one tap |
| Post Condition: User's payment information is saved securely and can be used for future payments with one tap. | | | | |

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| Project Name: | | | Test Designed By:  Nouroze Tarannum Anannya | |
| Test Case ID: FR\_U8 | | | Test Designed Date:  12/25/2024 | |
| Test Priority (Low, Medium, High): | | | Test Executed By: | |
| Module Name: Live Notifications | | | Test Execution Date: | |
| Test Title: Verify live notifications functionality | | | | |
| Description: Test push notifications for real-time bus updates | | | | |
| Precondition (if any): User has enabled notifications | | | | |
| Test Steps | Test Data | Expected Results | Actual Results | Status  (Pass / Fail) |
| 1. Enable notifications in settings |  | Notifications enabled successfully |  |  |
| 1. Track a bus route | Route: A → B | User receives notifications for ETAs |
| Post Condition: Notifications are sent based on real-time updates. | | | | |

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| Project Name: Public Transport Optimization | | | Test Designed By:  Seemanta Torafdar | |
| Test Case ID: FR\_U9 | | | Test Designed Date:  17-12-2024 | |
| Test Priority (Low, Medium, High): Medium | | | Test Executed By: | |
| Module Name: User Profile Management | | | Test Execution Date: | |
| Test Title: Verify user profile management functionality | | | | |
| Description: Test that users can view and edit their personal information and view their purchase history | | | | |
| Precondition (if any): User is logged in | | | | |
| Test Steps | Test Data | Expected Results | Actual Results | Status  (Pass / Fail) |
| 1. Go to the "Profile" page |  | Profile page is displayed |  |  |
| 1. View personal information |  | User details (name, email, phone, etc.) are displayed correctly |
| 1. Edit personal information | Name: John Doe → John D., Phone: 1234567890 | Updated information is saved and reflected |  |  |
| 1. Verify purchase history |  | Verify purchase history |
| 1. Attempt invalid updates | Email: invalid. Email | System displays an error message |
| Post Condition: User's personal information is updated successfully, and purchase history is displayed correctly. | | | | |

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| Project Name: Public Transport Optimization | | | Test Designed By:  Seemanta Torafdar | |
| Test Case ID: FR\_U10 | | | Test Designed Date:  17-12-2024 | |
| Test Priority (Low, Medium, High): High | | | Test Executed By: | |
| Module Name: Show Ticket Info | | | Test Execution Date: | |
| Test Title: Verify ticket details and PDF generation | | | | |
| Description: Test that purchased tickets are displayed and downloadable | | | | |
| Precondition (if any): User has purchased a ticket | | | | |
| Test Steps | Test Data | Expected Results | Actual Results | Status  (Pass / Fail) |
| 1. Go to "My Tickets" section |  | Purchased ticket details are displayed |  |  |
| 1. Download ticket as PDF |  | Ticket PDF is downloaded successfully |
| Post Condition: Ticket details are shown and downloadable. | | | | |

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| Project Name: Public Transport Optimization | | | Test Designed By:  Sazid-Al-Abedin | |
| Test Case ID: FR\_M1 | | | Test Designed Date:  17-12-2024 | |
| Test Priority (Low, Medium, High): High | | | Test Executed By: | |
| Module Name: Bus AuthorityRegistration and Validation | | | Test Execution Date: | |
| Test Title: Verify Bus Authority registration and validation functionality | | | | |
| Description: Ensure the system allows Bus Authority to register and validates their details through BRTC and NID databases. | | | | |
| Precondition (if any): None | | | | |
| Test Steps | Test Data | Expected Results | Actual Results | Status  (Pass / Fail) |
| 1. Go to the bus authority registration page |  | Registration page is displayed |  |  |
| 1. Enter valid National ID (NID) and details | NID: 1234567890, Name: John ,  Contact: 01736365742 | System accepts the details and validates through BRTC/NID database |
| 1. Submit registration |  | Registration is completed successfully |
| 1. Enter invalid NID or incomplete details | NID: invalid | System shows error message: "Invalid NID or incomplete details" |
| Post Condition: The Bus Authority registration details are validated and stored in the system. | | | | |

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| Project Name: Public Transport Optimization | | | Test Designed By:  Md. Sadman Hossain | |
| Test Case ID: FR\_M2 | | | Test Designed Date:  17-12-2024 | |
| Test Priority (Low, Medium, High): High | | | Test Executed By: | |
| Module Name: Employee Management | | | Test Execution Date: | |
| Test Title: Verify the functionality to manage employees | | | | |
| Description: Ensure Bus Authority can add, update, and delete employees. | | | | |
| Precondition (if any): Bus Authority is logged in | | | | |
| Test Steps | Test Data | Expected Results | Actual Results | Status  (Pass / Fail) |
| 1. Go to employee management page |  | Employee management page is displayed |  |  |
| 1. Add a new employee | Name: Jane Doe, Role: Driver, Password: 12345 | Employee is added successfully |
| 1. Update employee details | Name: Jane Doe → Jane D. | Details updated successfully |
| 1. Delete an employee | Employee ID: 001 | Employees are deleted successfully |
| 1. Attempt unauthorized password change | Employee ID: 001, Attempted by another user | System shows error: "Unauthorized action" |
| Post Condition:Employees are added, updated, and removed successfully, with restrictions in place. | | | | |

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| Project Name: Public Transport Optimization | | | Test Designed By:  Nouroze Tarannum Anannya | |
| Test Case ID: FR\_M4 | | | Test Designed Date:  17-12-2024 | |
| Test Priority (Low, Medium, High): High | | | Test Executed By: | |
| Module Name: Employee Ticket Verification and Bus Information | | | Test Execution Date: | |
| Test Title: Verify employee ticket scanning and route information access | | | | |
| Description: Ensure employees can log in, verify tickets, and access route and passenger information. | | | | |
| Precondition (if any): Employee is logged in | | | | |
| Test Steps | Test Data | Expected Results | Actual Results | Status  (Pass / Fail) |
| 1. Log in as an employee | Username: employee1, Password: emp123 | Employees logs in successfully |  |  |
| 1. Scan a valid ticket | Ticket QR Code: valid | Employee is added successfully |
| 1. Scan an invalid/expired ticket | Ticket QR Code: invalid456 | System shows error: "Invalid/Expired Ticket" |
| 1. View route details | Bus Route: A → B | Route details are displayed |
| 1. Access passenger details | Passenger Name: John Doe, Contact: 123456789 | Passenger information is displayed |
| Post Condition:Employee can scan tickets, view passenger details, and access route information. | | | | |

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| Project Name: Public Transport Optimization | | | Test Designed By:  Seemanta Torafdar | |
| Test Case ID: FR\_M5 | | | Test Designed Date:  17-12-2024 | |
| Test Priority (Low, Medium, High): High | | | Test Executed By: | |
| Module Name: Passenger Check-in and Check-out Verification | | | Test Execution Date: | |
| Test Title: Verify passenger check-in and check-out functionality | | | | |
| Description: Ensure passengers are checked in and out properly, with additional charges applied for unverified journeys. | | | | |
| Precondition (if any): Employee has scanned the ticket when a passenger gets in | | | | |
| Test Steps | Test Data | Expected Results | Actual Results | Status  (Pass / Fail) |
| 1. Scan ticket for check-in | Ticket QR Code: checkin123 | Passenger is checked in successfully |  |  |
| 1. Scan ticket for check-out | Ticket QR Code: checkout123 | Passenger is checked out successfully |
| 1. Skip check-out | Ticket QR Code: skip123 | Additional charge is applied |
| 1. Attempt check-in with invalid ticket | Ticket QR Code: invalid123 | System shows error: "Invalid Ticket" |
| Post Condition:Passengers are checked in and out successfully, and additional charges are applied for skipped check-outs. | | | | |

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| Project Name: Public Transport Optimization | | | Test Designed By:  Md. Saiduzzaman Sohag | |
| Test Case ID: FR\_M6 | | | Test Designed Date:  17-12-2024 | |
| Test Priority (Low, Medium, High): High | | | Test Executed By: | |
| Module Name: Real-Time Bus Vacancy and Seat Availability | | | Test Execution Date: | |
| Test Title: Verify real-time updates for bus vacancy and seat availability | | | | |
| Description: Ensure the system updates and displays bus occupancy and available seats in real time. | | | | |
| Precondition (if any): Bus is operating and has passengers | | | | |
| Test Steps | Test Data | Expected Results | Actual Results | Status  (Pass / Fail) |
| 1. View bus occupancy | Bus ID: 12345 | Bus occupancy and seat availability are displayed |  |  |
| 1. Bus reaches full capacity |  | System shows message: "Bus is Full" |
| Post Condition:Real-time updates for bus occupancy and seat availability as expected. | | | | |

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| Project Name: Public Transport Optimization | | | Test Designed By:  Md. Saiduzzaman Sohag | |
| Test Case ID: FR\_M7 | | | Test Designed Date:  17-12-2024 | |
| Test Priority (Low, Medium, High): Medium | | | Test Executed By: | |
| Module Name: Bus Authority Financial Overview and Reporting | | | Test Execution Date: | |
| Test Title: Verify financial report generation and export functionality | | | | |
| Description: Ensure bus owners can view daily earnings and generate/export reports. | | | | |
| Precondition (if any): Bus Authority is logged in | | | | |
| Test Steps | Test Data | Expected Results | Actual Results | Status  (Pass / Fail) |
| 1. Navigate to financial overview page | Bus ID: 12345 | Financial overview page is displayed |  |  |
| 1. View daily earnings |  | Daily earnings are displayed correctly |
| 1. Generate a report | Date Range: 01/12/2024 - 05/12/2024 | Report is generated successfully |  |  |
| 1. Export report to PDF |  | Report is exported successfully |
| 1. Attempt export with no data | Date Range: 01/01/1900 - 01/01/1900 | System shows error: "No data available" |
| Post Condition:Bus Authority can view and export financial data for further analysis. | | | | |