Performance testing
User Acceptance Testing (UAT)

Date	**17 April 2025**
Team ID	**SWTID1743955267**
Project Title:	**RideEase**
Maximum Marks	**10 Marks**

Project Overview

- **Project Name:** RideEase Cab Booking Platform
- **Project Description:** A comprehensive, full-stack MERN (MongoDB, Express.js, React.js, Node.js) web application designed for online cab booking supporting JWT Authentication and MongoDB Atlas integration. The system accommodates three distinct user roles (Admin, Driver, Rider), providing an intuitive user experience that includes location-based ride booking, fare estimation, real-time driver tracking, ride history, payment processing, and personalized user profiles.
- **Project Version:** 1.0.0
- **Testing Period:** April 14, 2025 – April 23, 2025

Testing Scope

Features and Functionalities to be Tested:

- JWT-based user authentication and session management
- Role-based access control and authorization
- Location search and ride booking flow
- Dynamic fare calculation based on distance and cab type
- Real-time driver tracking and ETA updates
- Ride history and receipt generation
- Payment method integration and processing
- Driver-rider matching algorithm
- Admin dashboard for monitoring system metrics
- Data flow validation between client, server, and MongoDB Atlas
- Responsive design compatibility across devices and browsers

User Stories to be Validated:

- Users can securely authenticate and maintain session via JWT.

- Riders can search locations and book rides with fare estimates.
- Riders can track assigned drivers in real-time.
- Riders can view ride history and download receipts.
- Drivers can accept/reject ride requests.
- Drivers can update their availability status.
- Admins can monitor platform metrics and manage users.
- Riders can add multiple payment methods.
- All user flows comply with functional and UI/UX design expectations.

Testing Environment

- **Deployment URL:** https://localhost:3000
- **Tech Stack:** React.js (frontend), Express.js & Node.js (backend), MongoDB Atlas (database), JWT (auth), Google Maps API (location services)
- **Credentials (if required):**
    - Admin: admin@rideease.com / Admin@123
    - Rider: rider@rideease.com / Rider@123
    - Driver: driver@rideease.com / Driver@123

Test Cases

Test Case ID	Test Scenario	Test Steps	Expected Result	Actual Result	Pass/Fail
TC-001	JWT Authentication	1. Navigate to login page 2. Enter valid credentials 3. Submit form	User is redirected to dashboard with correct role access	[To be filled]	[To be filled]
TC-002	Ride Booking	1. Log in as rider 2. Enter pickup and drop-off locations 3. View fare estimate 4. Confirm booking	Ride is booked and driver search begins	[To be filled]	[To be filled]
TC-003	Driver Assignment	1. Book a ride as rider 2. Wait for driver assignment	Nearby driver is assigned and notification is sent	[To be filled]	[To be filled]
TC-004	Real-time Tracking	1. Book a ride 2. Navigate to tracking screen	Driver location is displayed and updates in real-time	[To be filled]	[To be filled]
TC-005	Payment Processing	1. Complete a ride 2. Select payment method 3. Confirm payment	Payment is processed and receipt is generated	[To be filled]	[To be filled]

Test Case ID	Test Scenario	Test Steps	Expected Result	Actual Result	Pass/Fail
TC-006	Ride History	1. Log in as rider 2. Navigate to "Ride History" section	Past rides are displayed with details	[To be filled]	[To be filled]
TC-007	Driver Availability	1. Log in as driver 2. Toggle availability status	Status is updated and driver appears/disappears from available pool	[To be filled]	[To be filled]
TC-008	Admin Dashboard	1. Log in as admin 2. Navigate to dashboard	System metrics and user management options are displayed	[To be filled]	[To be filled]

Bug Tracking

Bug ID	Bug Description	Steps to Reproduce	Severity	Status	Additional Feedback
BG-001	Driver location updates delayed	1. Book a ride 2. Track driver 3. Compare with actual position	High	Open	WebSocket connection issue
BG-002	Fare calculation inaccurate for long routes	1. Book a ride with long distance 2. Compare with manual calculation	Medium	In Progress	Algorithm needs optimization for distances > 20km
BG-003	Payment confirmation email not sending	1. Complete a ride 2. Make payment 3. Check email	Low	Open	SMTP configuration issue

Sign-Off

- **Tester Name:** [Insert Name]
- **Date of Test Completion:** [Insert Date]
- **Signature:** [Insert Digital Signature or Initials]

Notes:

- Ensure that all test cases cover both positive and negative scenarios.
- Encourage testers to provide detailed feedback, including any suggestions for improvement.
- Bug tracking should include details such as severity, status, and steps to reproduce.
- Obtain sign-off from both the project manager and product owner before proceeding with deployment.
- Test across multiple devices and browsers to ensure responsive design works correctly.
- Pay special attention to location accuracy and real-time tracking features.