



## INTERNAL PROJECT

### Software Requirements Specification

# SASA RIDE

Version: 2.0

Date: 2025-10-24

Status: Active

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# 1 Document Information

| Field           | Value              |
|-----------------|--------------------|
| Project Name    | SASA RIDE          |
| Version         | 2.0                |
| Date            | 2025-10-24         |
| Project Manager | Kelvin             |
| Tech Lead       | Ezekiel            |
| Qa Lead         | Tumaini            |
| Platforms       | ['Android', 'iOS'] |
| Document Status | Active             |



## 2 Project Overview

### 2.1 What Are We Building

#### 2.1.1 System Function

A comprehensive ride-hailing mobile application that connects passengers with drivers in Tanzania, featuring AI-powered assistance through 'Eve AI', supporting immediate rides, scheduled trips, and package delivery services

#### 2.1.2 Users

- Passengers (requesting rides)
- Drivers (providing transportation services)
- Admins (platform management)
- Eve AI (intelligent assistant)

#### 2.1.3 Problem Solved

Provides convenient, safe, and reliable ride-hailing and delivery services in Tanzania through a digital platform with AI assistance, localized features, and comprehensive driver verification

#### 2.1.4 Key Success Metric

1000+ active riders and 200+ verified drivers within 3 months of launch with 95%+ ride completion rate

## 2.2 Scope

#### 2.2.1 In Scope

- AI assistant (Eve AI) for user guidance and support
- Ride booking (immediate, scheduled, and delivery)
- Real-time location services and GPS tracking
- Driver onboarding with NIDA and license verification
- User authentication and profile management
- Multi-language support (English, Swahili, Spanish)

- Rating and feedback system
- Ride history and search
- Promotions and offers management
- Dark mode support
- Push notifications

### 2.2.2 Out Of Scope

- Corporate fleet management (Phase 1)
- International operations outside Tanzania
- Ride-sharing (multiple passengers)
- Advanced driver analytics dashboard
- In-app entertainment features
- Vehicle maintenance tracking



## 3 User Requirements

### 3.1 Authentication User Management

| Feature Code   | I Want To                            | So That I Can                          | Priority | Notes  |
|----------------|--------------------------------------|--|----------|--|
| FT-AUTH-REG    | Register using phone number or email | Create an account and book rides       | Must     | Phone verification required with Tanzania country code |
| FT-AUTH-LOGIN  | Log into my account securely         | Access my profile and book rides       | Must     | Support biometric authentication                       |
| FT-AUTH-LOGOUT | Log out of the app                   | Protect my account when sharing device | Must     | Clear all session data                                 |
| FT-AUTH-RESET  | Reset my password via OTP            | Recover access to my account           | Must     | SMS verification for password reset                    |

### 3.2 Core Business Features

| Feature Code    | I Want To                      | So That I Can  | Priority | Notes  |
|-----------------|--------------------------------|--|----------|--|
| FT-AI-ASSISTANT | Interact with Eve AI assistant | Get help with ride booking, driver application, and app guidance | Must     | Natural language chatbot with pre-defined prompts and conversation history |
| FT-RIDE-REQUEST | Request an immediate ride      | Get transportation to  | Must     | Interactive map for pickup and   |

| Feature Code         | I Want To                                       | So That I Can                                | Priority | Notes  |
|----------------------|---|--|----------|--|
|                      |   | my destination now                           |          | destination selection  |
| FT-RIDE-SCHEDULE     | Schedule a ride for future date/time            | Plan my transportation in advance            | Must     | Date and time picker for future bookings                                 |
| FT-DELIVERY-SERVICE  | Send packages or items using Sasa Send          | Deliver items without traveling myself       | Must     | Package delivery service within service areas                            |
| FT-LOCATION-SERVICES | Use GPS and map features for location selection | Accurately set pickup and drop-off locations | Must     | OpenStreetMap integration with address search and manual selection       |
| FT-DRIVER-APPLY      | Apply to become a driver through the app        | Start earning by providing rides             | Must     | Complete driver registration with NIDA, license, and selfie verification |

### 3.3 Additional Features

| Feature Code        | I Want To  | So That I Can   | Priority | Notes  |
|---------------------|--|---|----------|--|
| FT-RIDE-HISTORY     | View and search my past rides  | Track my ride history and expenses                        | Should   | Search by location with filter options   |
| FT-PROMOTIONS       | View and manage promotional offers   | Take advantage of discounts and special deals             | Should   | Active and expired offers tabs   |
| FT-PROFILE-SETTINGS | Edit my profile information and app preferences (language, theme, personal info) | Keep my information current and personalize my experience | Should   | Include name, gender, phone, email, avatar, rating display, language selection, dark |

| Feature Code     | I Want To                                    | So That I Can   | Priority | Notes                                       |
|------------------|--|---|----------|---|
|                  |  |   |          | mode, account deletion                      |
| FT-RATING-SYSTEM | Rate drivers and provide feedback            | Share my experience and help maintain service quality | Should   | Star rating system with user rating display |
| FT-NOTIFICATIONS | Receive push notifications about ride status | Stay informed about my rides and offers               | Should   | Notification preferences in settings        |



## 4 Detailed Feature Requirements

### 4.1 Ft Auth Reg

#### 4.1.1 Priority

Must Have

#### 4.1.2 User Story

As a new user, I want to create an account using my phone number or email so that I can book rides through SASA RIDE

#### 4.1.3 Preconditions

User downloads app, opens registration screen, has valid phone number (+255) or email

#### 4.1.4 Postconditions

Account created, verification sent, user can log in and access features

#### 4.1.5 Test Cases

| Id          | Description   | Weight |
|-------------|---|--------|
| AUTH-TC-001 | Verify user can register successfully using valid email (e.g., claudeai2025@gmail.com) and password | High   |
| AUTH-TC-002 | Verify user can register successfully using valid international phone number (e.g., +255628630936)  | High   |
| AUTH-TC-003 | Verify system shows error for invalid phone/email formats   | High   |

| Id          | Description   | Weight |
|-------------|---|--------|
|             | and validates international phone number formats                  |        |
| AUTH-TC-004 | Verify password requirements are enforced (min 6 characters)      | Medium |
| AUTH-TC-005 | Verify duplicate registration prevention with clear error message | High   |

## 4.2 Ft Auth Login

### 4.2.1 Priority

Must Have

### 4.2.2 User Story

As a returning user, I want to log into my account so that I can access my profile and book rides

### 4.2.3 Preconditions

User has existing account, opens app, navigates to login screen

### 4.2.4 Postconditions

User authenticated, redirected to home screen with ride options

### 4.2.5 Test Cases

| Id          | Description   | Weight |
|-------------|---|--------|
| AUTH-TC-006 | Verify successful login with correct email (claudeai2025@gmail.com) or phone number (+255628630936) | High   |
| AUTH-TC-007 | Verify appropriate error message for invalid credentials  | High   |



| Id          | Description                                  | Weight |
|-------------|--|--------|
| AUTH-TC-008 | Verify successful logout clears session data | High   |

## 4.3 Ft Ai Assistant

### 4.3.1 Priority

Must Have

### 4.3.2 User Story

As a user, I want to interact with Eve AI to get assistance with booking rides, becoming a driver, and understanding app features

### 4.3.3 Preconditions

User is logged in and accesses Eve AI from the app interface

### 4.3.4 Postconditions

User receives helpful responses and can complete tasks through AI guidance

### 4.3.5 Test Cases

| Id        | Description  | Weight |
|-----------|--|--------|
| AI-TC-001 | Verify Eve AI displays welcome message 'How can I help you today?' with snowflake-style icon | High   |
| AI-TC-002 | Verify AI responds appropriately to 'Hi there' quick action button                           | High   |
| AI-TC-003 | Verify AI can guide user through ride request with 'Can you help me request a ride' prompt   | High   |

| Id        | Description   | Weight |
|-----------|---|--------|
| AI-TC-004 | Verify AI provides accurate driver information with 'How to become a driver' prompt                             | High   |
| AI-TC-005 | Verify AI explains capabilities with 'What can you do?' prompt  | High   |
| AI-TC-006 | Verify AI can help schedule rides with 'Schedule a ride for me' prompt  | High   |
| AI-TC-007 | Verify text input field with 'Enter Prompt' placeholder accepts user input send button works for custom prompts | Medium |
| AI-TC-008 | Verify conversation history search works with 'Search history...' functionality                                 | Medium |
| AI-TC-009 | Verify 'New Chat' button starts fresh conversation  | Medium |
| AI-TC-010 | Verify empty state shows 'Nothing found - No conversations found' when no history                               | Low    |
| AI-TC-011 | Verify Eve AI is accessible from blue assistant button on map interface   | Medium |

## 4.4 Ft Ride Request

### 4.4.1 Priority

Must Have

### 4.4.2 User Story

As a passenger, I want to request an immediate ride so that I can get transportation to my destination

### 4.4.3 Preconditions

User is logged in, has location permission enabled, is in service area

### 4.4.4 Postconditions

Ride request sent to nearby drivers, user sees confirmation and driver details

### 4.4.5 Test Cases

| Id          | Description   | Weight |
|-------------|---|--------|
| RIDE-TC-001 | Verify user can select pickup location using GPS (auto-detects current location like Njiro Rd)                  | High   |
| RIDE-TC-002 | Verify user can search and select pickup location by address using search functionality                         | High   |
| RIDE-TC-003 | Verify user can manually select location on interactive map with pin placement                                  | High   |
| RIDE-TC-004 | Verify three booking modes are available: 'Let's Ride' (immediate), 'Schedule' (future), 'Sasa Send' (delivery) | High   |
| RIDE-TC-005 | Verify 'Let's Ride' option initiates immediate ride booking flow  | High   |
| RIDE-TC-006 | Verify interactive map shows current location with proper markers and controls                                  | High   |
| RIDE-TC-007 | Verify location services permission prompt appears when accessing location features                             | High   |
| RIDE-TC-008 |   | Medium |

| Id | Description  | Weight |
|----|--|--------|
|    | Verify edit destination capability works after initial selection |        |

## 4.5 Ft Ride Schedule

### 4.5.1 Priority

Must Have

### 4.5.2 User Story

As a user, I want to schedule a ride for a future date and time so that I can plan my transportation in advance

### 4.5.3 Preconditions

User is logged in and accesses the schedule ride option

### 4.5.4 Postconditions

Ride scheduled successfully, user receives confirmation with booking details

### 4.5.5 Test Cases

| Id           | Description  | Weight |
|--------------|--|--------|
| SCHED-TC-001 | Verify 'Schedule' option is accessible from main ride booking screen among the three booking modes | High   |
| SCHED-TC-002 | Verify date picker allows selection of future dates only (no past dates selectable)                | High   |
| SCHED-TC-003 | Verify time picker works correctly for scheduling rides in 12-hour format                          | High   |

| Id           | Description  | Weight |
|--------------|--|--------|
| SCHED-TC-004 | Verify scheduled ride appears in My Rides section with PENDING status          | Medium |
| SCHED-TC-005 | Verify user receives reminder notification before scheduled ride time          | Medium |
| SCHED-TC-006 | Verify Eve AI can help schedule rides with 'Schedule a ride for me' prompt     | Medium |
| SCHED-TC-007 | Verify scheduled rides display date and time in format 'Oct 24, 2025 12:48 PM' | Medium |

## 4.6 Ft Delivery Service

### 4.6.1 Priority

Must Have

### 4.6.2 User Story

As a user, I want to use Sasa Send to deliver packages so that items can be transported without me traveling

### 4.6.3 Preconditions

User is logged in and selects Sasa Send option

### 4.6.4 Postconditions

Delivery request created, driver assigned, package delivered to destination

### 4.6.5 Test Cases

| Id         | Description | Weight |
|------------|-------------|--------|
| DEL-TC-001 |             | High   |

| Id         | Description  | Weight |
|------------|--|--------|
|            | Verify 'Sasa Send' option is accessible as third booking mode from main ride interface                     |        |
| DEL-TC-002 | Verify pickup and drop-off locations can be set for package delivery using same location selection methods | High   |
| DEL-TC-003 | Verify package details can be entered (size, weight, description, special instructions)                    | Medium |
| DEL-TC-004 | Verify delivery pricing is calculated and displayed in TSh (e.g., Tsh 600)                                 | High   |
| DEL-TC-005 | Verify delivery orders generate unique order IDs (e.g., ORD-BQFXSD format)                                 | High   |

## 4.7 Ft Location Services

### 4.7.1 Priority

Must Have

### 4.7.2 User Story

As a user, I want to use GPS and map features so that I can accurately select my pickup and destination locations

### 4.7.3 Preconditions

User has granted location permissions to the app

### 4.7.4 Postconditions

Accurate location data captured, map displays correctly with nearby landmarks

## 4.7.5 Test Cases

| Id         | Description  | Weight |
|------------|--|--------|
| LOC-TC-001 | Verify GPS automatically detects current location (e.g., Njiro Rd, Arusha)                           | High   |
| LOC-TC-002 | Verify map displays Tanzania areas accurately (Arusha, Njiro Rd, Jambiani locations)                 | High   |
| LOC-TC-003 | Verify address search functionality with 'Pick your destination' returns Tanzania locations          | High   |
| LOC-TC-004 | Verify manual map pin placement works with blue (current), green (pickup), orange (destination) pins | High   |
| LOC-TC-005 | Verify location permission prompt appears for GPS and map features                                   | High   |
| LOC-TC-006 | Verify location icons show correctly for different place types (residence, hotel, etc.)              | Medium |

## 4.8 Ft Driver Apply

### 4.8.1 Priority

Must Have

### 4.8.2 User Story

As a potential driver, I want to apply through the app so that I can start earning by providing rides

### 4.8.3 Preconditions

User has app installed and accesses driver application section

## 4.8.4 Postconditions

Complete driver application submitted with all required documents for verification

## 4.8.5 Test Cases

| Id         | Description   | Weight |
|------------|---|--------|
| DRV-TC-001 | Verify 'Become a Driver' option is accessible from profile side menu                                      | High   |
| DRV-TC-002 | Verify driver type selection dropdown works correctly (various vehicle types)                             | Medium |
| DRV-TC-003 | Verify personal details fields accept valid input (name, address, international phone number format)      | High   |
| DRV-TC-004 | Verify NIDA (National ID) number field validates Tanzanian ID format correctly for Tanzania-based drivers | High   |
| DRV-TC-005 | Verify NIDA document upload supports front and back photo capture/upload                                  | High   |
| DRV-TC-006 | Verify driver's license number field accepts valid license format for the operating region                | High   |
| DRV-TC-007 | Verify license document upload supports front and back photo capture/upload                               | High   |
| DRV-TC-008 | Verify selfie camera capture works for driver identity verification                                       | High   |
| DRV-TC-009 | Verify submit button is disabled until all required   | Medium |



| Id         | Description  | Weight |
|------------|--|--------|
|            | NIDA, license, and selfie documents are uploaded   |        |
| DRV-TC-010 | Verify application submission confirmation displays with verification timeline                   | High   |
| DRV-TC-011 | Verify Eve AI provides accurate driver application guidance with 'How to become a driver' prompt | Medium |

## 4.9 Ft Ride History

### 4.9.1 Priority

Should Have

### 4.9.2 User Story

As a user, I want to view and search my past rides so that I can track my ride history and expenses

### 4.9.3 Preconditions

User is logged in and has completed at least one ride

### 4.9.4 Postconditions

User can view, search, and filter ride history with complete details

### 4.9.5 Test Cases

| Id          | Description  | Weight |
|-------------|--|--------|
| HIST-TC-001 | Verify My Rides section is accessible from bottom navigation (location pin with dots icon) | High   |
| HIST-TC-002 |  | High   |

| Id          | Description  | Weight |
|-------------|--|--------|
|             | Verify ride history displays all past and current ride bookings                                  |        |
| HIST-TC-003 | Verify search functionality with 'Search rides by location...' placeholder finds rides           | Medium |
| HIST-TC-004 | Verify filter option with funnel icon provides filtering capabilities                            | Medium |
| HIST-TC-005 | Verify empty state displays appropriate message when no rides found                              | Low    |
| HIST-TC-006 | Verify ride cards display 'To: [Location]' and 'From: [Location]' format                         | High   |
| HIST-TC-007 | Verify date and time display in format 'Oct 24, 2025 12:48 PM'                                   | High   |
| HIST-TC-008 | Verify status badges show PENDING (yellow) and CANCELLED (red) correctly                         | High   |
| HIST-TC-009 | Verify example ride formats like 'To: Njiro Rd, From: Njiro Rd - Oct 24, 2025 12:48PM - PENDING' | Medium |

## 4.10 Ft Promotions

### 4.10.1 Priority

Should Have

### 4.10.2 User Story

As a user, I want to view and manage promotional offers so that I can take advantage of discounts and special deals

### 4.10.3 Preconditions

User is logged in and has access to promotions section

### 4.10.4 Postconditions

User can view active and expired offers, apply promo codes to rides

### 4.10.5 Test Cases

| Id           | Description  | Weight |
|--------------|--|--------|
| PROMO-TC-001 | Verify promotions section is accessible from profile settings or side menu   | Medium |
| PROMO-TC-002 | Verify 'Active' offers tab displays current promotions and deals             | High   |
| PROMO-TC-003 | Verify 'Expired' tab shows past promotions that are no longer valid          | Medium |
| PROMO-TC-004 | Verify empty state displays appropriate message when no promotions available | Low    |
| PROMO-TC-005 | Verify shopping bag icon displays correctly in offers section header         | Low    |
| PROMO-TC-006 | Verify promotional offers can be applied during ride booking process         | High   |
| PROMO-TC-007 | Verify offers section is available for both riders and potential drivers     | Medium |

## 4.11 Ft Profile Settings

### 4.11.1 Priority

Should Have

### 4.11.2 User Story

As a user, I want to manage my profile information, app preferences, and settings so that I can personalize my experience and keep my details current

### 4.11.3 Preconditions

User is logged in and navigates to profile section

### 4.11.4 Postconditions

Profile information and preferences updated successfully, settings persist across sessions

### 4.11.5 Test Cases

| Id          | Description  | Weight |
|-------------|--|--------|
| PROF-TC-001 | Verify user can edit full name field with edit icon functionality                              | High   |
| PROF-TC-002 | Verify gender selection includes 'Not specified' option with edit icon                         | Medium |
| PROF-TC-003 | Verify phone number displays in international format (e.g., +255628630936) but is display only | High   |
| PROF-TC-004 | Verify email address displays (claudeai2025@gmail.com) but is display only                     | High   |
| PROF-TC-005 | Verify profile avatar displays user initial (first letter of                                   | Low    |

| Id          | Description   | Weight |
|-------------|---|--------|
|             | username like 'U' for user42894)  |        |
| PROF-TC-006 | Verify username displays correctly (e.g., user42894)  | Medium |
| PROF-TC-007 | Verify user rating displays 0.0 with star icon for new users  | Low    |
| PROF-TC-008 | Verify 'My Account' status indicator displays correctly   | Medium |
| PROF-TC-009 | Verify Update button saves profile changes successfully   | High   |
| PROF-TC-010 | Verify profile settings include Personal Info, Dark Mode, Language, Notifications, Privacy Policy, Terms of Use, Logout   | High   |
| PROF-TC-011 | Verify language selection option is available and app interface switches to selected language (English, Swahili, Spanish) | High   |
| PROF-TC-012 | Verify language preference persists after app restart and logout/login  | Medium |
| PROF-TC-013 | Verify all UI elements display correctly in all supported languages   | High   |
| PROF-TC-014 | Verify Dark Mode toggle option switches between light and dark themes   | High   |
| PROF-TC-015 | Verify dark mode preference is saved and persists across sessions   | Medium |
| PROF-TC-016 |   | High   |

| Id          | Description  | Weight |
|-------------|--|--------|
|             | Verify all UI elements maintain proper contrast and readability in both themes |        |
| PROF-TC-017 | Verify Delete Account option is displayed in red with confirmation dialog      | High   |

## 4.12 Ft Notifications

### 4.12.1 Priority

Should Have

### 4.12.2 User Story

As a user, I want to receive push notifications about ride status so that I stay informed about my rides and offers

### 4.12.3 Preconditions

User has granted notification permissions

### 4.12.4 Postconditions

User receives timely notifications for ride updates and can manage preferences

### 4.12.5 Test Cases

| Id           | Description  | Weight |
|--------------|--|--------|
| NOTIF-TC-001 | Verify notification permission prompt and ride status notifications delivery                 | High   |
| NOTIF-TC-002 | Verify notification toggle (Enabled/Disabled) in profile settings controls all notifications | High   |

| Id           | Description   | Weight |
|--------------|---|--------|
| NOTIF-TC-003 | Verify promotional notifications delivered when enabled | Medium |

## 4.13 Ft Vehicle Selection

### 4.13.1 Priority

Must Have

### 4.13.2 User Story

As a passenger, I want to choose from different vehicle types so that I can select the most suitable transport for my needs

### 4.13.3 Preconditions

User has selected pickup and destination locations

### 4.13.4 Postconditions

User can view vehicle options with pricing and ETA, then confirm booking

### 4.13.5 Test Cases

| Id         | Description   | Weight |
|------------|---|--------|
| VEH-TC-001 | Verify all vehicle types display correctly: Sasa (Car), Bajaj (Three-wheeler), Boda (Motorcycle) with price (500 TSh) and ETA | High   |
| VEH-TC-002 | Verify Special Hire section shows VIP Motorcade, Coaster, Last Ride with regional filtering and plate search                  | Medium |
| VEH-TC-003 |   | High   |

| Id | Description  | Weight |
|----|--|--------|
|    | Verify Request button (green) is enabled after vehicle selection |        |

## 4.14 Ft Driver Matching

### 4.14.1 Priority

Must Have

### 4.14.2 User Story

As a passenger, I want to be matched with an available driver so that I can see driver details and communicate if needed

### 4.14.3 Preconditions

User has confirmed ride request and payment

### 4.14.4 Postconditions

Driver is matched, user can see driver info and track progress

### 4.14.5 Test Cases

| Id           | Description  | Weight |
|--------------|--|--------|
| MATCH-TC-001 | Verify 'Finding you a driver...' status and route display on map with pickup/destination                         | High   |
| MATCH-TC-002 | Verify driver information card shows name, rating (5.0 stars), profile picture, and trip details (ETA, duration) | High   |
| MATCH-TC-003 | Verify driver communication buttons (message, call) and  | High   |



| Id | Description                       | Weight |
|----|-----------------------------------|--------|
|    | Cancel Ride button work correctly |        |

## 4.15 Ft Ride Cancellation

### 4.15.1 Priority

Must Have

### 4.15.2 User Story

As a user, I want to cancel my ride with a reason so that I can provide feedback and avoid unnecessary charges

### 4.15.3 Preconditions

User has an active ride booking

### 4.15.4 Postconditions

Ride is cancelled, reason is recorded, appropriate refund is processed

### 4.15.5 Test Cases

| Id            | Description  | Weight |
|---------------|--|--------|
| CANCEL-TC-001 | Verify all cancellation reasons available: 'Driver asked me to cancel', 'Driver is taking too long', 'Driver is not moving', 'I changed my mind', 'Booked by mistake', 'Other' | High   |
| CANCEL-TC-002 | Verify radio button selection, feedback message, and Confirm Cancellation button (red) process cancellation  | High   |
| CANCEL-TC-003 |  | High   |

| Id | Description  | Weight |
|----|--|--------|
|    | Verify cancelled ride shows CANCELLED status in ride history |        |

## 4.16 Ft Order Management

### 4.16.1 Priority

Must Have

### 4.16.2 User Story

As a user, I want to track and manage my delivery orders so that I can monitor package delivery status

### 4.16.3 Preconditions

User has placed a Sasa Send delivery order

### 4.16.4 Postconditions

Order status is tracked and updated, user can communicate with customer

### 4.16.5 Test Cases

| Id           | Description   | Weight |
|--------------|---|--------|
| ORDER-TC-001 | Verify order details display: ID (ORD-BQFXSD), status (Pending), date/time, customer info, and total amount (Tsh 600) | High   |
| ORDER-TC-002 | Verify customer communication (phone with call button) and order type ('Pickup Order' in green)                       | High   |
| ORDER-TC-003 | Verify Mark Delivered button (green) works and delivery status tracking   | High   |

## 4.17 Ft Navigation Ui

### 4.17.1 Priority

Must Have

### 4.17.2 User Story

As a user, I want intuitive navigation throughout the app so that I can easily access all features

### 4.17.3 Preconditions

User has logged into the app

### 4.17.4 Postconditions

User can navigate between all major sections seamlessly

### 4.17.5 Test Cases

| Id         | Description   | Weight |
|------------|---|--------|
| NAV-TC-001 | Verify bottom navigation tabs are accessible: Home (house icon), My Rides (location pin with dots), Profile (person icon) | High   |
| NAV-TC-002 | Verify active tabs show green indicator and navigation works correctly  | Medium |
| NAV-TC-003 | Verify each tab shows appropriate content: Home (ride booking), My Rides (history), Profile (settings)                    | High   |

## 4.18 Ft Map Interaction

### 4.18.1 Priority

Must Have

### 4.18.2 User Story

As a user, I want to interact with the map to select locations and track rides so that I can visualize my journey

### 4.18.3 Preconditions

User has location permissions enabled

### 4.18.4 Postconditions

Map displays accurately with proper markers and controls

### 4.18.5 Test Cases

| Id         | Description  | Weight |
|------------|--|--------|
| MAP-TC-001 | Verify map displays with correct pins: blue (current location), green (pickup), orange (destination) and blue route line | High   |
| MAP-TC-002 | Verify map controls work: zoom, center location button (green), AI assistant button (blue), menu button (hamburger)      | Medium |
| MAP-TC-003 | Verify map displays Tanzania locations accurately  | High   |

## 4.19 Ft Recent Locations

### 4.19.1 Priority

Should Have

### 4.19.2 User Story

As a user, I want quick access to recently used locations so that I can book rides faster

### 4.19.3 Preconditions

User has previously used locations in the app

### 4.19.4 Postconditions

Recent locations are saved and easily selectable

### 4.19.5 Test Cases

| Id            | Description   | Weight |
|---------------|---|--------|
| RECENT-TC-001 | Verify recent locations list shows previously used destinations with correct icons (residence, hotel, etc.) | High   |
| RECENT-TC-002 | Verify automatic saving and edit capability for recent destinations   | Medium |

## 4.20 Ft Payment Display

### 4.20.1 Priority

Must Have

### 4.20.2 User Story

As a user, I want to see clear pricing information so that I know the cost before booking

### 4.20.3 Preconditions

User is viewing vehicle selection or order details

### 4.20.4 Postconditions

Pricing is displayed clearly in Tanzanian Shillings

### 4.20.5 Test Cases

| Id         | Description   | Weight |
|------------|---|--------|
| PAY-TC-001 | Verify pricing displays correctly: 500 TSh for vehicle types, total amount calculation, and currency format (TSh/Tsh) | High   |
| PAY-TC-002 | Verify payment status tracking shows Paid/Unpaid status correctly   | High   |

## 4.21 Ft Status Indicators

### 4.21.1 Priority

Should Have

### 4.21.2 User Story

As a user, I want clear visual indicators for different statuses so that I can quickly understand the state of my rides and orders

### 4.21.3 Preconditions

User is viewing rides, orders, or other status-dependent information

### 4.21.4 Postconditions

Status indicators are clearly visible and color-coded appropriately

## 4.21.5 Test Cases

| Id            | Description  | Weight |
|---------------|--|--------|
| STATUS-TC-001 | Verify status indicators: PENDING (yellow/orange), CANCELLED (red), Paid (green), and are easily distinguishable | High   |
| STATUS-TC-002 | Verify color scheme follows app theme (Green primary, Blue secondary, Red alerts)                                | Medium |

## 4.22 Ft Profile Delete

### 4.22.1 Priority

Should Have

### 4.22.2 User Story

As a user, I want the option to delete my account so that I can remove my data if I no longer use the service

### 4.22.3 Preconditions

User is logged in and viewing profile settings

### 4.22.4 Postconditions

Account deletion option is available with appropriate warnings

### 4.22.5 Test Cases

| Id            | Description   | Weight |
|---------------|---|--------|
| DELETE-TC-001 | Verify Delete Account option (red) shows confirmation dialog with data deletion | High   |

| Id | Description                     | Weight |
|----|---------------------------------|--------|
|    | warning and cancellation option |        |

## 4.23 Ft Search Functionality

### 4.23.1 Priority

Should Have

### 4.23.2 User Story

As a user, I want to search through my rides and conversations so that I can quickly find specific information

### 4.23.3 Preconditions

User has ride history or conversation history

### 4.23.4 Postconditions

Search returns relevant results with proper filtering

### 4.23.5 Test Cases

| Id            | Description   | Weight |
|---------------|---|--------|
| SEARCH-TC-001 | Verify ride search works with 'Search rides by location...' placeholder and returns relevant results    | High   |
| SEARCH-TC-002 | Verify conversation history search works with 'Search history...' and shows empty state when no results | Medium |
| SEARCH-TC-003 | Verify filter option (funnel icon) works in ride search   | Medium |



## 5 Technical Requirements

### 5.1 Performance Standards

| Requirement                 | Target                     | How To Test   |
|-----------------------------|----------------------------|---|
| App loads in                | $\leq 3$ seconds           | Stopwatch testing on Samsung Galaxy A32 and iPhone 11 Pro Max |
| Map loads with location     | $\leq 2$ seconds           | Manual testing with different network speeds                  |
| GPS location acquisition    | $\leq 5$ seconds           | Testing in various Tanzania locations                         |
| AI response time            | $\leq 2$ seconds           | Testing Eve AI with various queries                           |
| Works with concurrent users | 1000+ concurrent           | Load testing with simulated users                             |
| Uptime                      | 99.5% or better            | Monitoring and alerting systems                               |
| Works offline               | Limited (cached data only) | Core features require internet connection                     |

### 5.2 Platform Requirements

| Platform | Minimum Version      | Target Version      | Notes  |
|----------|----------------------|---------------------|--|
| Android  | API 21 (Android 5.0) | API 34 (Android 14) | Tested on Samsung Galaxy A32, Google Play Store requirements |
| iOS      | iOS 12.0             | iOS 17.0+           | Tested on iPhone 11 Pro Max, App Store                       |

| Platform     | Minimum Version   | Target Version | Notes                        |
|--------------|-------------------|----------------|------------------------------|
|              |                   |                | guidelines compliance        |
| Web Browsers | N/A - Mobile only | N/A            | Future Phase 3 consideration |

## 5.3 Security Privacy

| Requirement           | Must Have | Implementation  |
|-----------------------|-----------|---|
| User data encryption  | True      | AES-256 encryption for PII data at rest and in transit    |
| Secure passwords      | True      | Min 8 characters, complexity requirements, bcrypt hashing |
| NIDA data protection  | True      | Secure storage and transmission of National ID documents  |
| Privacy compliance    | True      | GDPR + Tanzania Data Protection Act compliance            |
| Data backup           | True      | Automated daily backups with 30-day retention             |
| Location data privacy | True      | User consent required, data retention policies enforced   |
| Driver verification   | True      | NIDA and license verification before driver approval      |

## 6 External Dependencies

### 6.1 Third Party Services

| Service                        | What It Does  | Criticality | Backup Plan                            |
|--------------------------------|---|-------------|--|
| OpenStreetMap                  | Mapping services, location display, route visualization | Critical    | Google Maps API as fallback option     |
| Eve AI Platform                | Conversational AI assistant for user guidance           | Important   | Static help content and FAQs           |
| SMS Gateway                    | OTP delivery for authentication and verification        | Critical    | Email verification as secondary option |
| Firebase Push Notifications    | Real-time notifications for ride updates                | Important   | In-app notifications only              |
| Payment Gateway                | Mobile money and card payment processing                | Critical    | Cash payment option                    |
| NIDA Verification API          | Driver identity verification through National ID        | Critical    | Manual verification process            |
| Cloud Storage (AWS S3/Similar) | Document storage for NIDA, licenses, and photos         | Critical    | Multi-region replication               |
| AWS/Cloud Infrastructure       | App hosting, database, API services                     | Critical    | Multi-region deployment with failover  |

## 6.2 Device Requirements

| Feature             | Required | Optional | Notes  |
|---------------------|----------|----------|--|
| Camera              | True     | False    | Required for driver selfie and document uploads        |
| GPS/Location        | True     | False    | Essential for ride booking and tracking                |
| Push Notifications  | True     | False    | Ride updates, driver notifications, promotional offers |
| Biometrics          | False    | True     | Fingerprint/Face ID for convenient and secure login    |
| Internet Connection | True     | False    | Required for all core functionality (LTE/WiFi)         |



# 7 Release Planning

## 7.1 Development Phases

| Phase         | Features Included  | Timeline | Success Criteria   |
|---------------|--|----------|--|
| Phase 1 (MVP) | ['FT-AUTH-REG', 'FT-AUTH-LOGIN', 'FT-AUTH-LOGOUT', 'FT-AUTH-RESET', 'FT-RIDE-REQUEST', 'FT-LOCATION-SERVICES', 'FT-DRIVER-APPLY', 'FT-AI-ASSISTANT (basic)', 'FT-NOTIFICATIONS'] | 12 weeks | Core ride booking works end-to-end with driver matching    |
| Phase 2       | ['FT-RIDE-SCHEDULE', 'FT-DELIVERY-SERVICE', 'FT-RIDE-HISTORY', 'FT-RATING-SYSTEM', 'FT-AUTH-PROFILE', 'FT-PROMOTIONS', 'FT-AI-ASSISTANT (enhanced)']                             | 6 weeks  | Enhanced features for better user experience and retention |
| Phase 3       | ['FT-LANG-SELECT (Spanish addition)', 'FT-DARK-MODE', 'Advanced analytics', 'Corporate accounts', 'Multi-city expansion']  | 8 weeks  | Complete feature set for market expansion                  |

## 7.2 Release Checklist

- All 'Must Have' features working on Android and iOS
- Zero critical bugs (authentication, ride booking, location services)
- Performance tests passed (app load  $\leq 3s$ , map load  $\leq 2s$ )
- Security review completed (NIDA data protection, encryption audit)
- User acceptance testing with real drivers and passengers
- Google Play Store and Apple App Store approval received
- NIDA integration certified and functional
- Driver verification process tested and operational
- Eve AI responses validated for accuracy
- Privacy policy and terms of service accessible and compliant
- Multi-language support (English and Swahili) fully implemented
- Location services working accurately in Tanzania
- Customer support system operational



## 8 Risks Assumptions

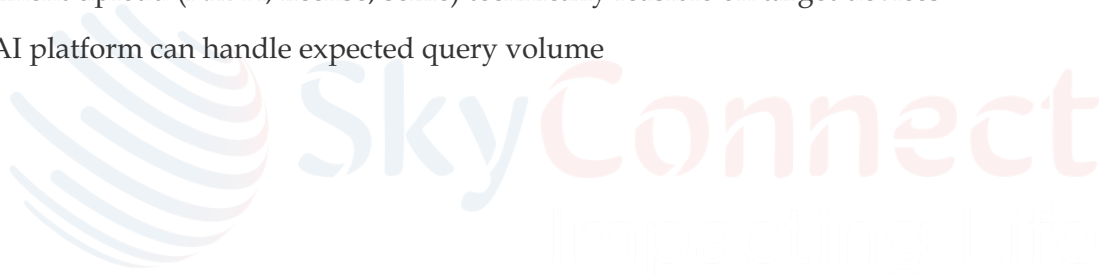
### 8.1 Risks

| Risk   | Probability | Impact | Mitigation   |
|--|-------------|--------|--|
| Driver onboarding slower than expected due to NIDA verification delays | Medium      | High   | Early driver recruitment, streamlined verification, manual fallback process          |
| NIDA API integration complexity or unavailability                      | Medium      | High   | Manual verification backup, early integration testing, government liaison            |
| Competition from Uber, Bolt, and local ride-hailing services           | High        | High   | Differentiate with Eve AI, local focus, competitive pricing, superior driver vetting |
| GPS accuracy issues in certain Tanzania locations                      | Medium      | Medium | Manual location adjustment, multiple map providers, address search                   |
| Eve AI response quality or availability issues                         | Low         | Medium | Static help content backup, FAQ section, human support escalation                    |
| Performance during peak hours in Dar es Salaam                         | Medium      | High   | Load testing, auto-scaling infrastructure, performance monitoring                    |
| Payment gateway integration for mobile money                           | Medium      | High   | Early integration, multiple provider   |

| Risk | Probability | Impact | Mitigation                      |
|------|-------------|--------|---------------------------------|
|      |             |        | options, cash<br>payment backup |

## 8.2 Assumptions

- Target market has sufficient smartphone penetration (75%+ in urban Tanzania)
- Drivers willing to undergo NIDA and license verification process
- NIDA API accessible and reliable for verification
- GPS/location services work adequately in major Tanzanian cities
- Internet infrastructure supports real-time ride tracking
- Users comfortable with AI assistant interaction
- Mobile money adoption sufficient for digital payments
- Regulatory environment favorable for ride-hailing services
- Document upload (NIDA, license, selfie) technically feasible on target devices
- Eve AI platform can handle expected query volume





## 9 Market Specific Considerations

### 9.1 Tanzania Ride Hailing Market

#### 9.1.1 Primary Market

- Dar es Salaam
- Arusha
- Mwanza
- Dodoma

#### 9.1.2 Target Demographics

- Urban professionals
- University students (e.g., Mwalimu Nyerere Campus)
- Tourists and visitors
- Business travelers
- Package senders

#### 9.1.3 Local Considerations

- Swahili language support (primary)
- English language support (secondary)
- Spanish language support (tourist markets)
- NIDA integration for driver verification
- +255 country code support
- Tanzania-specific locations (Ubungu, Salaam, etc.)
- Local payment methods preference
- Cultural expectations for driver-passenger interaction

### 9.1.4 Payment Preferences

| Preference   | Value |
|--------------|-------|
| Mobile Money | 80%   |
| Cash         | 40%   |
| Cards        | 20%   |

### 9.1.5 Competition

- Uber
- Bolt
- Little Cab
- Local taxi services
- Informal ride arrangements

### 9.1.6 Unique Value Propositions

- Eve AI assistant for enhanced user experience
- Comprehensive driver verification with NIDA
- Sasa Send delivery service
- Multi-language support including Swahili
- Focus on Tanzania-specific needs and locations

# 10 Sign Off

## 10.1 Approval

| Role | Name | Signature | Date |
|------|------|-----------|------|
|      |      |           |      |

## 10.2 Document History

| Version | Date       | Changes Made   | Changed By             |
|---------|------------|--|------------------------|
| 0.1     | 2025-08-15 | Initial draft created from SASA RIDE testing report  | Gemini System Designer |
| 2.0     | 2025-10-24 | Complete rewrite based on comprehensive feature documentation. Added Eve AI assistant, driver application with NIDA verification, Sasa Send delivery service, multi-language support (English/Swahili/Spanish), ride scheduling, location services, promotions, dark mode, and complete test coverage for all features. Updated to reflect Tanzania market specifics and | Claude AI Assistant    |

| Version | Date | Changes Made               | Changed By |
|---------|------|----------------------------|------------|
|         |      | OpenStreetMap integration. |            |



# 11 Additional Context

## 11.1 Success Metrics

### 11.1.1 Customer Acquisition

1000+ active riders within 3 months

### 11.1.2 Driver Onboarding

200+ verified drivers within 2 months

### 11.1.3 Daily Rides

300+ rides per day within 6 weeks of launch

### 11.1.4 Customer Satisfaction

≥ 4.5 star rating average

### 11.1.5 Ride Completion Rate

95%+ successful ride completion

### 11.1.6 Average Wait Time

Under 5 minutes for ride acceptance

### 11.1.7 Ai Engagement

60%+ users interact with Eve AI

### 11.1.8 Driver Verification Rate

100% of drivers NIDA verified before activation



## 11.2 Key Differentiators

### 11.2.1 Eve Ai

Intelligent conversational assistant for seamless user guidance

### 11.2.2 Driver Verification

Comprehensive NIDA and license verification for safety

### 11.2.3 Multi Service

Immediate rides, scheduled trips, and package delivery in one app

### 11.2.4 Localization

Built specifically for Tanzania with Swahili support and local integrations

### 11.2.5 User Experience

Clean, modern interface with dark mode and multi-language support

