s

mCheck [User Manual]

*Developed for the Government of Uttarakhand, the **mCHECK** app acts as a centralized enforcement tool aimed at curbing illegal mineral transportation. It enables real-time monitoring and on-the-spot vehicle inspections at designated checkgates, helping officials promptly detect and document anomalies and generate actionable alerts.*

Prepared For

Directorate of Geology and Mining, Uttarakhand

Prepared By

ITI LIMITED
(A Government of India Undertaking)

ITI Limited

Table of Contents

1.0 Introduction....2
1.1 Dashboard Overview (After Login)....7
1.1.1 Dashboard Features....7
1.1.2 Screen: Transit Pass Verify (MM-11 / Form-J / ISTP)....9
1.1.3 Button Action....9
1.2 Vehicle Verification Result (Transit Pass Details)....10
1.2.1 Vehicle Information Popup(Page)....11
1.2.2 Additional Transit Pass Fields (on Details Page)....11
1.2.3 Button Action....11
1.2.4 Instructions for Use....13
1.2.5 Driver & Vehicle Details....13
2.0 Volume Measurement....22
3.0 Check-Gate Alerts....24
4.0 My Activity....25
5.0 DGM....27
6.0 Profile....29
7.0 Printer....31

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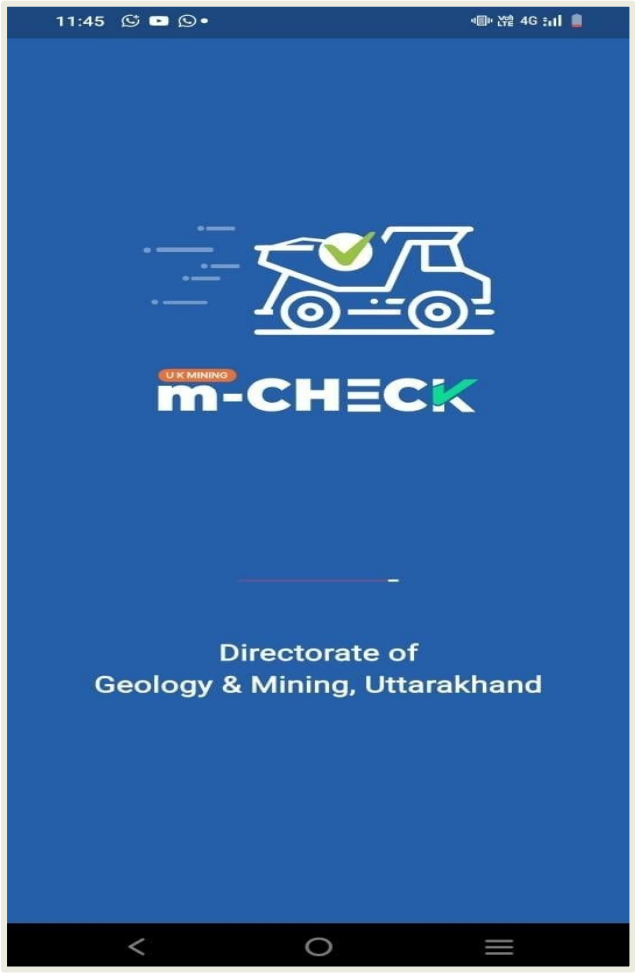
1.0 Introduction

To **mCHECK** is a mobile application developed by the Directorate of Geology & Mining, Uttarakhand. It is designed to monitor and manage mining-related activities in the state. The app helps ensure transparency, track mineral transportation, verify documents like permits, and reduce illegal mining practices.



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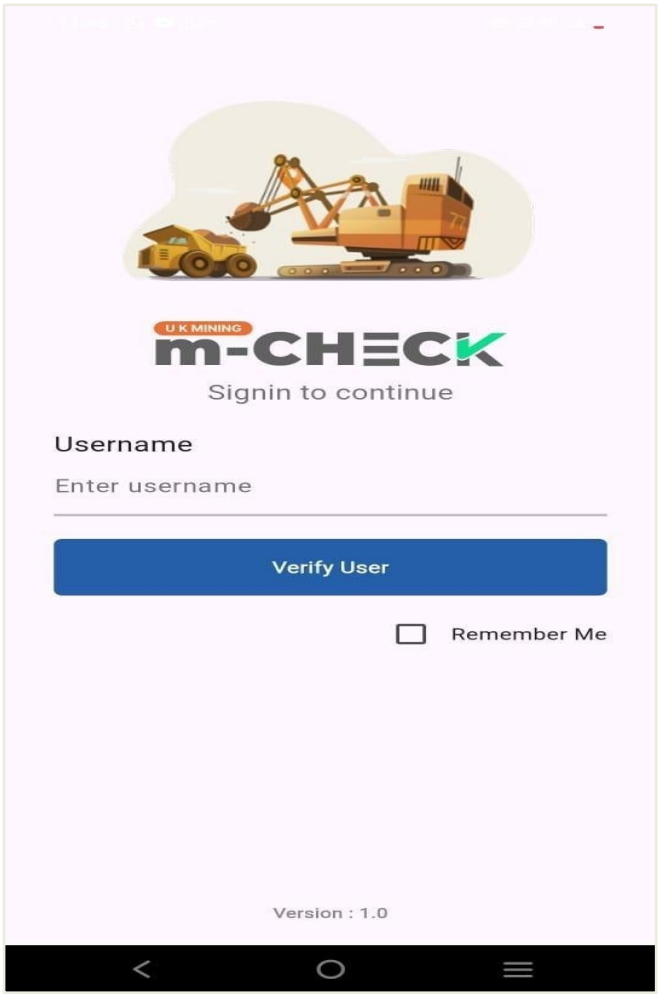


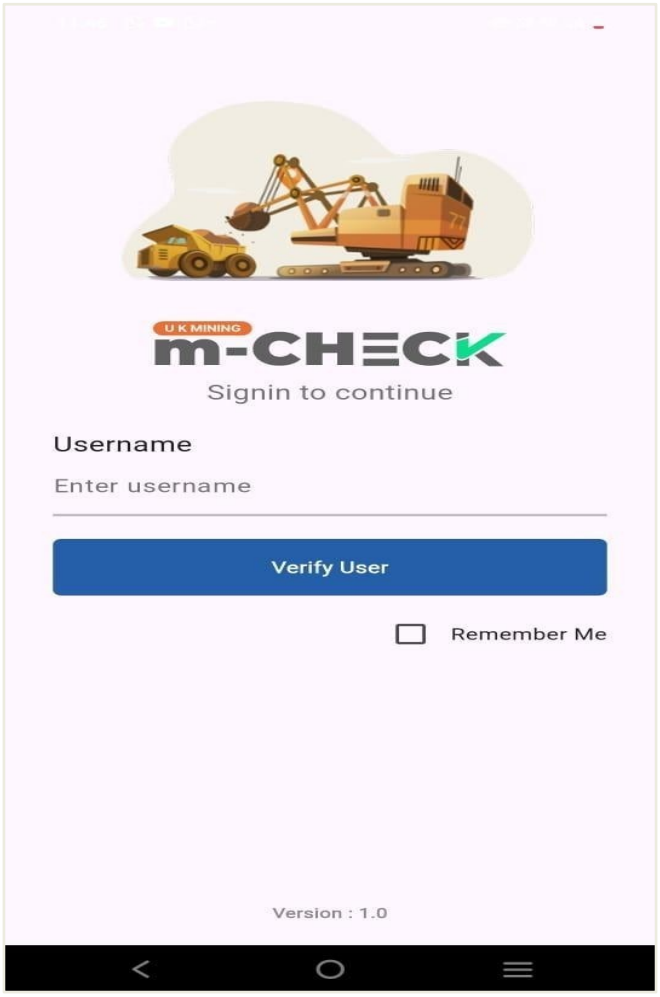
User login process (How to sign in)

Step 1: Open the App

- Launch the mCHECK app on your Android device.
- You'll see the welcome splash screen with a logo and tagline.

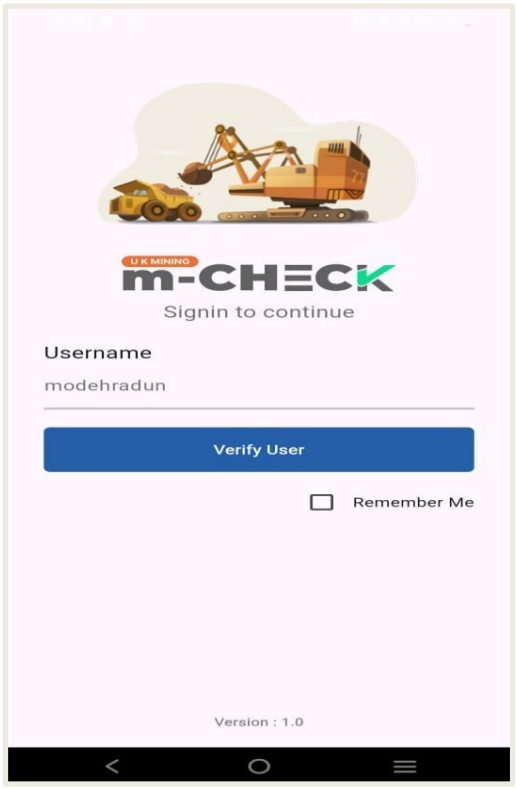
Step 2: Go to Login Page

- After the splash screen, you are directed to the Login/Verification Page.



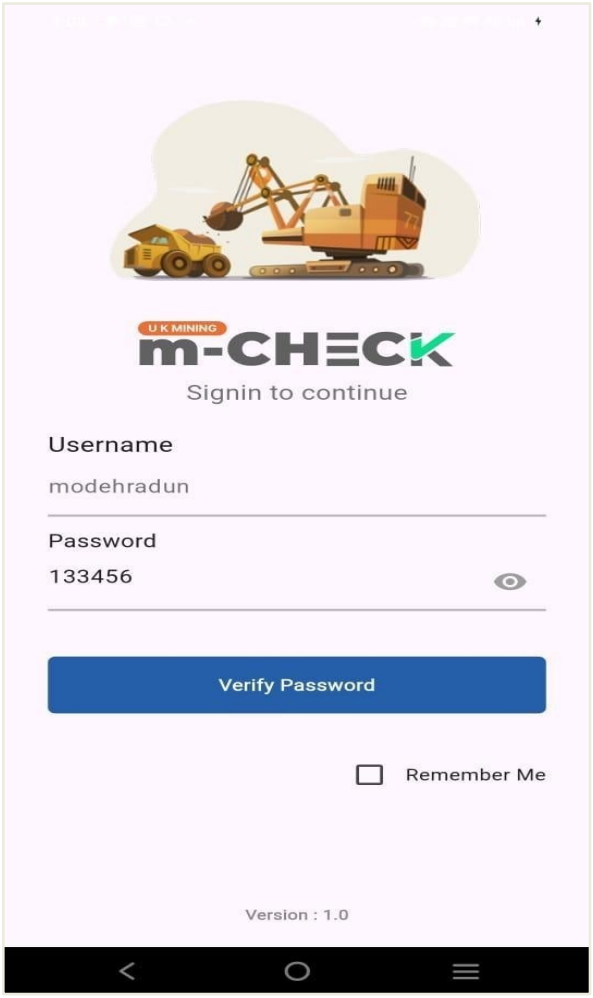
Step 3: Enter Username

- Input your Username (provided by the admin or created in the backend).
- Tap the "**Verify User**" button.



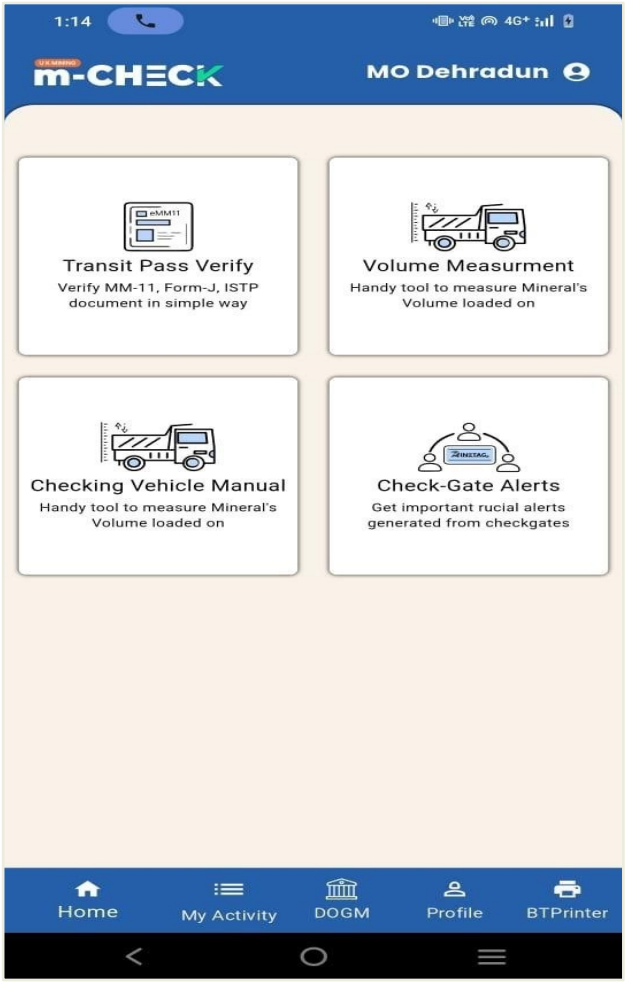
Step 4: Enter Password (next screen)

- If the username is valid, you'll be prompted to enter your password on the next screen.Click Verify Password Go To Next Screen.


U K MINING
m-CHECK
Signin to continue
Username
modehradun
Password
133456
Verify Password
Remember Me
Version : 1.0

1.1 Dashboard Overview (After Login)

After successful login, the user will land on the Main Dashboard. The top of the screen shows the user's location (e.g., MO Dehradun).



1.1.1 Dashboard Features

S#	Feature	Description
1	Transit Pass Verify	MM-11, Form-J, ISTP documents etc.
2	Volume Measurement	tool to measure loaded mineral volume
3	Checking Vehicle Manual	input values to estimate volume
4	Check-Gate Alerts	alerts raised from mineral check gates

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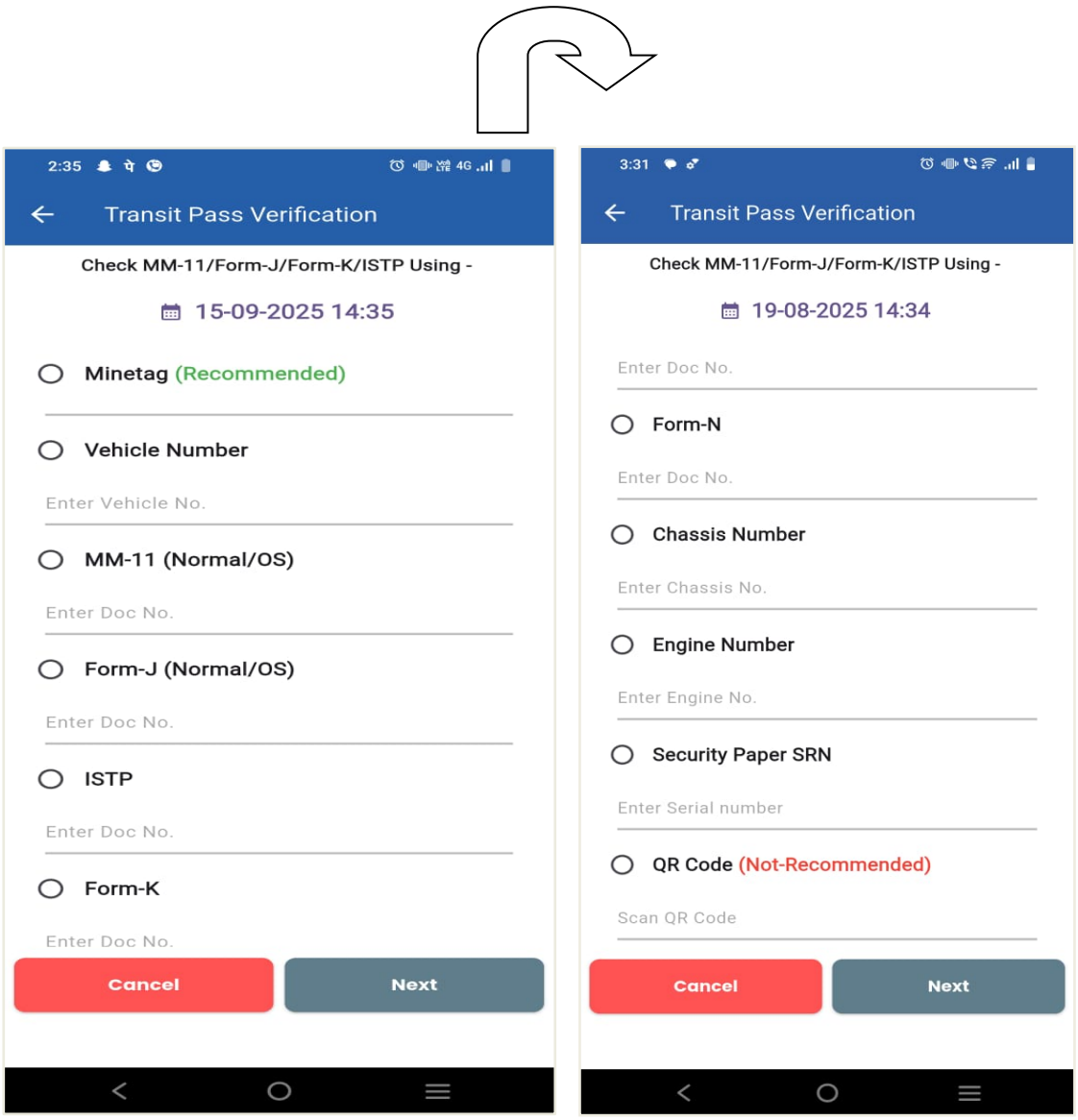
Then Open Transit Pass Verify



Transit Pass Verify Module

This feature allows users to verify the authenticity of different mineral transport forms/documents like MM-11, Form-J, ISTP, etc

1.1.2 Screen: Transit Pass Verify (MM-11 / Form-J / ISTP)

S#	Field	Description
1	Date Time	Auto-filled with the current date and time (can be adjusted with calendar icon)
2	Minetag (Recommended)	Verify using a GPS-based Minetag ID (most accurate method)
3	Vehicle Number	Enter the vehicle registration number for verification
4	MM-11 (Normal/OS)	Enter MM-11 document number for validation
5	Form-J (Normal/OS)	Enter Form-J document number for validation
6	ISTP	Input ISTP (Inter State Transit Pass) number
7	Form-K	Enter Form-K number (if applicable)
8	Form-N	Enter Form-N number (if applicable)
9	Field	Description
10	Chassis Number	Enter the chassis number of the vehicle for verification
11	Engine Number	Enter the engine number of the vehicle for verification
12	Security Paper SRN	Enter the security paper serial number (SRN) for validation
13	QR Code	Scan QR code for verification (not recommended)

Note: Only one verification method can be selected at a time

1.1.3 Button Action

S#	Button	Function
1	Cancel	Discards current form and returns to dashboard
2	Next	Proceeds to validate the selected and filled information

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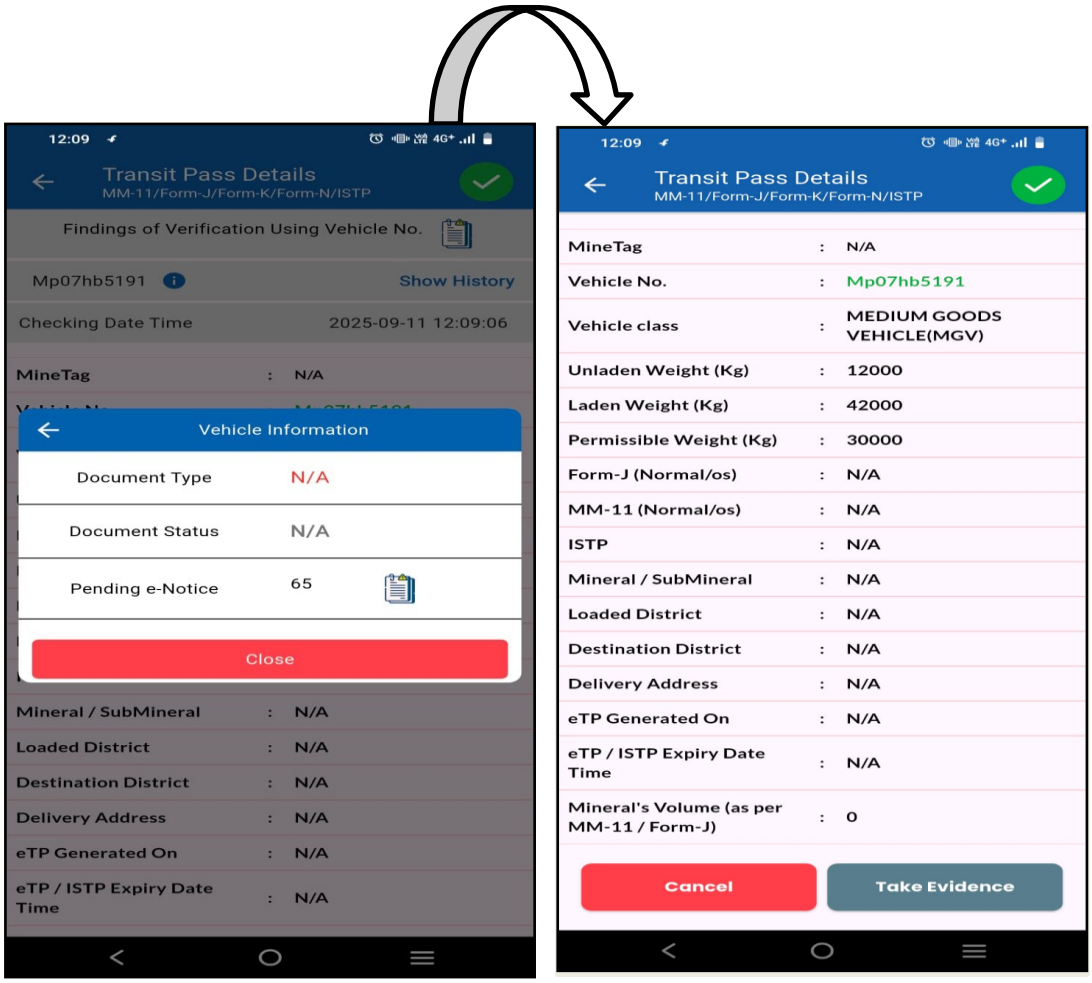
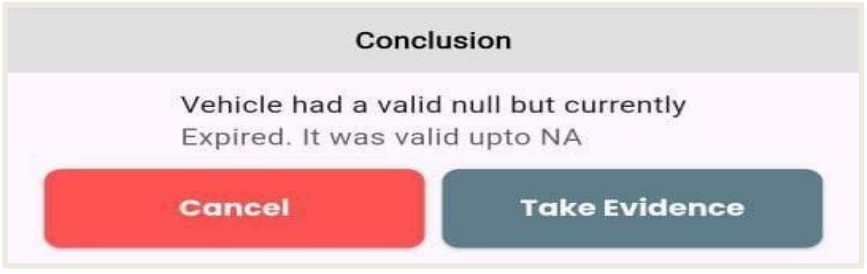
1.2 Vehicle Verification Result (Transit Pass Details)

Once the user submits a Vehicle Number and clicks Next, the system shows a result screen titled Transit Pass Details. This includes a pop-up window called Vehicle Information with the verification findings.





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1.2.1 Vehicle Information Popup(Page)

S#	Field	Description
1	Document Type	Shows the type of document associated with the vehicle (e.g., MM-11, ISTP)
2	Document Status	Indicates the current status (e.g., Active, Expired, NA)
3	Pending Notice	Displays number of pending notices associated with the vehicle (0 if clear)
4	Close Button	Closes the popup and returns to full transit pass details

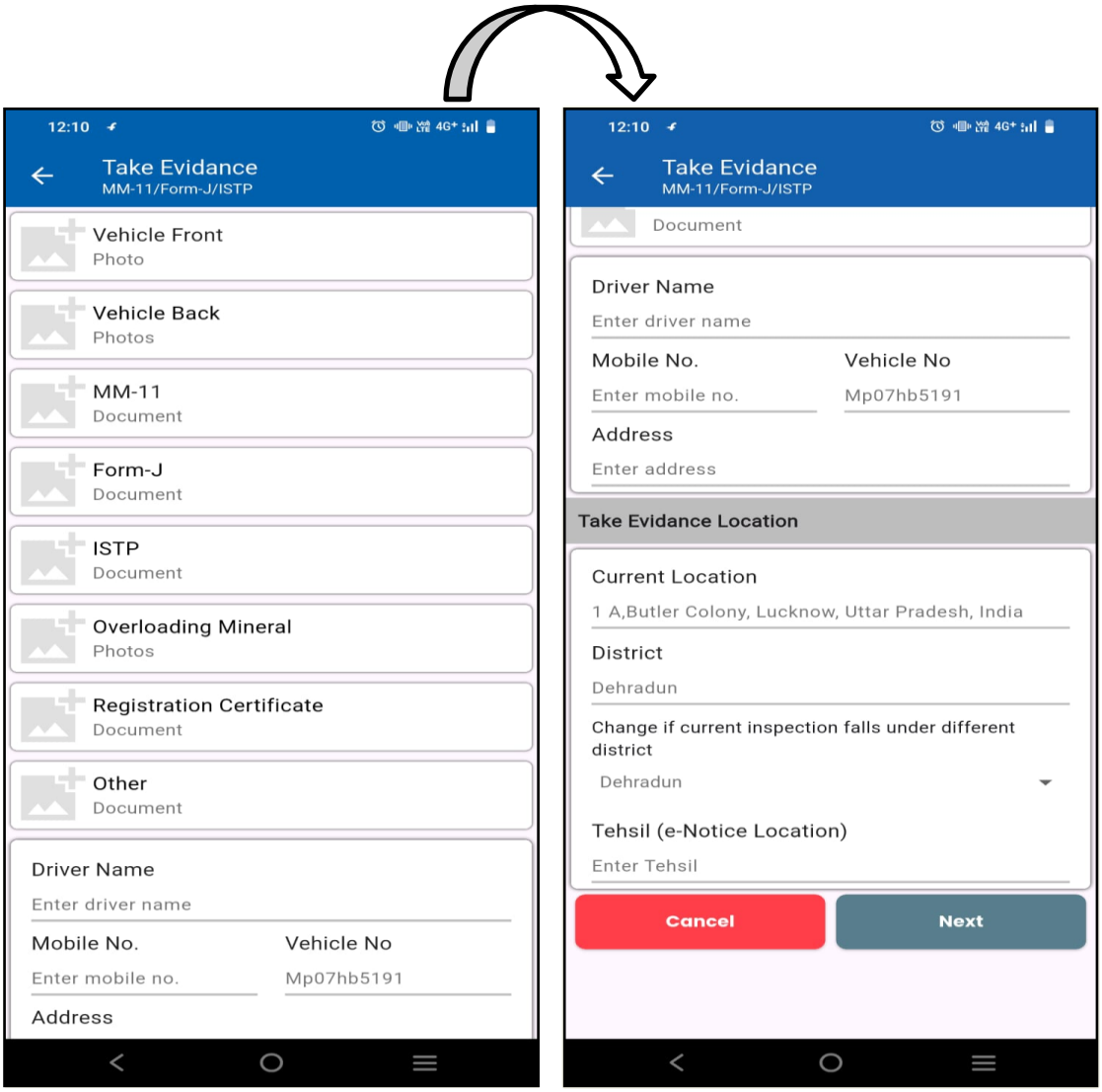
1.2.2 Additional Transit Pass Fields (on Details Page)

S#	Field	Description
1	Mine Tag	Unique GPS tag linked to mining operation
2	Vehicle Number	The number entered by the user
3	Mineral/Sub Mineral	Type of mineral being transported
4	Loaded District	Source location of the minerals
5	Destination District	Where the minerals are being delivered
6	Delivery Address	Final address of delivery
7	eTP Generated On	Date when the e-Transit Pass was created
8	eTP/ISTP Expiry Date Time	Expiry timestamp of the document
9	MM-11(OS)	Document info for Other State MM-11 pass

1.2.3 Button Action

S #	Button	Color	Label	Function	Use Case
1	Cancel	Red	Cancel	Aborts the verification process and returns to the previous screen.	When user wants to exit without taking any action or if verification is wrong.
2	Take Evidence	Dark Blue/Gray	Take Evidence	Opens camera or input options to capture supporting evidence (photos, location, notes).	When vehicle documents are expired or invalid and need to be reported.

Go To Take Evidence



Purpose

This screen allows the user (inspector/officer) to capture and upload visual and document- based evidence related to a vehicle inspection.

1.2.4 Instructions for Use

S#	Field	Type	Description / Action Required	Field	Type
1	Vehicle Front	Photo	Click on the camera/gallery icon to upload or capture a photo of the front view of the vehicle.	Vehicle Front	Photo
2	Vehicle Back	Photo	Upload or take a photo showing the rear view of the vehicle.	Vehicle Back	Photo
3	MM-11	Document	Upload the MM-11 related documentation (Mining Transport Slip).	MM-11	Document
4	Form-J	Document	Upload the Form-J (typically issued for specific permissions).	Form-J	Document
5	ISTP	Document	Upload the ISTP document (Inspection Slip/Transport Paper, etc.).	ISTP	Document
6	Overloading Mineral	Photo	Take/upload a photo that shows signs of mineral overloading.	Overloading Mineral	Photo
7	Registration Certificate	Document	Upload the vehicle's RC (Registration Certificate).	Registration Certificate	Document
8	Other	Document	Upload any other relevant document that doesn't fall under the above categories.	Other	Document

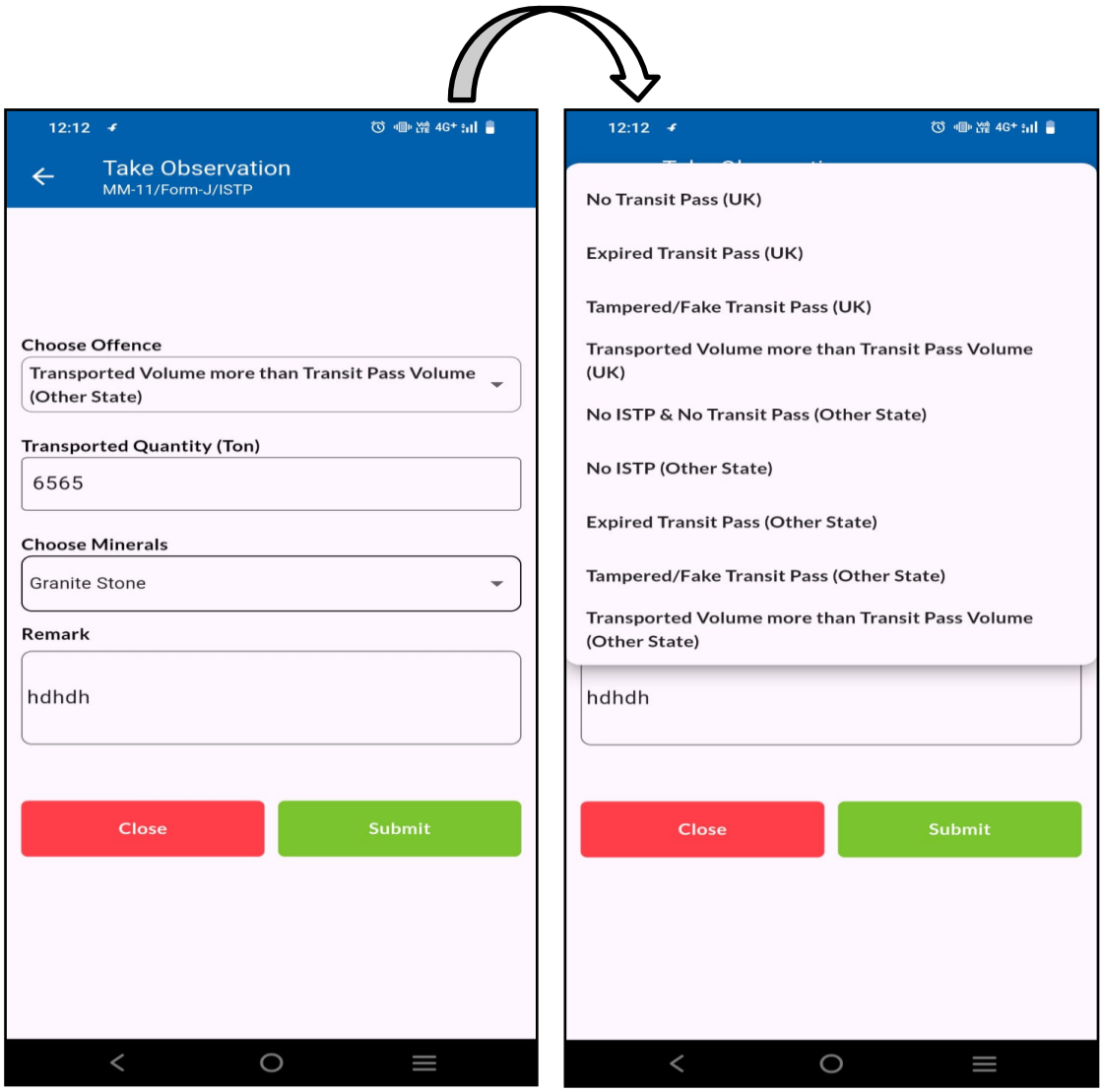
1.2.5 Driver & Vehicle Details

S #	Field	Action
1	Driver Name	Enter the full name of the driver.
2	Mobile No	Enter the mobile number of the driver.
3	Vehicle No	Automatically fetched or entered manually.
4	Address	Enter the driver’s or vehicle’s address.

Current Location

- Fetch automatically as per Location
- Enter Tehsil (according to District)

Click next go to take observation



Step 1: Start Observation

User opens the **Take Observation** screen.

Step 2: Select Offence

- Dropdown menu shows multiple offence options:
- No Transit Pass (UK / Other State)
- Expired Transit Pass (UK / Other State)
- Tampered/Fake Transit Pass (UK / Other State)
- Transported Volume more than Transit Pass Volume (UK / Other State)
- No ISTP & No Transit Pass (Other State)
- No ISTP (Other State)
- User must **select one offence**.

Step 3: Enter Transported Quantity

- Input field where user types transported volume (e.g., **6565 Tons**).
- Must match vehicle load capacity or physical check.

Step 4: Select Mineral

- Dropdown menu for mineral type:
- Granite Stone
- Sand
- Stone Grit
- Boulders
- Limestone, etc.

User selects the applicable mineral.

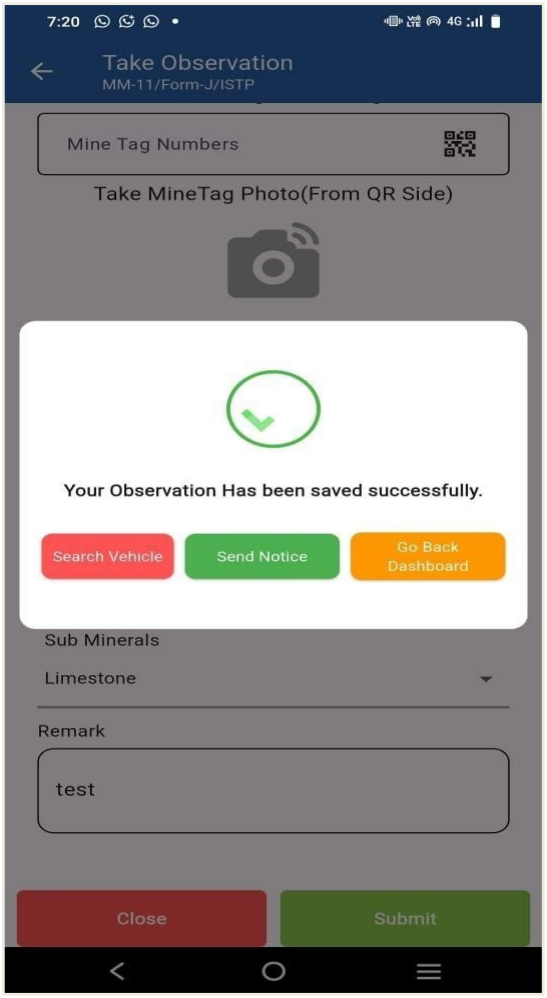
Step 5: Add Remarks

- Text field for remarks.
- Example inputs:
- "Expired pass found at checkpoint."
- "Volume exceeds pass details by 2 Tons."

Step 6: Final Action

- Click **Close** to discard
- Click **Submit** to save the observation

After submit observation



Note:

Once you click "Submit" after filling in the form, the system confirms with:

🔔 Message:

Your Observation Has been saved successfully. You now see 3 follow-up options:

Search Vehicle (Red Button)

Use this to **immediately search the vehicle details** based on the MineTag or other identifiers. This is useful if:

- You want to verify past records.
- You need to cross-check ownership or transport permits.

Send Notice (Green Button)

Tap this to **generate and send an official notice** to the vehicle operator or transporter, based on the offence you observed.

A warning or penalty notice

SMS or system-based alert to the registered owner

An entry into the violation register

Go back Dashboard (Orange Button)

Click this to return to the **main dashboard** of the app where you can:

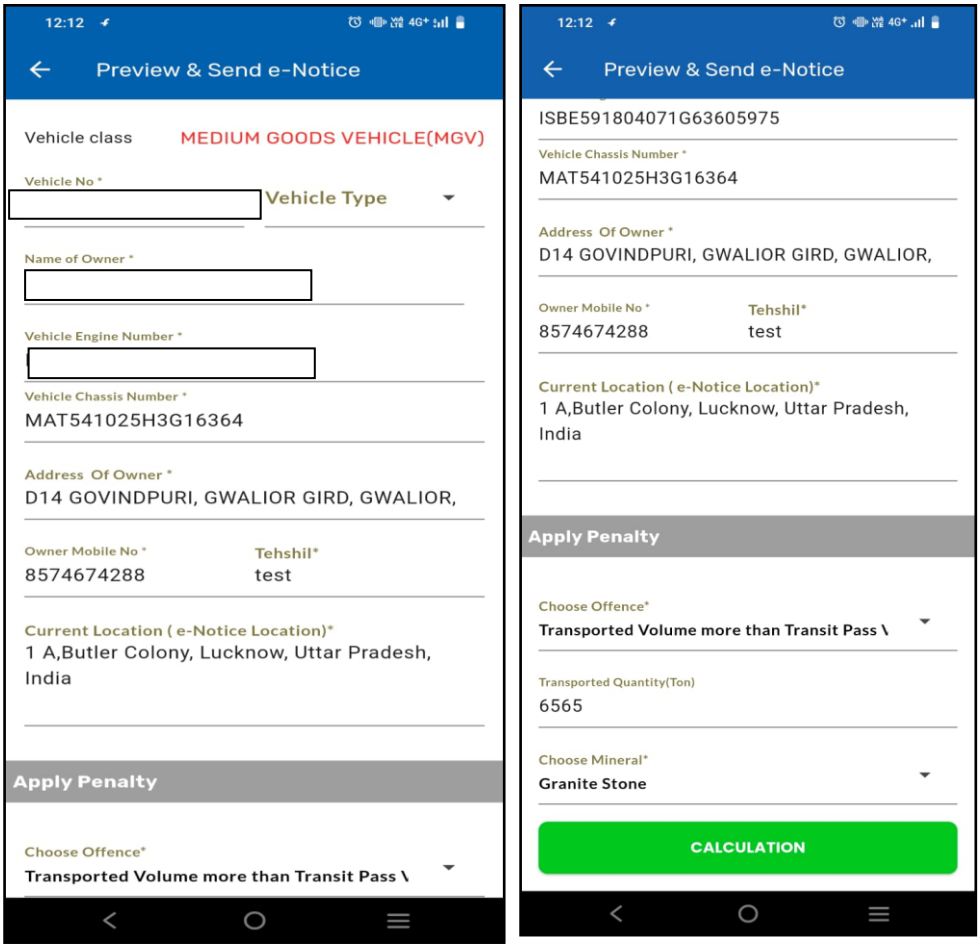
Take new observations

View pending actions

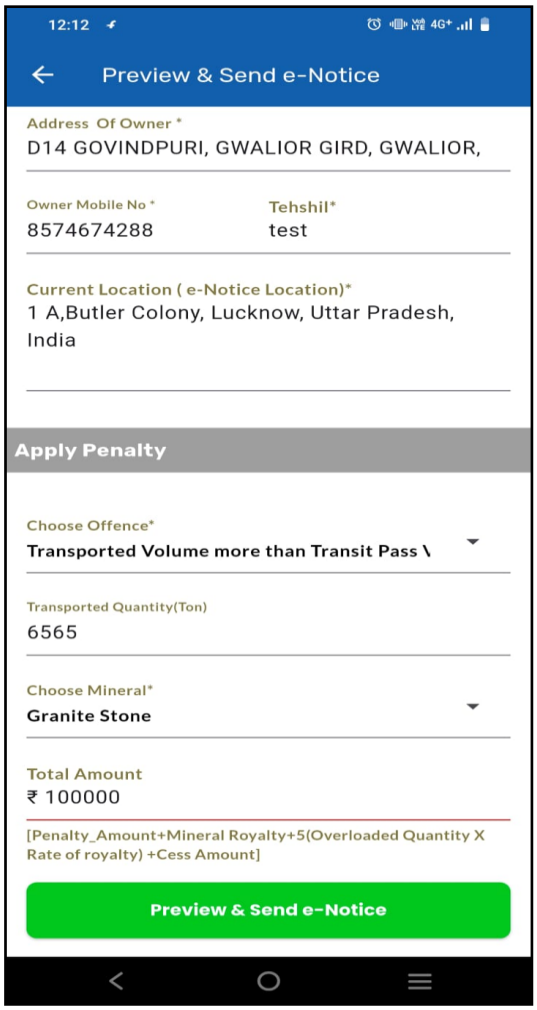
Manage other forms like MM-11, Form-J

.

Preview & send e-notice



Select Vehicle Type & click calculation



1. Vehicle Identification

- Officer uploads or captures **Vehicle Front Photo**.
- System auto-fills / officer selects:
- **Vehicle Class** (e.g., Medium Goods Vehicle – MGV)
- **Vehicle No.** (e.g., MP07HB5191)
- **Vehicle Type** (e.g., 10 Tyre)
- **Owner Name** (e.g., Chandra Shekar Singh)
- **Engine Number & Chassis Number** (mandatory fields)
- **Purpose:** Establishes the authenticity of the vehicle and links it to the registered owner.

2. Owner & Location Details

- System displays or officer enters:
- **Owner's Address**
- **Owner's Mobile Number**
- **Tehsil** (jurisdiction, here shown as "test")
- **Current Location (GPS-based)** – auto-fetched from officer's device (e.g., Butler Colony, Lucknow) **Purpose:** Captures where the offence was detected and ensures jurisdiction mapping.

Apply Penalty

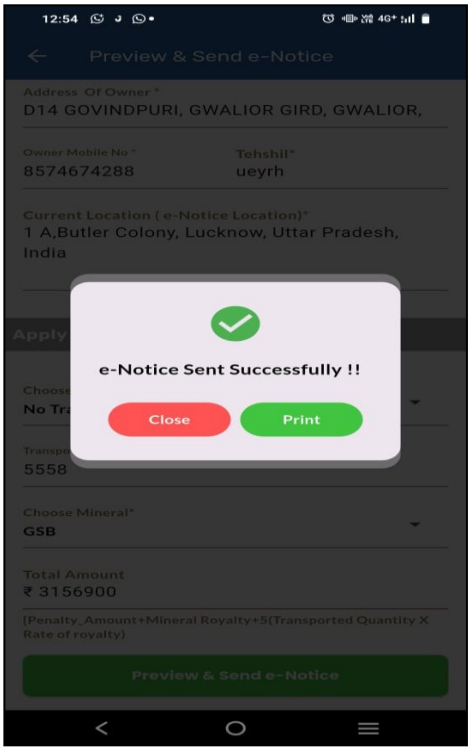
- Officer selects **offence type** from dropdown (e.g., "Transported Volume more than Transit Pass").
- Officer inputs **Transported Quantity (in tons)** (e.g., 6565).
- Officer selects **Mineral Type** (e.g., Granite Stone).
- **Purpose:** Defines the violation with exact quantity and mineral type.

4. Penalty Calculation

- User clicks **CALCULATION**.
- System auto-calculates **Total Amount**

Click Preview & Send e-Notice

Click send e-notice

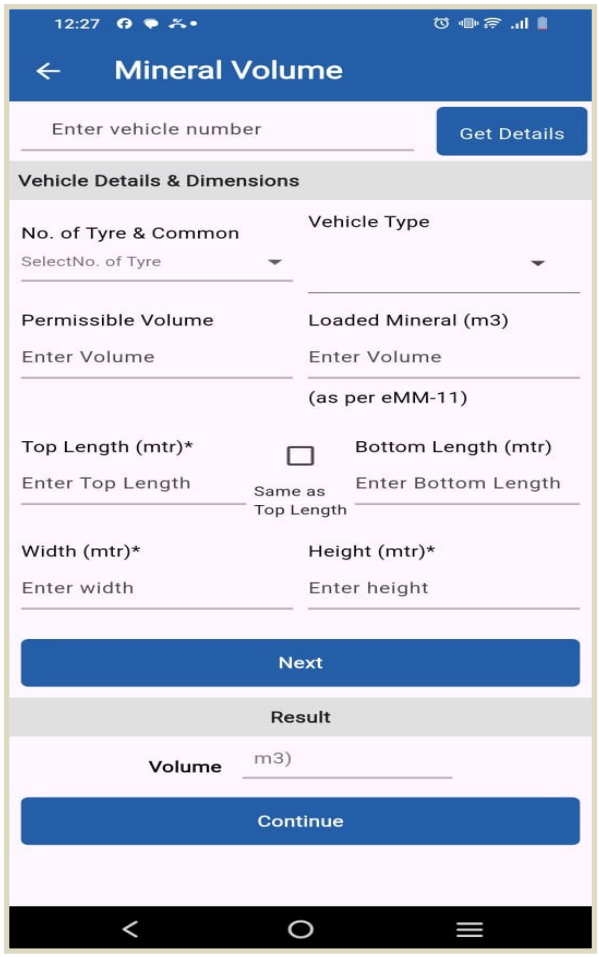


Button Action

Click Print (Green button for print e-Notice)

Click Close (Red button)

2.0 Volume Measurement



Purpose

This screen allows the user (inspector/officer) to enter vehicle details, dimensions, and mineral load information in order to calculate and verify the mineral volume (m^3) carried by the vehicle as per permissible limits.

1. Start

User opens the Mineral Volume screen.

2. Input Vehicle Number

User enters Vehicle Number in the text field.

Clicks Get Details System fetches & auto-fills vehicle details (like permissible volume, vehicle type, tyre info, etc., if available from database).

3. Enter Vehicle Details & Dimensions

User provides required details manually if not auto-fetched:

No. of Tyres & Common Dropdown selection.

Vehicle Type Dropdown selection.

Permissible Volume Enter allowed volume (m^3).

Loaded Mineral (m^3) Enter loaded mineral as per eMM-11.

4. Dimension Entry

Top Length (mtr) Enter manually.

Bottom Length (mtr) Enter manually (or check "Same as Top Length").

Width (mtr) Enter manually.

Height (mtr) Enter manually.

5. Click "Next"

System processes input.

Calculates Volume (m^3) using formula:

Volume=(TopLength+BottomLength)2×Width×Height\text{Volume} = \frac{(Top Length + Bottom Length)}{2} \times Width \times HeightVolume=2(TopLength+BottomLength)×Width×Height

Displays result under Result = Volume (m^3).

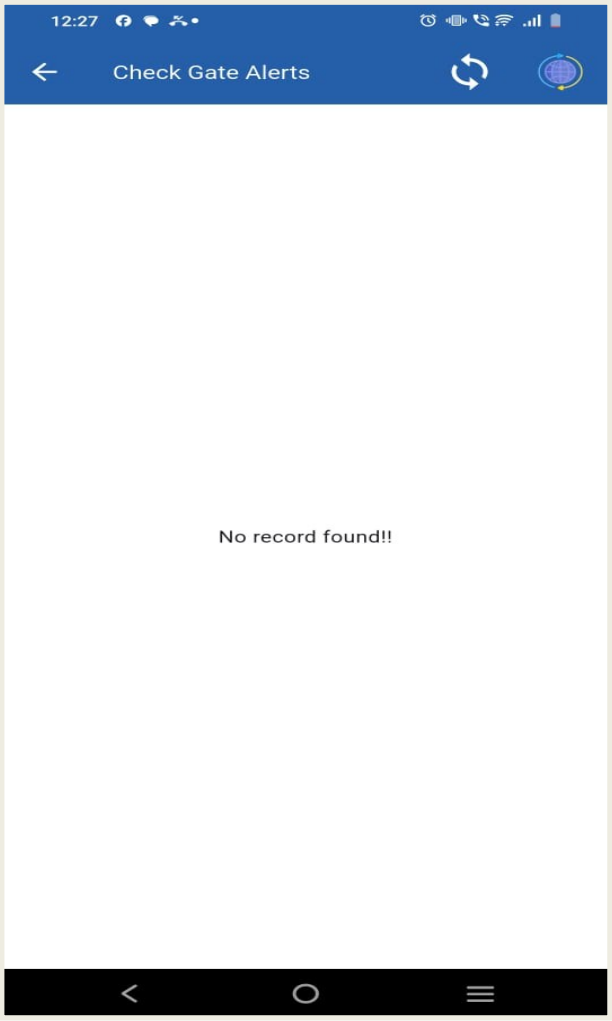
6. Review Result

User reviews calculated volume.

7. Continue

Click Continue System saves/validates details and moves user to next step (maybe submission, verification, or confirmation screen).

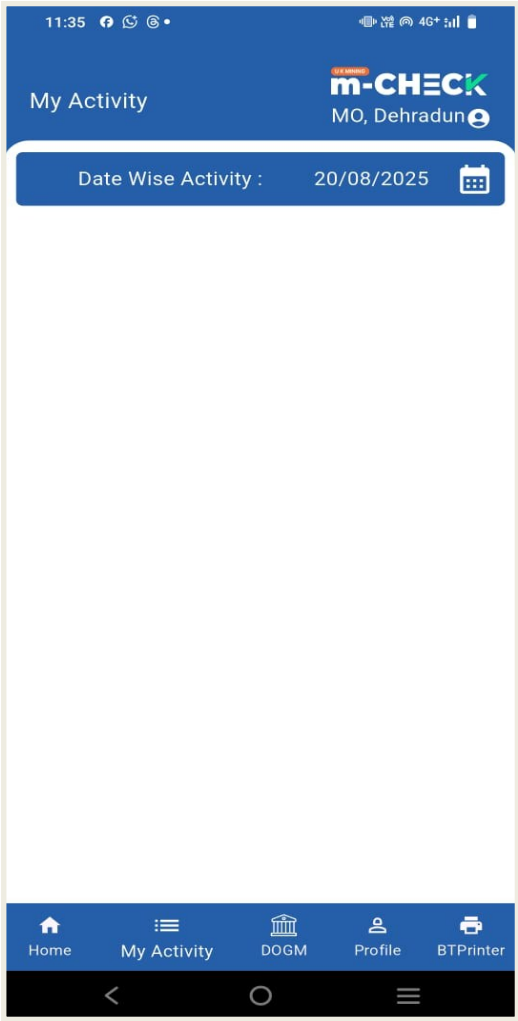
3.0 Check-Gate Alerts



Purpose

This screen allows the user (inspector/officer) to monitor and verify any alerts or notifications generated at the check gate related to vehicle movements, mineral transport, or compliance checks. If no alerts are available, the system displays a “No record found” message.

4.0 My Activity



Purpose

This screen allows the user (inspector/officer) to track and review their activities on a specific date. By selecting a date through the calendar option, the user can view a record of inspections, checks, or actions performed on that day. If no activities are recorded, the system displays a "No record found" message.

1.Navigation

User goes to the footer menu.

Clicks on "My Activity" icon.

System redirects to the My Activity screen.

2. View Activity

Screen displays a date filter (Date Wise Activity).

By default, current date is selected (e.g., 20/08/2025).

3. Select/Change Date

User can tap the calendar icon.

Selects another date from the date picker.

4. System Response

System fetches all user activities performed on the selected date (e.g., inspections, gate checks, mineral volume calculations, etc.).

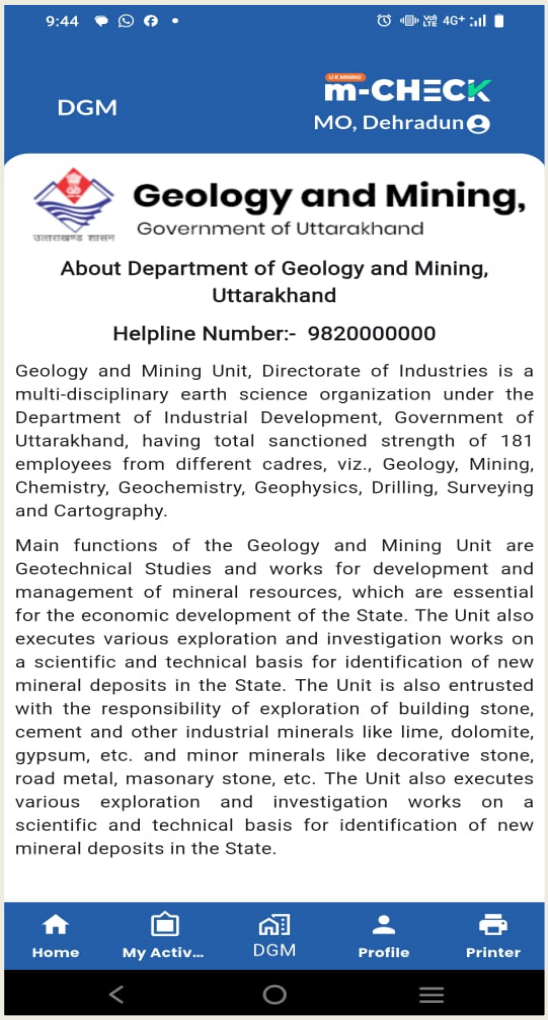
If no data is found → System displays "No record found" (similar to Check Gate Alerts screen).

If data exists → A list of activities (with timestamp, type of activity, and details) is displayed.

5. Review

User reviews daily activities for record-keeping or reporting.

5.0 DGM



Purpose

This screen provides the user (inspector/officer/general stakeholder) with official information about the Department of Geology and Mining, Uttarakhand. It highlights the department's functions, responsibilities, and helpline details, ensuring that users are aware of the organizational role in managing mineral resources and exploration activities within the state.

1. Navigation

- User goes to the footer menu.
- Clicks on the "DGM" icon.
- System redirects to the DGM information screen.

2. View Information

- The screen displays details about the Department of Geology and Mining, Uttarakhand.
- Includes:
- Department introduction
- Helpline number

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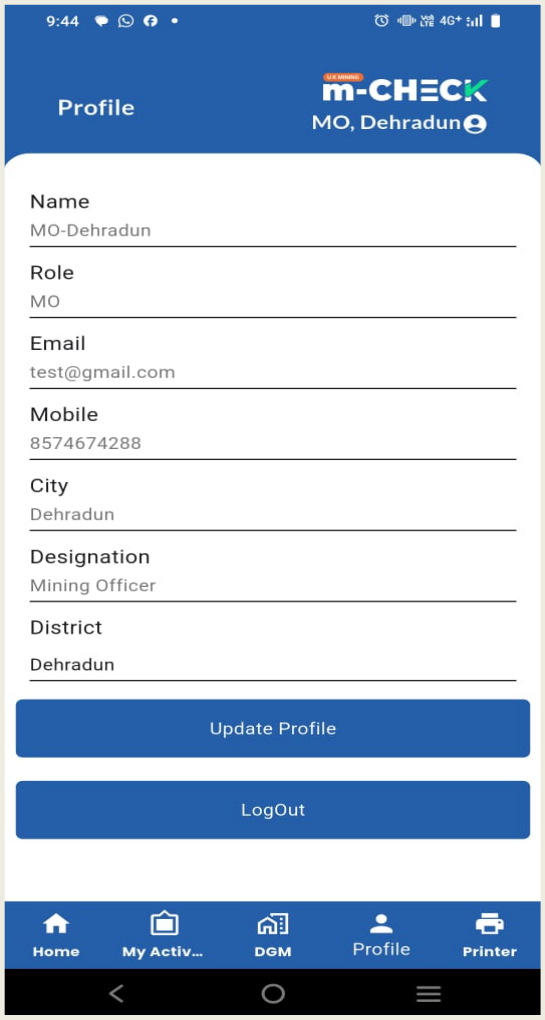
- Functions & responsibilities of the Geology and Mining Unit (exploration, mineral management, geotechnical studies, etc.)

3. User Action

- User can:
- Read about the department.
- Note down helpline details for support.

6.0 Profile



Purpose of Profile Section

- To allow the Mining Officer (MO) to view, verify, and update their personal and professional details in the mCHECK system.
- To provide an option for logging out safely when work is completed.
- Ensures that user identity is authenticated and linked to correct district & designation for mining activity monitoring.

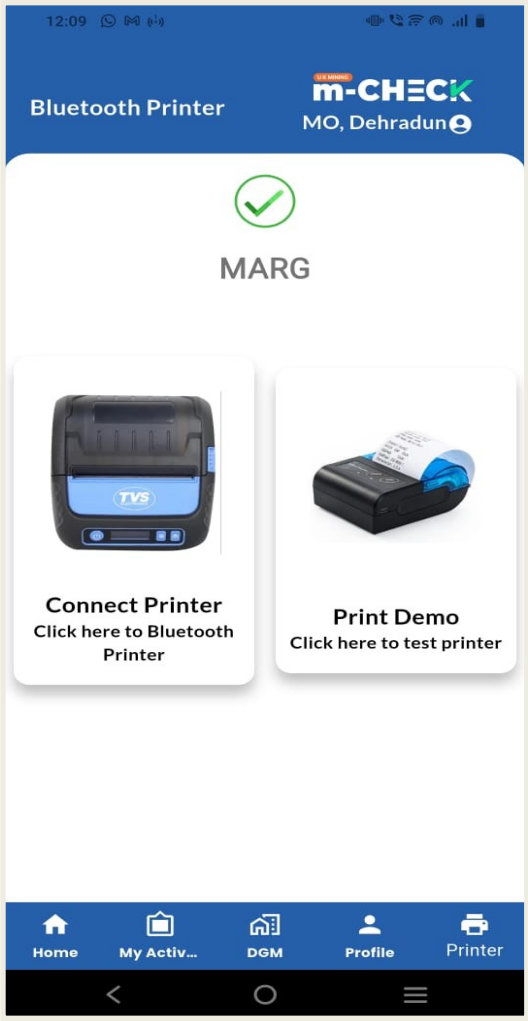
1. Navigation:

- From the footer menu at the bottom of the app, the user taps Profile.
- This opens the Profile screen.
- Profile Screen Display:
- Shows saved details of the logged-in user:
- Name (MO-Dehradun)
- Role (MO)
- Email (e.g., test@gmail.com)
- Mobile (8574674288)
- City (Dehradun)
- Designation (Mining Officer)
- District (Dehradun)

2. Actions Available:

- Update Profile User can edit their details like mobile, email, or other fields and save changes.
- Log Out User can exit the session and log out of the application.

7.0 Printer



Purpose of the Bluetooth Printer Screen

The purpose of this screen is to enable users to connect their mobile device with a Bluetooth printer and verify the connection by taking a demo print. This ensures that the printer is properly paired and ready to generate physical copies of inspection reports, challans, or receipts during field operations.

1. Navigation

- User goes to the **footer menu**.
- Clicks on the **"Printer"** icon.
- System redirects to the **Bluetooth Printer screen**.

2. Printer Connection

- The screen shows available Bluetooth printer(s).
- User taps **"Connect Printer"** option.
- System tries to connect to the selected printer (e.g., MARG).
- Once connected, a **green check mark** confirms the successful connection.

3. Print Testing

- After connection, the user taps **"Print Demo"** option.
- System sends a **test receipt/printout** to validate connection and printer functionality.