Project Name	GPS Tracking System
Module Name	Real-Time Tracking
Created By	Ajay Sah
Created Date	25-Sep-2024
Project URL	
Peer Received By	Sagar

Test Case Id	Test Case Title	Test Case Description	Precondition	Steps	Test Data	Expected Result	Actual Result	Status
Test Case_RTT_001	Real-Time Trackig of Vehicle	Verify the real-time tracking of vehicle.	1. GPS device is installed in the vehicle. 2. The GPS tracking system is online. 3. Vehicle has started moving.	1. Login to the GPS tracking system. 2. Select the vehicle from the vehicle list. 3. Observe the map for real-time updates. 4. Verify speed, direction, and status.		Real-time location, speed, direction, and status should be updated on the map within seconds..		
Test Case_RTT_002	GPS Update	Verify the GPS update frequency.	1. GPS device is sending location data. 2. Vehicle is in motion.	1.Login to the GPS tracking System. 2. Access GPS tracking system. 3. Monitor the map for continuous updates. 4. Measure the interval of location updates.		GPS tracking system should update the location at the defined interval (e.g., every 5 seconds).		
Test Case_RTT_003	Vehicle's spped Display	Verify the vehicle's speed is displayed.	1. GPS system is active. 2. Vehicle is moving.	1.Login to GPS tracking System. 2. Access GPS tracking system. 3. Select a moving vehicle. 4. Observe and verify the displayed speed.		The speed of the vehicle should be displayed accurately based on the data from the GPS device.		
Test Case_RTT_004	Direction DIsplayed Correctly	Verify the direction is correctly displayed.	1. GPS tracking is active. 2. Vehicle is moving in a specific direction.	1.Login to GPS tracking system 1. Access the tracking system. 2. Select the vehicle. 3. Observe and verify the vehicle's direction on the map (e.g., North, South).		The system should show the correct direction in which the vehicle is moving.		
Test Case_RTT_005	Vehicle Status	Verify the status of vehicle.	1. GPS tracking system is active. 2. Vehicle is moving/stopped.	1. Login to the GPS system. 2. Select a vehicle. 3. Verify if the vehicle's status is correctly displayed as "Moving" or "Stopped".		Vehicle status should correctly update to "Moving" or "Stopped" based on real-time data.		

Project Name	GPS Tracking System
Module Name	Historical Trip
Created By	Ajay Sah
Created Date	25-Sep-2024
Project URL	
Peer Received By	Sagar

Test Case Id	Test Case Title	Test Case Description	Precondition	Steps	Expected Result	Actual Result	Status
Test Case_HT_001	Storage of Historical Trip Data	Verify the historical data is stored after a trip ends	1. The user is logged into the bus tracking system. 2. The bus trip has been completed.	1. Complete a bus trip 2. End the trip by clicking "End Trip" button 3. Go to the "Historical Data" section	Historical data for the trip should be stored and viewable under the "Historical Data" section		
Test Case_HT_002	Review of Past Routes	Verify the past routes can be reviewed from history	1. The user is logged into the system. 2. Historical trip data is available for previous trips.	1. Open the "Historical Data" section 2. Select a past date 3. Review the route displayed	Past routes for the selected date should be correctly displayed		
Test Case_HT_003	Accuracy of Historical Location Data	Verify the location data is accurate in the history	1. The user is logged into the system. 2. Historical trip data is available for selected trips.	1. Open the "Historical Data" section 2. Select a trip from the list 3. Review the locations at various timestamps	The location data should match the actual places visited during the trip		
Test Case_HT_004	Filtering of Historical Data by Date	Verify the ability to filter historical data by date	1. The user is logged into the system. 2. Historical trip data for multiple dates is available.	1. Go to the "Historical Data" section 2. Use the date filter to select a range of dates	The historical data should only display trips within the selected date range		
Test Case_HT_005	Downloading of Historical Data Report	Verify the user can download historical data report	1. The user is logged into the system. 2. Historical trip data is available. 3. A report download option is enabled.	1. Open the "Historical Data" section 2. Click "Download Report" button 3. Save the file locally	A report should be generated and successfully downloaded as an Excel or PDF file		

Project Name	GPS Tracking System
Module Name	Custom Maps
Created By	Ajay Sah
Created Date	25-Sep-2024
Project URL	
Peer Received By	Sagar

Test Case Id	Test Case Title	Test Case Description	Precondition	Steps	Priority	Expected Result	Actual Result	Status
Test Case_CMap_001	Add custom map provider	Verify that the user can successfully add a custom map provider in GPS Tracking System settings.	User is logged into GPS Tracking System with admin rights.	1. Log in to the GPS Tracking system. 2. Navigate to Settings > Maps. 3. Click "Add Custom Map Provider". 4. Enter the custom map provider's URL. 5. Save changes.	P0	The system successfully adds the custom map provider, and the map loads correctly.		
Test Case_CMap_002	Display custom map in UI	Verify that the custom map is displayed correctly in the user interface after integration.	Custom map provider has been successfully added to GPS Tracking System.	1. Log in to the system. 2. Navigate to the tracking dashboard. 3. Verify that the custom map is displayed instead of the default map. 4. Interact with the map (zoom in/out, drag).	P0	The custom map displays correctly and functions as expected (zooming, panning, etc.).		
Test Case_CMap_003	Switch between default and custom maps	Verify that the user can switch between the default map and custom map providers.	Both default and custom map providers are configured in GPS Tracking System..	1. Log in to the system. 2. Navigate to Settings > Maps. 3. Switch back to the default map. 4. Return to the tracking dashboard and verify the default map is shown. 5. Switch back to the custom map and verify.	P0	The user can switch seamlessly between the default and custom map providers, and both maps are displayed correctly.		
Test Case_CMap_004	Performance test with custom maps	Verify that the system's performance is not impacted by the integration of a custom map provider.	The custom map provider has been added and is currently active.	1. Log in to the system. 2. Ensure the custom map provider is selected. 3. Monitor the system's loading time and responsiveness while interacting with the map.	P0	The system performs optimally without any noticeable delay or lag when using the custom map.		
Test Case_CMap_005	Custom map zoom and pan functionality	Verify that the custom map supports zooming and panning functionalities as expected.	The custom map provider has been added and is currently active.	1. Open the GPS tracking dashboard with the custom map. 2. Use zoom in and zoom out features on the map. 3. Drag the map to pan across different areas. 4. Verify map responsiveness.	P0	The custom map responds correctly to zoom and pan actions, with smooth interactions and accurate map rendering.		
Test Case_CMap_006	Support for different map formats	Verify that Traccar supports integration with different map formats (e.g., satellite, terrain).	The system allows multiple map format selections for the custom ma	1. Log in to the system. 2. Add a custom map provider supporting a specific map format (e.g., satellite view). 3. Navigate to the dashboard. 4. Verify that the selected map format is displayed correctly.	P0	The custom map provider supports and displays the selected format accurately (e.g., satellite view).		
Test Case_CMap_007	Error handling for incorrect custom map URL	Verify that the system provides appropriate error messages when an incorrect custom map URL is entered.	User attempts to add a custom map provider with an incorrect URL.	1. Log in to the system. 2. Navigate to Settings > Maps. 3. Enter an incorrect URL for the custom map provider. 4. Attempt to save changes. 5. Verify the system's error handling.	P0	The system displays an appropriate error message (e.g., "Invalid URL") and prevents the incorrect map from being added.		

Project Name	GPS Tracking System
Module Name	Geofence
Created By	Ajay Sah
Created Date	25-Sep-2024
Project URL	
Peer Received By	Sagar

Test Case Id	Test Case Title	Test Case Description	Precondition	Steps	Priority	Expected Result	Actual Result	Status
Teat Case_GF_001	Geofencing Entry	Verify that the user is notified when the device enters the geofence.	Device must have GPS enabled. Geofencing boundaries must be set on the map.	1. Open the app. 2. Navigate to the geofence section. 3. Ensure that the geofence is set up. 4. Move the device into the geofence area. 5. Check for the notification.		A notification should be triggered when the device enters the geofence.		
Teat Case_GF_002	Geofencing Exit	Verify that the user is notified when the device exits the geofence.	Device must have GPS enabled. Geofencing boundaries must be set on the map.	1. Open the app. 2. Navigate to the geofence section. 3. Ensure that the geofence is set up. 4. Move the device out of the geofence area. 5. Check for the notification.		A notification should be triggered when the device exits the geofence.		
Teat Case_GF_003	Multiple Geofences	Verify that the user is notified when the device enters o exits multiple geofences.	Device must have GPS enabled. Multiple geofence boundaries must be set on the map.	1. Open the app. 2. Navigate to the geofence section. 3. Set up multiple geofences. 4. Move the device between geofences. 5. Check for notifications on entering and exiting geofences.		Notifications should be triggered appropriately for entering and exiting each geofence.		
Teat Case_GF_004	Notification Format	Verify that the notification for geofencing contains corre information (time, location, etc.).	Device must have GPS enabled. Geofencing boundariesc must be set on the map.	1. Open the app. 2. Navigate to the geofence section. 3. Enter or exit the geofence. 4. Check the notification details.		The notification should display the correct time and location of entry/exit.		
Teat Case_GF_005	Disable Geofence	Verify that no notification is sent when geofencing is disabled.	Geofencing must be initially enabled and then disabled.	1. Open the app. 2. Disable geofencing. 3. Move the device inside or outside the geofenced area. 4. Check for notifications.		No notification should be sent when geofencing is disabled.		

Project Name	GPS Tracking System
Module Name	Notifications
Created By	Ajay Sah
Created Date	25-Sep-2024
Project URL	
Peer Received By	Sagar

Test Case Id	Test Case Title	Test Case Description	Precondition	Steps	Priority	Expected Result	Actual Result	Status
Test Case_NOTIFY_001	Speeding alert via email	Verify that the system sends an email notification when the vehicle exceeds the speed limit.	User has email notifications enabled, vehicle is on the move	1. Log in to the GPS tracking system. 2. Set a speed limit threshold. 3. Start driving the vehicle above the speed limit.	P0	The system sends an email notification to the registered user when the vehicle exceeds the speed limit.		
Test Case_NOTIFY_002	Speeding alert via mobile app	Verify that the system sends a push notification to the mobile app when the speed limit is exceeded.	User has the mobile app installed, and app notifications enabled	1. Open the GPS tracking mobile app. 2. Set a speed limit. 3. Start driving the vehicle above the speed limit.	P0	The system sends a push notification to the mobile app when the vehicle exceeds the speed limit.		
Test Case_NOTIFY_003	Geofence violation via SMS	Verify that the system sends an SMS notification when the vehicle moves outside the geofence boundary.	User has SMS notifications enabled, a geofence is set up	1. Log in to the GPS tracking system. 2. Define a geofence boundary. 3. Move the vehicle outside the defined geofence area.	P1	The system sends an SMS notification to the registered phone number when the vehicle violates the geofence.		
Test Case_NOTIFY_004	Geofence violation via email	Verify that the system sends an email notification when the vehicle moves outside the geofence boundary.	User has email notifications enabled, a geofence is set up	1. Log in to the GPS tracking system. 2. Define a geofence. 3. Move the vehicle outside the defined geofence area.	P0	The system sends an email notification to the user when the geofence is violated.		
Test Case_NOTIFY_005	Failure to receive SMS for speeding alert	Verify that the system logs an error or provides feedback if SMS is not received for a speeding alert.	User has SMS notifications enabled, vehicle exceeds speed limit	1. Log in to the system. 2. Set a speed limit. 3. Drive above the speed limit. 4. Verify SMS receipt.	P0	SMS should be sent if the limit is exceeded. In case of failure , there should be a log or error message.		

Project Name	GPS Tracking System
Module Name	Reports
Created By	Ajay Sah
Created Date	25-Sep-2024
Project URL	
Peer Received By	Sagar

Test Case Id	Test Case Title	Test Case Description	Precondition	Steps	Priority	Expected Result	Actual Result	Status
Test Case_Report_001	Generate trip report	Verify that the platform can generate a detailed trip report based on user selection.	User is logged into the GPS tracking system and has access to report generation	1. Log in to the GPS tracking system. 2. Navigate to the Reports section. 3. Select "Trip Report". 4. Define the date range and vehicle. 5. Generate the report.	High	The system generates a report showing trip details (start, stop times, distance covered, etc.) for the selected vehicle and date range.		
Test Case_Report_002	Generate stop report	Verify that the platform can generate a stop report showing where and how long the vehicle stopped.	User is logged into the GPS tracking system with access to the Reports section	1. Log in to the GPS tracking system. 2. Navigate to the Reports section. 3. Select "Stop Report". 4. Define the date range and vehicle. 5. Generate the report.	Medium	The system generates a report showing detailed information about all stops made by the vehicle within the defined time frame.		
Test Case_Report_003	Generate usage statistics report	Verify that the platform can generate a usage statistics report for system utilization.	User is logged into the GPS tracking system and has usage statistics access	1. Log in to the GPS tracking system. 2. Navigate to the Reports section. 3. Select "Usage Statistics". 4. Set the desired date range. 5. Generate the report.	Low	The system generates a report showing statistics on how the system is being used (number of trips, total distance, etc.).		

Project Name	GPS Tracking System
Module Name	Mobile App
Created By	Ajay Sah
Created Date	26-Sep-2024
Project URL	
Peer Received By	Sagar

Test Case Id	Test Case Title	Test Case Description	Precondition	Steps	Priority	Expected Result	Actual Result	Status
Test Case_MOB_001	Install and Lunch mobile app on Android	Verify that the mobile app can be installed and Lunch successfully on an Android device.	The Android device is connected to the internet and has access to Google Play Store.	1. Open Google Play Store. 2. Search for the GPS tracking mobile app. 3. Download and install the app. 4. Launch the app after installation.	High	The app is installed and launches successfully on the Android device.		
Test Case_MOB_002	Install and Lunchrmobile app on iOS	Verify that the mobile app can be installed and Lunch successfully on an iOS device.	The iOS device is connected to the internet and has access to the App Store.	1. Open the App Store. 2. Search for the GPS tracking mobile app. 3. Download and install the app. 4. Launch the app after installation.	High	The app is installed and launches successfully on the iOS device.		
Test Case_MOB_003	Log in to mobile app (Android)	Verify that users can log in to the Android mobile app using valid cr	The app is installed on the Android device, and the user has valid credentials.	1. Open the GPS tracking mobile app on Android. 2. Enter valid username and password. 3. Click "Log In".	High	User successfully logs in, and the dashboard is displayed.		
Test Case_MOB_004	Log in to mobile app (iOS)	Verify that users can log in to the iOS mobile app using valid credentials.	The app is installed on the iOS device, and the user has valid credentials.	1. Open the GPS tracking mobile app on iOS. 2. Enter valid username and password. 3. Click "Log In".	High	User successfully logs in, and the dashboard is displayed.		
Test Case_MOB_005	Track assets in real-time (Android)	Verify that the Android app allows users to track assets in real-time.	User is logged into the Android mobile app, and the system is tracking assets.	1. Open the GPS tracking app. 2. Go to the "Real-Time Tracking" section. 3. Select an asset. 4. Verify the asset's location updates in real-time.	Medium	The asset's location updates in real-time on the map.		
Test Case_MOB_006	Track assets in real-time (iOS)	Verify that the iOS app allows users to track assets in real-time.	User is logged into the iOS mobile app, and the system is tracking assets.	1. Open the GPS tracking app. 2. Go to the "Real-Time Tracking" section. 3. Select an asset. 4. Verify the asset's location updates in real-time.	Medium	The asset's location updates in real-time on the map.		
Test Case_MOB_007	Geofence notifications on mobile (Android)	Verify that geofence violation notifications are received on the Android mobile app.	User is logged into the Android app, and a geofence is set for an asset.	1. Open the GPS tracking app. 2. Ensure geofence alerts are enabled. 3. Move the asset outside the defined geofence. 4. Verify the notification is received.	Medium	The user receives a push notification for the geofence violation.		
Test Case_MOB_008	Geofence notifications on mobile (iOS)	Verify that geofence violation notifications are received on the iOS mobile app.	User is logged into the iOS app, and a geofence is set for an asset.	1. Open the GPS tracking app. 2. Ensure geofence alerts are enabled. 3. Move the asset outside the defined geofence. 4. Verify the notification is received.	Medium	The user receives a push notification for the geofence violation.		
Test Case_MOB_009	Speeding notifications on mobile (Android)	Verify that speeding notifications are received on the Android mobile app.	User is logged into the Android app, and a speed limit is set for an asset.	1. Open the GPS tracking app. 2. Ensure speeding alerts are enabled. 3. Exceed the set speed limit with the asset. 4. Verify the notification is received.	Medium	The user receives a push notification for the speeding violation.		
Test Case_MOB_010	Speeding notifications on mobile (iOS)	Verify that speeding notifications are received on the iOS mobile app.	User is logged into the iOS app, and a speed limit is set for an asset.	1. Open the GPS tracking app. 2. Ensure speeding alerts are enabled. 3. Exceed the set speed limit with the asset. 4. Verify the notification is received.	Medium	The user receives a push notification for the speeding violation.		

Project Name	GPS Tracking System
Module Name	Multiple Device Support
Created By	Ajay Sah
Created Date	26-Sep-2024
Project URL	
Peer Received By	Sagar

Test Case Id	Test Case Title	Test Case Description	Precondition	Steps	Priority	Expected Result	Actual Result	Status
Test Case_MDS_001	GPS Tracker Compatibility	Verify that the system supports GPS tracker and correctly displays location data.	GPS tracker is powered on and ready for use.	1. Power on GPS tracker. 2. Add GPS tracker to the system. 3. Check if the system receives location data and displays it correctly on the map.	P0	The GPS tracker should sends location data successfully and is displayed on the map in real-time.		
Test Case_MDS_002	Smartphone Tracking	Verify that the system tracks a smartphone and correctly displays the real-time location.	Smartphone app is installed, and location services are enabled.	1. Open the tracking app on the smartphone. 2. Add the smartphone to the system. 3. Verify if the system receives location data and displays it on the map.	P1	The smartphone sends location data successfully and i is displayed on the map in real-time.		
Test Case_MDS_003	IoT Device Data Transmission	Verify that the system supports IoT device communication and displays data on the dashboard.	IoT device is connected to the network and configured to send data to the system.	1. Connect the IoT device to the system. 2. Verify the transmission of data. 3. Check if data is visible on the system dashboard.	P0	The IoT device transmits data successfully and it is reflected on the dashboard in real-time.		
Test Case_MDS_004	Multiple Device Compatibility	Verify that the system can track multiple devices simultaneously (GPS tracker, smartphone, IoT device).	All devices (GPS tracker, smartphone, IoT device) are powered on and ready to be added to the system.	1. Add all devices to the system. 2. Track all devices simultaneously. 3. Verify if the system correctly displays data for all devices.	P0	The system receives and displays data from all devices without any data loss or crashes.		
Test Case_MDS_005	TCP/UDP Protocol Support	Verify that the system supports both TCP and UDP protocols for data transmission.	Devices supporting TCP and UDP protocols are available.	1. Add a device supporting TCP. 2. Verify data transmission. 3. Add a device supporting UDP. 4. Verify data transmission using UDP protocol.	P0	The system successfully receives data over both TCP and UDP protocols and displays it in real-time.		
Test Case_MDS_006	Data Synchronization After Network Loss	Verify that the system can synchronize and retrieve missing data after network connectivity is restored.	GPS tracker is added, and an active connection to the system is established.	1. Disable the internet connection. 2. Re-enable the connection. 3. Check if the system retrieves and displays the missing location data.	P1	The system successfully retrieves all missing data once the connection is restored, without any data loss.		

Project Name	GPS Tracking System
Module Name	User Management
Created By	Ajay Sah
Created Date	26-Sep-2024
Project URL	
Peer Received By	Sagar

Test Case Id	Test Case Title	Test Case Description	Precondition	Steps	Priority	Expected Result	Actual Result	Status
Twst Case_USM_001	Admin User Account Creation	Verify that an Admin user can be created successfully with full access to the system.	Admin credentials for the system.	1. Log in as an Admin. 2. Navigate to user management. 3. Create a new Admin user. 4. Verify that the new Admin has full access to all system features.	P0	Admin account is created successfully, and the user has full access to all features.		
Twst Case_USM_002	Regular User Account Creation	Verify that a Regular user can be created and has limited access to the system (non-admin privileges).	Admin privileges to create a regular user account.	1. Log in as an Admin. 2. Navigate to user management. 3. Create a Regular user. 4. Verify that the Regular user has limited access to specif features.	P0	Regular user account is created successfully, and the user has restricted access based on predefined permissions.		
Twst Case_USM_003	Guest User Account Creation	Verify that a Guest user can be created with read-only access to the system.	Admin privileges to create a guest user account.	1. Log in as an Admin. 2. Navigate to user management. 3. Create a Guest user. 4. Verify that the Guest user has only read-only access to the system.	P1	Guest user account is created successfully with read-only access to data but no edit permissions.		
Twst Case_USM_004	Admin Access Privileges	Verify that an Admin user has access to all system settings, user management, and data modification.	Admin account exists in the system.	1. Log in as an Admin. 2. Verify access to user management. 3. Verify ability to modify system settings and data. 4. Check ability to create/edit users.	P0	Admin user has full control over system settings, user management, and data.		
Twst Case_USM_005	Regular User Access Privileges	Verify that a Regular user can access data and perform limited actions but cannot access system settings or user management.	Regular user account exists in the system.	1. Log in as a Regular user. 2. Verify access to specific features based on permissions 3. Check inability to access system settings and user management.	P1	Regular user can access certain features (e.g., data entry) but cannot modify system settings or manage other users.		
Twst Case_USM_006	Guest User Access Privileges	Verify that a Guest user can view system data but cannot modify or interact with it.	Guest user account exists in the system.	1. Log in as a Guest user. 2. Verify read-only access to system data. 3. Ensure no ability to modify or delete data.	Low	Guest user can view data but cannot perform any modifications.		
Twst Case_USM_007	Organization-Level User Management	Verify that an organization can create multiple user roles (Admin, Regular, Guest) and manage permissions at an organizational level.	Organization account exists with permission to create and manage users.	1. Log in as an Organization Admin. 2. Create Admin, Regular, and Guest users. 3. Assign permissions accordingly. 4. Verify access based on roles.	P0	The organization successfully manages multiple users with different roles and permissions at the organizational level.		
Twst Case_USM_008	Password Policy Enforcement	Verify that the system enforces password policies (e.g., minimum length, special characters) during user account creation.	Password policy is defined in the system.	1. Attempt to create a user with a weak password. 2. Verify system prompts for a stronger password. 3. Create user with a valid password.	P0	The system rejects weak passwords and enforces the password policy, allowing user creation only after meeting the requirements.		
Twst Case_USM_009	User Account Suspension	Verify that Admin users can suspend or deactivate a user account , and that the deactivated user cannot access the system.	Admin account exists, and user accounts are available for deactivation.	1. Log in as an Admin. 2. Navigate to user management. 3. Deactivate a user account. 4. Verify that the user can no longer log in to the system.	P1	The deactivated user cannot access the system and receives an appropriate error message when attempting to log in.		

Project Name	GPS Tracking System
Module Name	Remote Configuration
Created By	Ajay Sah
Created Date	26-Sep-2024
Project URL	
Peer Received By	Sagar

Test Case Id	Test Case Title	Test Case Description	Precondition	Steps	Priority	Expected Result	Actual Result	Status
Test Case _RC_001	Remote Configuration Access	Verify that an Admin user can access the remote configuration feature for supported devices.	Admin account with necessary permissions exists.	1. Log in as an Admin. 2. Navigate to the remote configuration section. 3. Check if the remote configuration options are available for supported devices.	P0	Admin user can access the remote configuration settings for supported devices.		
Test Case _RC_002	Device Parameter Configuration	Verify that an Admin can successfully configure device parameters such as reporting intervals.	A supported device is registered in the system.	1. Log in as an Admin. 2. Navigate to the remote configuration for the specific device. 3. Change the reporting interval. 4. Save changes.	P0	The reporting interval is changed successfully, and the device reflects the updated setting in the system.		
Test Case _RC_003	Device Behavior Settings	Verify that an Admin can modify device behavior settings (e.g., alerts, notifications).	A supported device is registered in the system.	1. Log in as an Admin. 2. Navigate to the remote configuration for the specific device. 3. Change behavior settings. 4. Save changes.	P0	The behavior settings are modified successfully, and the device behaves as per the new settings.		
Test Case _RC_004	Configuration Change Propagation	Verify that configuration changes made remotely are propagated to the device in real-time.	A supported device is registered and connected.	1. Log in as an Admin. 2. Change any parameter remotely (e.g., reporting interval). 3. Check the device to verify if the change is reflected immediately.	P0	The changes made in the configuration are reflected on the device in real-time without delays.		
Test Case _RC_005	Remote Configuration Error Handling	Verify that appropriate error messages are displayed when attempting to configure a device that is offline or unreachable.	Device must be offline or disconnected from the network.	1. Log in as an Admin. 2. Attempt to change a parameter for an offline device. 3. Check for error message.	P0	The system displays an appropriate error message indicating that the device is offline or unreachable for configuration changes.		
Test Case _RC_006	Batch Configuration Capability	Verify that an Admin can configure parameters for multiple devices simultaneously (batch configuration).	Multiple supported devices must be registered in the system.	1. Log in as an Admin. 2. Navigate to the batch configuration section. 3. Select multiple devices. 4. Change a common parameter (e.g., reporting interval). 5. Save changes.	P0	The batch configuration is applied successfully to all selected devices, and the changes are reflected in the system.		
Test Case _RC_007	Reverting Configuration Changes	Verify that an Admin can revert configuration changes made to a device back to default settings.	A supported device is registered and has previous configurations.	1. Log in as an Admin. 2. Change any configuration parameter. 3. Revert to default settings. 4. Verify that the settings are reset to defaults.	P0	The device configuration reverts successfully to its default settings without errors.		
Test Case _RC_008	Security of Remote Configuration	Verify that only authorized users can access and modify remote configuration settings.	Admin and regular user accounts must exist.	1. Log in as a Regular user. 2. Attempt to access the remote configuration section. 3. Verify that access is denied.	P0	Unauthorized users cannot access remote configuration settings, and an appropriate access denied message is displayed.		
Test Case _RC_009	Logging of Configuration Change	Verify that all configuration changes made remotely are logged appropriately for auditing purposes.	A supported device must be configured and accessed by an Admin.	1. Log in as an Admin. 2. Change a configuration parameter. 3. Check the system logs for the configuration change entry.	P0	The configuration change is logged successfully with details such as user, date, time, and changes made for audit purposes.		

Project Name	GPS Tracking System
Module Name	Security
Created By	Ajay Sah
Created Date	26-Sep-2024
Project URL	
Peer Received By	Sagar

Test Case Id	Test Case Title	Test Case Description	Precondition	Steps	Priority	Expected Result	Actual Result	Status
Test Case _SC_001	User Login Functionality	Verify that users can successfully log in with valid credentials.	User account with valid credentials exists.	1. Open the login page. 2. Enter valid username and password. 3. Click the "Login" button.	P0	User is logged in successfully and redirected to the dashboard.		
Test Case _SC_002	User Login with Invalid Credentials	Verify that users cannot log in with invalid credentials and receive an appropriate error message.	User account with invalid credentials is tested.	1. Open the login page. 2. Enter invalid username and/or password. 3. Click the "Login" button.	P0	The system displays an error message indicating that the credentials are invalid and the user remains on the login page.		
Test Case _SC_003	User Session Management	Verify that user sessions are managed correctly and expire after a specified duration of inactivity.	User is logged in successfully.	1. Log in as a user. 2. Remain inactive for the specified timeout duration. 3. Attempt to perform an action after timeout.	P0	The user is logged out automatically after the specified timeout, and any actions prompt a re-login.		
Test Case _SC_004	User Role-Based Access Control	Verify that users with different roles (Admin, Regular User, Guest) can access only the functionalities assigned to their roles.	User accounts with different roles exist in the system.	1. Log in as an Admin. 2. Verify access to admin features (user management, system settings). 3. Log in as a Regular User and check restricted access.	P0	Admin has access to all features, Regular User has limited access, and Guest has read-only access.		
Test Case _SC_005	Password Recovery	Verify that users can successfully recover their passwords using a registered email address.	User account with a registered email exists.	1. Open the login page. 2. Click on "Forgot Password". 3. Enter registered email address. 4. Follow the password recovery instructions.	P0	The system sends a password recovery email to the registered address, and the user can reset their password successfully.		
Test Case _SC_006	Two-Factor Authentication (2FA)	Verify that users can enable and use two-factor authentication for added security during login.	User account exists, and the 2FA feature is enabled in the sy	1. Log in with valid credentials. 2. Enter the verification code sent via SMS or email. 3. Access the dashboard after successful verification.	P0	User must enter the correct verification code to log in; if incorrect, access is denied, and an error message is displayed.		
Test Case _SC_007	Account Lockout Mechanism	Verify that the user account is temporarily locked after a specified number of failed login attempts.	User account exists for testing.	1. Attempt to log in with invalid credentials multiple times (e.g., 5 attempts). 2. Attempt to log in again after lockout duration.	P0	The account is temporarily locked after exceeding the allowed number of failed attempts, and an appropriate message is displayed.		
Test Case _SC_008	Secure Data Transmission	Verify that data transmitted between the client and server is encrypted to prevent interception.	The system must be using HTTPS for secure communication	1. Initiate a login request. 2. Use a network monitoring tool to check if the credentials are transmitted secu	P0	Credentials and data are transmitted securely over HTTPS, ensuring no sensitive information is exposed.		
Test Case _SC_009	Logout Functionality	Verify that users can log out successfully and that their session is terminated.	User must be logged in.	1. Log in as a user. 2. Click the "Logout" button. 3. Attempt to access the dashboard after logging out.	P0	The user is logged out successfully, and accessing any features redirects back to the login page.		
Test Case _SC_010	Security Auditing	Verify that all user actions, especially sensitive actions, are logged for auditing purposes.	User account exists with permissions to perform sensitive actions.	1. Log in as an Admin. 2. Perform sensitive actions (e.g., user creation, deletion). 3. Check the audit log for entries related to those actions.	P0	The audit log captures all relevant actions performed by the user, including timestamps and action details for security audits.		