

## JKC DLR

### **Problem Statement:**

The existing land record management system of JK Cement Limited and its subsidiaries relies on physical paper records, which have become cumbersome and inefficient for a fast-growing industry embracing Industry 4.0. These paper records create challenges in maintaining, updating, and accessing essential land data. Each land record is associated with specific data, and this information needs to be preserved to avoid future confusion and streamline the land management system. This traditional approach incurs high record management costs, hinders operational efficiency, and lacks transparency.

### **Solution:**

To address the problem of land record data management, JK Cement Limited should transition to a Land Data Digitization approach, which involves the following solutions:

#### **Development of a Mobile Application/Website:**

Create a software-based application (mobile app or website) designed to manage and access land records digitally. This application should be user-friendly, providing easy access to all land-related documents and information.

Implement a secure access-controlled system to ensure authorized personnel can view the records. This will enhance data security and privacy.

#### **Transition to Paperless Records:**

Digitize and maintain all relevant land documents online, eliminating the need for physical paper records. This includes land records, asset information, structures, and geo-tagging data.

Ensure data is regularly updated and accurate to reflect the current state of land assets. Implement a version control system to track changes and updates.

## **Admin / Land Manager Web Application**

### **User Stories**

**Use Case 1:** User Log In

**Actor:** Land Manager/Admin

#### **Preconditions:**

The digital land data management system is accessible via the mobile application or website.

The Land Manager/Admin has a valid user account registered in the system.

**Description:** A registered user logs into their JKC account.

#### **Flow:**

- User launches the Jkc Web app.
- User selects the login option.
- User provides their registered email and password.

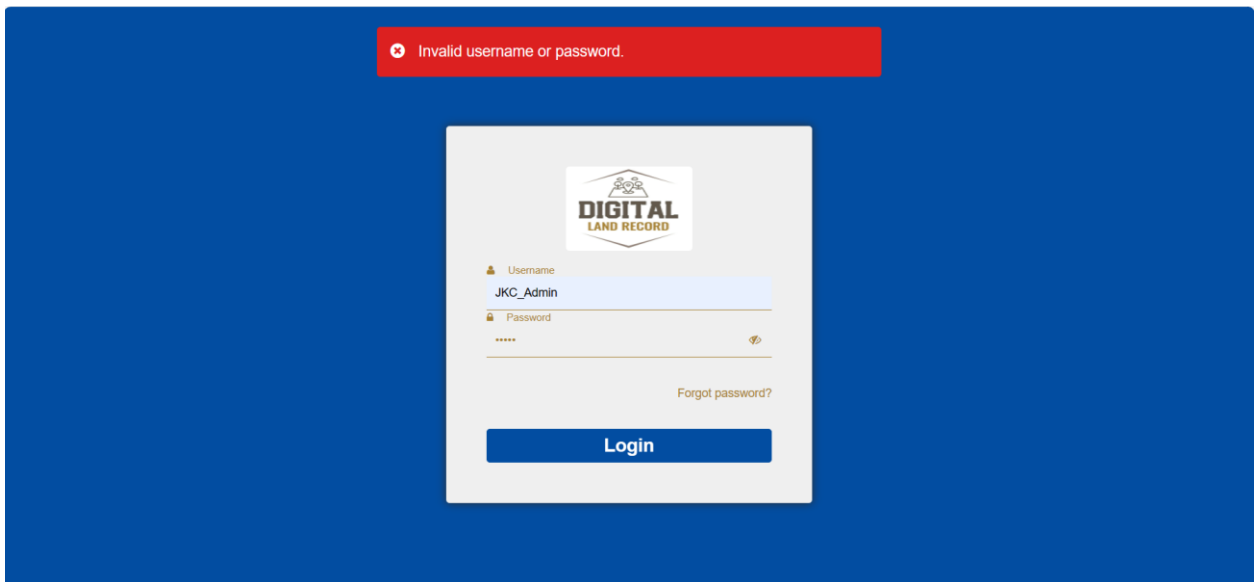
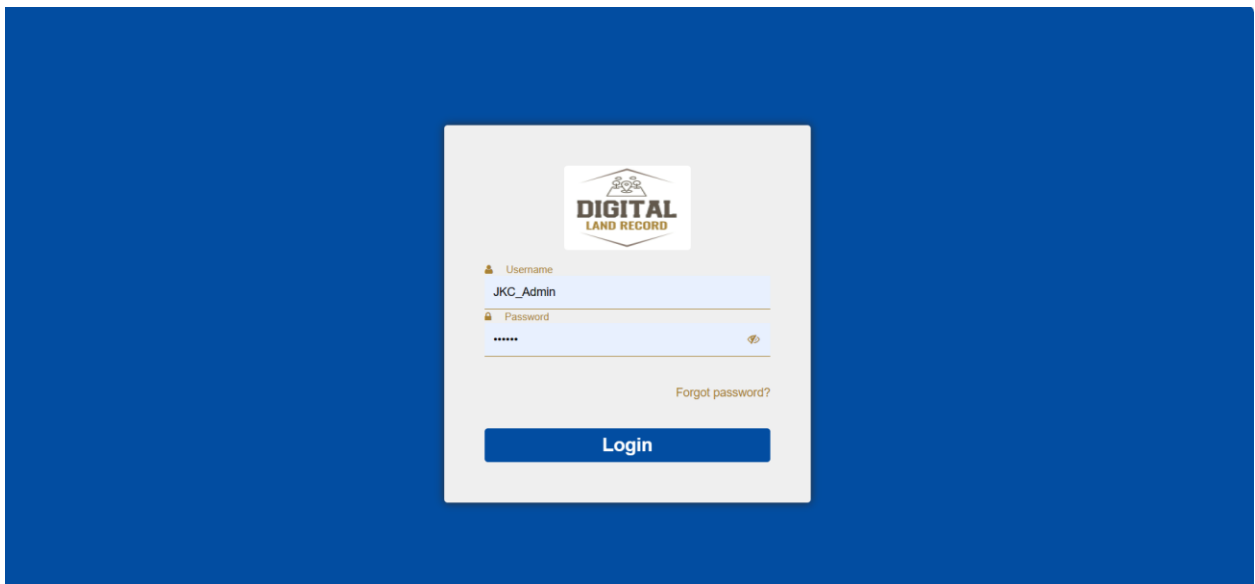
- The system validates the credentials.
- Upon successful validation, the user is logged into the app.

**Alternative Flow:**

If login fails (e.g., incorrect email or password), the system displays an error message and allows the user to attempt login again.

**Postconditions:**

Admin will Login to new application and can view all dashboard screen.



## **Use Case 2: Forgot Password**

**Actor:** App User (Land Manager/Admin)

**Description:** The Land Manager/Admin initiates the process to reset their password when they have forgotten their login credentials.

### **Preconditions:**

The digital land data management system is accessible via the mobile application or website.

The Land Manager/Admin has a valid user account registered in the system.

### **Flow:**

- The Land Manager/Admin, unable to recall their password, navigates to the login page of the digital land data management system.
- On the login page, the Land Manager/Admin selects the "Forgot Password" or "Reset Password" option. This option is typically a link or button displayed on the login screen.
- The system presents a password reset form that prompts the Land Manager/Admin to enter their registered email address associated with their user account.
- The Land Manager/Admin enters their email address and submits the form.
- The system sends a password reset link to the provided email address. This email includes a unique and time-limited token.
- The Land Manager/Admin checks their email and clicks on the password reset link.
- The link directs the Land Manager/Admin to a password reset page within the system, where they can enter a new password.
- The Land Manager/Admin enters a new password, following any specified password strength requirements.
- After submitting the new password, the system validates and updates the password for the user's account.

### **Alternate Flow:**

If the user enters an email address that is not associated with a registered user account, the system displays an error message indicating that no account with that email address exists. The Land Manager/Admin is prompted to check the email address and try again.

### **Postconditions:**

After successfully resetting the password, the Land Manager/Admin can log in with their new password as described in the "User Login" use case.

The Land Manager/Admin should receive an email confirmation that their password has been successfully reset.

This use case outlines the process for a user to reset their password when they have forgotten it, ensuring that they can regain access to the digital land data management system.

## Forgot Password

### **Use Case 3:** Dashboard - View Land Records Summary

**Actor:** Administrator/Land Manager (Admin/Land Manager)

**Description:** The administrator accesses the Admin Dashboard to view a summary of all land records, their details, and associated counts in both tabular and graphical formats for effective monitoring and management.

**Preconditions:**

The administrator is logged into the digital land data management system as an authorized administrator.

**Flow:**

- The administrator logs into the system and is directed to the Admin Dashboard.
- On the Admin Dashboard, the system provides options for viewing land records summaries.
- The administrator selects the "View Land Records Summary" option.
- The system generates a tabular summary of all land records, displaying details such as land parcel IDs, ownership, location, and other relevant information. The table also includes counts of land records by various criteria (e.g., by location, owner, asset type).
- The administrator can interact with the tabular summary, sorting, filtering, or searching for specific records as needed.
- In addition to the tabular summary, the system provides graphical representations of the data. The administrator can select the type of graph they prefer, such as bar charts, pie charts, or line graphs.
- The graphical representations visually depict the distribution of land records based on different categories, making it easier for the administrator to grasp the overall land data situation.

**Alternate Flow:**

If the Email does not exist then the user will not be get email.


## Postconditions:

The administrator has successfully viewed a comprehensive summary of all land records, their details, and associated counts.


The administrator can use this summary for informed decision-making and monitoring of land data management within JK Cement Limited.

This use case describes the process by which an administrator accesses the Admin Dashboard to view a detailed summary of all land records, presented in both tabular and graphical formats for better understanding and management.


SS
Dashboard Select JKC Location ▼




**6**  
JKC Locations



**43492**  
Hectare  
Total Area



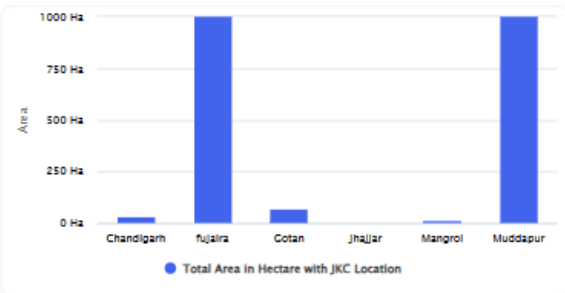
**15**  
Cr.  
Total Cost



**43480**  
Hectare  
Recently added Area

**Recently Added Lands** 0 ▼ Total Lands: 55

Land Name	Asset Number	Land Type
Pooja Palce	NB-Sahdwal-237-8320 23	Industrial
Gabar singh Land	GO-Haryana-28090sdi 23	Mining Land- Govt
Gaurav Land	GO-gunji swag-129duo 0932	Industrial
Tabish Land	GO-mudpura-238900w eui	Plant Land



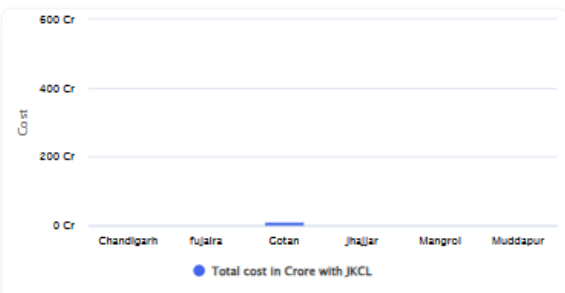
● Total Area In Hectare with JKC Location

1 to 4 of 42 items < 1 2 3 4 ... 11 >

+ New Land Record

**Latest Survey**

Land Name	Surveyed By	Surveyed on	Status
Panna	JKC Surveyor	7 Sep 2023 14:38	Record Submitted
Katni Plant	JKC Surveyor	6 Sep 2023 14:13	Approved
Testing	JKC Surveyor	25 Aug 2023 10:59	Record Submitted
Ujjani	JKC Surveyor	23 Aug 2023 13:16	Record Submitted



● Total cost In Crore with JKCL

1 to 4 of 8 items < 1 2 >

#### **Use Case 4: Add Land Record**

**Actor:** Land Manager/Admin

**Description:** The Land Manager/Admin adds a new land record to the digital land data management system, providing essential information about a newly acquired or existing land asset.

#### **Preconditions:**

The Land Manager/Admin is logged into the digital land data management system.

The Land Manager/Admin has appropriate permissions to add new land records.

#### **Flow:**

- The Land Manager/Admin navigates to the dashboard of the digital land data management system.
- Within the dashboard, the system provides an option to "Add New Land Record."
- The Land Manager/Admin selects the "Add New Land Record" option.
- The system presents a data entry form with fields to capture information about the land record. These fields may include but are not limited to:
  - Land parcel ID
  - Ownership details
  - Location (e.g., coordinates or address)
  - Land size and dimensions
  - Date of acquisition
  - Associated assets and structures
  - Any relevant documentation or files
  - The Land Manager/Admin fills in the required information in the data entry form. Depending on system requirements, some fields may be marked as mandatory.
- The system may provide options to upload any necessary documentation or files related to the land record. The Land Manager/Admin can upload these documents, such as deeds or surveys, as attachments.
- After entering the data and, if applicable, attaching documents, the Land Manager/Admin submits the new land record.
- The system validates the data to ensure accuracy and consistency, performing checks such as format validation and data integrity checks.

#### **Alternate Flow:**

If any mandatory fields are left blank or data entered does not meet validation criteria, the system displays error messages and prompts the Land Manager/Admin to correct the data.

#### **Postconditions:**

Upon successful submission, the new land record is added to the digital land data management system.

The Land Manager/Admin can now view, search, and manage the newly added land record along with existing records.

This revised use case accurately identifies the Land Manager/Admin as the actor responsible for adding new land records.



NOTE:- To successfully save land r

## New Land Record

Land Information ▼

---

Land UOM Info ▲

[+ Add UOM](#)

**Record 1**

UOM Area

Select UOM ▼

[Remove](#)

---

Land Geolocation ▼

---

Land Mutation Information ▼

---

Land Documents ▼

[↶ Back](#) [Save](#)

NOTE:- To successfully save land record details, you must provide information for the following mandatory fields: Land name, Financial year, Land manager, J/c plant, Village name, and New khasara no.

## New Land Record

Land Information ▼

---

Land UOM Info ▼

---

Land Geolocation ▲

[Enter Coordinates](#) [Add Manually](#) [Detect by GPS](#)

Latitude \* Longitude \*

Coordinates \*

---


Land Mutation Information ▼

---

Land Documents ▼

[↶ Back](#) [Save](#)





Land Information ▼

Land UOM Info ▼

Land Geolocation ▼

Land Mutation Information ▲

Previous Owner Name \*  Previous Owner Mobile Number

Previous Owner Address  Previous Owner Email


Aadhaar Card Number \*  Pan Card Number \*

Is Mutation

No Record...

Land Documents ▼

[Back](#) [Save](#)



**New Land Record**

Land Information ▼

Land UOM Info ▼

Land Geolocation ▼

Land Mutation Information ▼

Land Documents ▲

[+ Add New Document](#)

**Record 1**

Document Number \*  Upload Document File

Document Name \*

[Remove](#) [Preview](#)

[Back](#) [Save](#)

## **Use Case 5: Land Record List**

**Actor:** Administrator/ Land Manager(Admin/Land Manager)

**Description:** The administrator accesses the "Land Record List" within the digital land data management system to view a comprehensive list of all entered land records.

### **Preconditions:**

The administrator is logged into the digital land data management system as an authorized administrator.

### **Flow:**

- The administrator logs into the system and is directed to the Admin Dashboard.
- Within the Admin Dashboard, the system provides an option for viewing the "Land Record List."
- The administrator selects the "Land Record List" option.
- The system generates a list of all land records, displaying essential details such as land parcel ID, ownership, location, land size, date of acquisition, and any other relevant information.
- The list provides the ability to view records in a paginated or scrollable format, allowing the administrator to browse through the records.
- The administrator can interact with the list by sorting records by different criteria (e.g., date of acquisition, ownership) and applying filters for specific land records.
- The system also includes an option for the administrator to conduct a search by entering keywords or criteria in a search field. The results display land records that match the search criteria.
- For each land record in the list, the administrator can select it to view additional details or take actions such as editing, updating, or deleting the record.
- User can also export all data in excel.

### **Alternate Flow:**

If no land records are found based on the applied filters or search criteria, the system informs the administrator that no matching records were found.

### **Postconditions:**

The administrator has successfully viewed a comprehensive list of all entered land records, enabling them to monitor, review, and manage land records effectively.

This use case outlines the process by which an administrator accesses the "Land Record List" within the digital land data management system, allowing them to view, sort, filter, search, and interact with all entered land records for efficient management.

### Land Record List

Total Area : 43492 ha

+ New Record

Export to Excel

Land Name	JKC Location	Total Surveys	Land Ownership Type	Land Type	Land Manager	No. of Documents
Pooja Palce	Gotan	0	Owned/Purchased	Industrial	JKC Land Manager	2
Gabar singh Land	Gotan	0	Owned/Purchased	Mining Land- Govt	JKC Land Manager	0
Gaurav Land	Gotan	0	Owned/Purchased	Industrial	JKC Land Manager	1
Tabish Land	Gotan	0	Owned/Purchased	Plant Land	JKC Land Manager	0
Anant Land	Gotan	0	Sale	Residential Land	JKC Land Manager	0
JKC Land	Gotan	0	Third Party Purchase	Mining Land- PVT	JKC Land Manager	0
JKC Land	Gotan	0	Leased	Mining Land- Govt	JKC Land Manager	0
Devra	Gotan	0	Owned/Purchased	Plant Land	JKC Land Manager	1
Devra	Mangrol	0	Owned/Purchased	Residential Land	JKC Land Manager	1
Koni	Mangrol	0	Owned/Purchased	Plant Land	JKC Land Manager	1

1 to 10 of 55 items

### Land Record List

Total Area : 43492 ha

Land Name	JKC Location	Total Surveys	Land Ownership Type	Land Type	Land Manager	No. of Documents
Pooja Palce	Gotan	0	Owned/Purchased	Industrial	JKC Land Manager	2
Gabar singh Land	Gotan	0	Owned/Purchased	Mining Land- Govt	JKC Land Manager	0
Gaurav Land	Gotan	0	Owned/Purchased	Industrial	JKC Land Manager	1
Tabish Land	Gotan	0	Owned/Purchased	Plant Land	JKC Land Manager	0
Anant Land	Gotan	0	Sale	Residential Land	JKC Land Manager	0
JKC Land	Gotan	0	Third Party Purchase	Mining Land- PVT	JKC Land Manager	0
JKC Land	Gotan	0	Leased	Mining Land- Govt	JKC Land Manager	0
Devra	Gotan	0	Owned/Purchased	Plant Land	JKC Land Manager	1
Devra	Mangrol	0	Owned/Purchased	Residential Land	JKC Land Manager	1
Koni	Mangrol	0	Owned/Purchased	Plant Land	JKC Land Manager	1

1 to 10 of 55 items

Downloads

- What do you want to do with LandRecord (2).xlsx?  
Open Save as
- What do you want to do with LandRecord (1).xlsx?  
Open Save as

[See more](#)

## **Use Case 6: User List Screen**

**Actor:** Administrator (Admin)

**Description:** The administrator accesses the "User List Screen" within the digital land data management system to view a comprehensive list of all registered users.

### **Preconditions:**

The administrator is logged into the digital land data management system as an authorized administrator.

### **Flow:**

- The administrator logs into the system and is directed to the Admin Dashboard.
- Within the Admin Dashboard, the system provides an option for viewing the "User List Screen."
- The administrator selects the "User List Screen" option.
- The system generates a list of all registered users, displaying essential user information such as usernames, names, contact information, and roles or permissions.
- The list provides the ability to view user records in a paginated or scrollable format, allowing the administrator to browse through the user list.
- The administrator can interact with the list by sorting users by different criteria (e.g., username, role) and applying filters to view users with specific roles or permissions.
- The system also includes a search option for the administrator to enter keywords or criteria in a search field. The results display users who match the search criteria.
- For each user in the list, the administrator can select a user record to view additional details or take actions such as editing user information, updating roles, or deactivating user accounts.
- Admin can also apply filter on the status of users
- Admin can also soft delete the user temporarily.

### **Alternate Flow:**

If no user records are found based on the applied filters or search criteria, the system informs the administrator that no matching user records were found.

### **Postconditions:**

The administrator has successfully viewed a comprehensive list of all registered users, enabling them to monitor, review, and manage user accounts effectively.

This use case outlines the process by which an administrator accesses the "User List Screen" within the digital land data management system, allowing them to view, sort, filter, search, and interact with all registered users for efficient user management.



## User List

Active Users

Search

Name	Username	Email	Mobile Number	Is Active
JKC Land Manager	JKC_LandManager	jkc_landmanager@gmail.com	4567867890	<input checked="" type="checkbox"/>
JKC Admin	JKC_Admin	jkc_admin@gmail.com	123456789	<input checked="" type="checkbox"/>
JKC ViewerOnly	JKC_ViewerOnly	JKCViewerOnly@gmail.com	123456789	<input checked="" type="checkbox"/>
JKC Surveyor	JKC_Surveyor	JKCSurveyor@gmail.com	123456789	<input checked="" type="checkbox"/>
User Test	User Test	usertest@gmail.com	9764531234	<input checked="" type="checkbox"/>
user Testing 04	usertesting04	usertesting04@gmail.com	111111111	<input checked="" type="checkbox"/>
role testing user 01	roletestinguser011	roletestinguser01@gmail.com	1111543534534	<input checked="" type="checkbox"/>
Anant Partap	Anant_Partap	anantpartap@gmail.com	9472064802	<input checked="" type="checkbox"/>
Misbah Tabis	mtabish.1997	mtabish.1997@gmail.com	8651233089	<input checked="" type="checkbox"/>
Masroor Tabish	masroor	danish@gmail.com	3241324312	<input checked="" type="checkbox"/>

1 to 10 of 32 items

< 1 2 3 4 >



## User List

Inactive Users

Search

Name	Username	Email	Mobile Number	Is Active
Test user	testuser01	testuser01@gmail.com	1234347891	<input type="checkbox"/>
Testing user	JKC_LandOwner	Jkclandowner@gmail.com	6753436734	<input type="checkbox"/>
Management	JKC_Management	Jkcmanager@gmail.com	7645238945	<input type="checkbox"/>
jk	JK	Jkcmanager@gmail	1234567883	<input type="checkbox"/>
Test	abc test	name.a@jkcement.com	123123	<input type="checkbox"/>

1 to 5 of 5 items

## **Use Case 7: Google Map Screen**

**Actor:** Administrator/Land Manager (Admin/Land Manager)

**Description:** The administrator accesses the "Google Map Screen" within the digital land data management system to visualize all registered landmarks and find nearby places using Google Maps.

### **Preconditions:**

The administrator is logged into the digital land data management system as an authorized administrator.

The system has integrated Google Maps functionality.

### **Flow:**

- The administrator logs into the system and is directed to the Admin Dashboard.
- Within the Admin Dashboard, the system provides an option to access the "Google Map Screen."
- The administrator selects the "Google Map Screen" option.
- The system loads a Google Map interface, displaying a map view that includes registered landmarks, such as land assets, structures, and other features.
- The map displays icons or markers representing registered landmarks, and the administrator can interact with these markers to view basic details or information about each landmark by clicking on them.
- The administrator can use standard Google Maps functionality, including zooming in and out, panning, and changing map layers to explore the geographical area where the landmarks are located.
- The system may also provide a search bar on the map interface, allowing the administrator to enter keywords or criteria to search for specific landmarks or nearby places.
- When searching for nearby places, the system uses location data and keywords to identify and display nearby businesses, landmarks, or services.
- The administrator can select a nearby place to view additional information and get directions if needed.

### **Alternate Flow:**

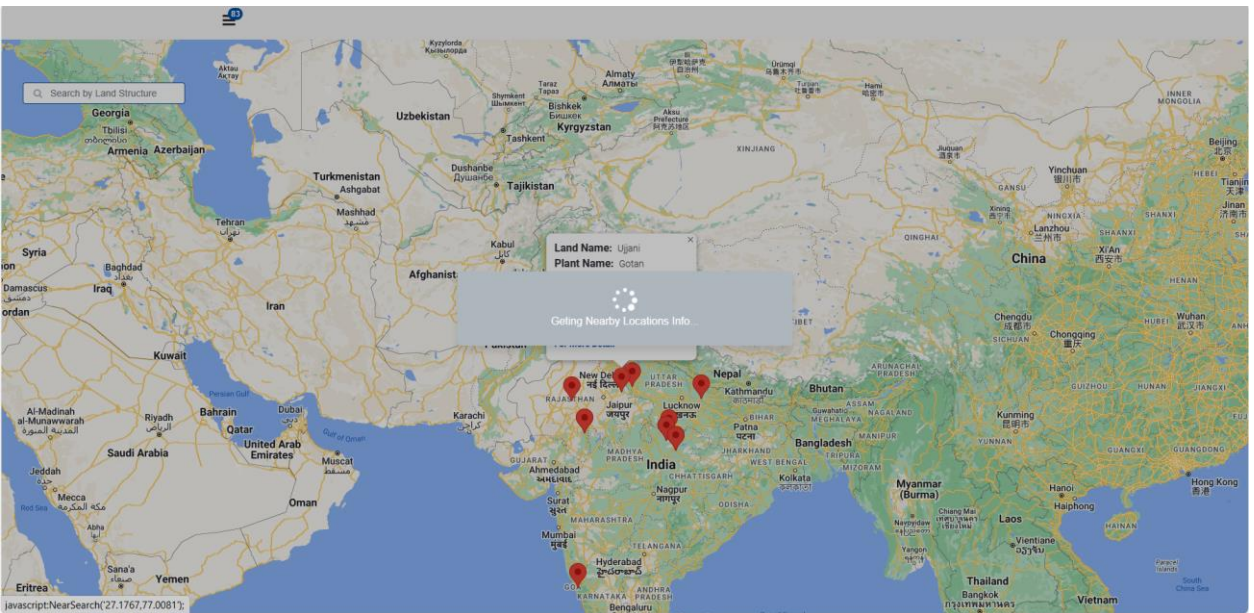
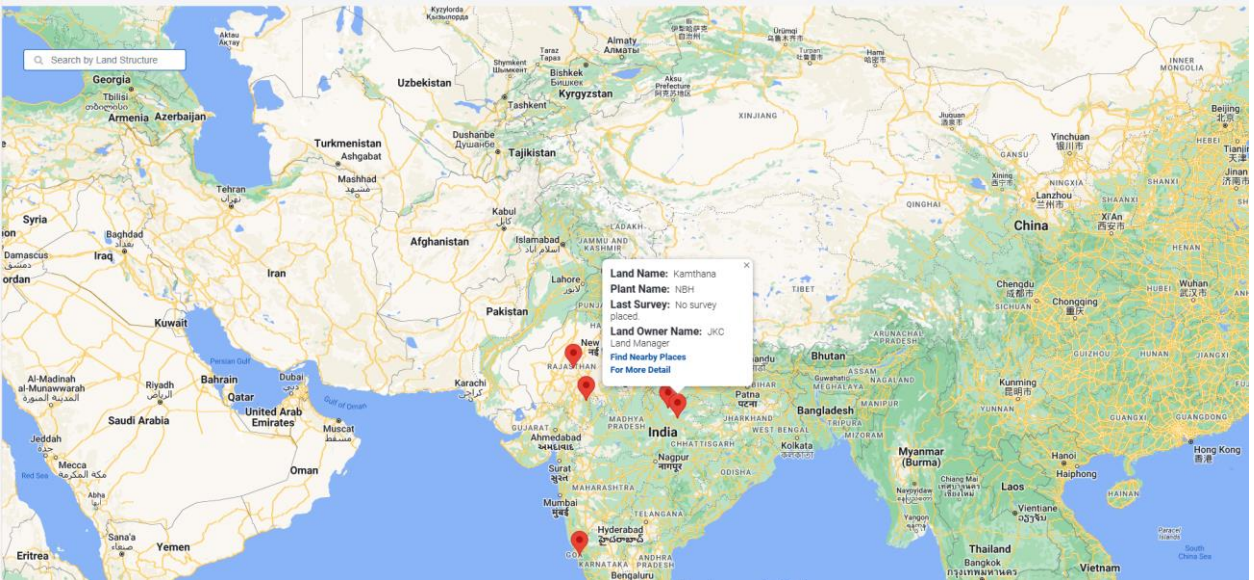
If there are no registered landmarks or if there are no nearby places found in the search, the map interface informs the administrator that no results were found.

### **Postconditions:**

The administrator has successfully accessed the "Google Map Screen," visualized all registered landmarks, and found nearby places using Google Maps, facilitating efficient geographical exploration and decision-making.

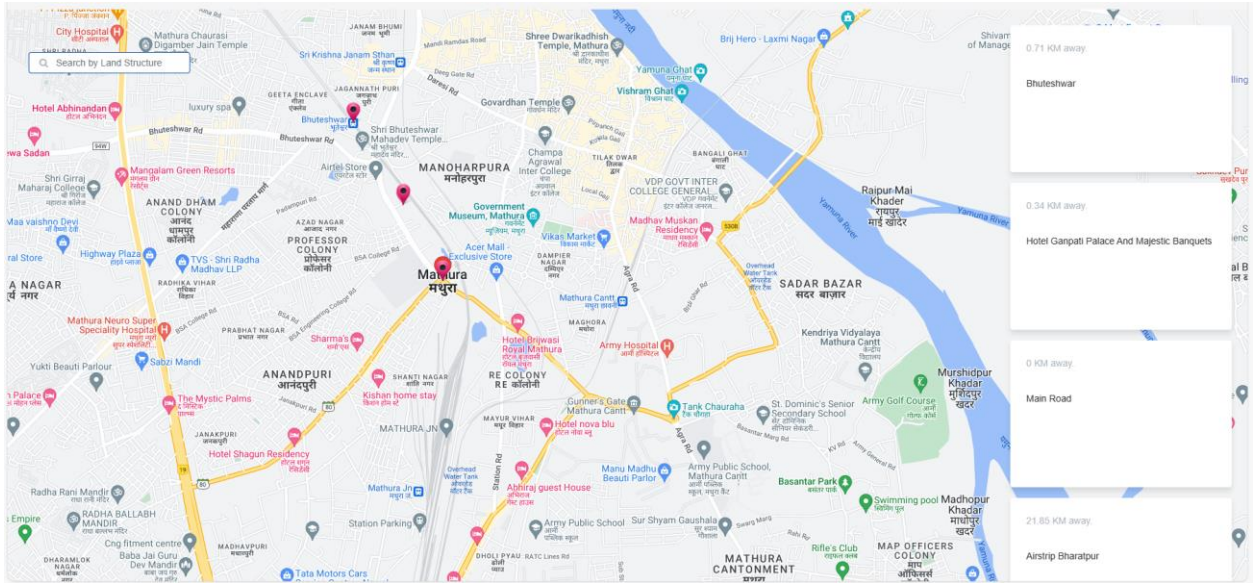
This use case outlines the process by which an administrator utilizes the "Google Map Screen" within the digital land data management system to visualize registered landmarks and find nearby places for effective monitoring and geographical analysis.





javascrpt:NearSearch(27.1767,77.0081);





## Use Case 8: Add New User and Assign User Role

**Actor:** Administrator (Admin)

**Description:** The administrator adds a new user to the digital land data management system and assigns a user role to the newly added user.

### Preconditions:

The administrator is logged into the digital land data management system as an authorized administrator.

The system allows user management and role assignment.

### Flow:

- The administrator navigates to the user management section within the system.
- Within the user management section, the system provides an option to "Add New User."
- The administrator selects the "Add New User" option.
- The system presents a user registration form with fields to capture essential user information, including but not limited to:
  - Username
  - Full name
  - Contact information (email, phone)
  - Password
  - Any other required user details
  - The administrator fills in the required user information in the registration form. They may also set a password for the new user or allow the system to generate one.
- After entering the user details, the system provides an option for the administrator to select or assign a user role for the new user. A user role defines the permissions and access levels for the user within the system.



- The system typically offers a list of predefined user roles (e.g., Admin, Land Data Manager) from which the administrator can choose. The list of available roles may vary depending on the system's design and configuration.
- The administrator selects the appropriate user role from the list and assigns it to the new user.
- The system performs necessary validation checks, such as ensuring the username is unique, before creating the new user account.
- After successful submission, the system creates the new user account with the provided user details and assigns the chosen user role.

#### Alternate Flow:

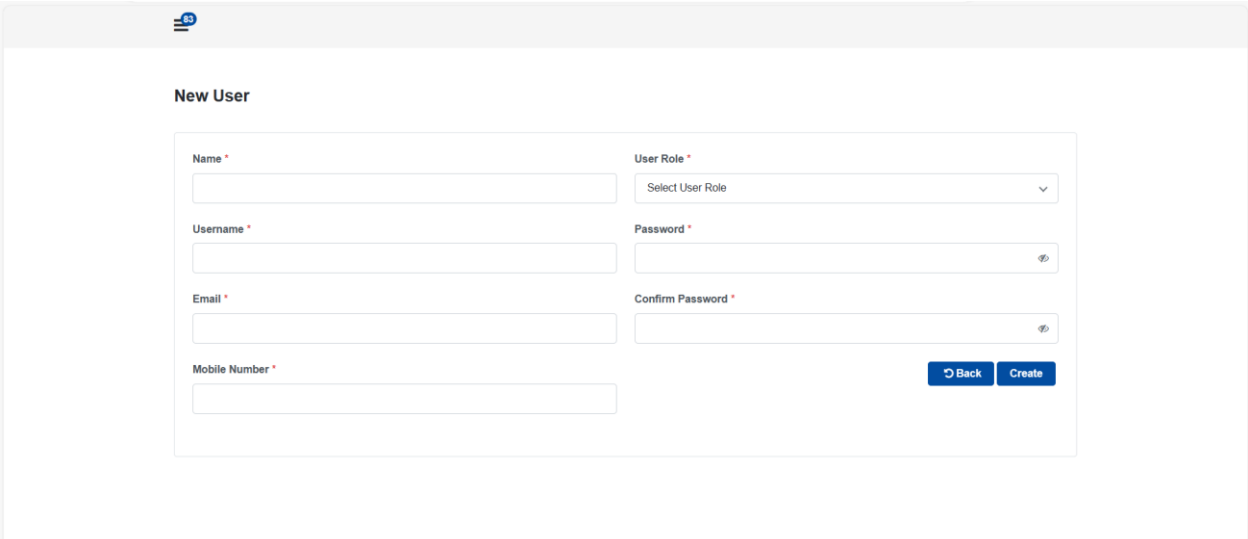
If any mandatory user registration fields are left blank or data entered does not meet validation criteria, the system displays error messages and prompts the administrator to correct the data.

#### Postconditions:

The administrator has successfully added a new user to the digital land data management system, and the new user is assigned the specified user role.

The new user can now log in with their credentials and access the system with the assigned permissions based on their role.

This use case outlines the process by which an administrator adds a new user and assigns a user role within the digital land data management system, ensuring accurate user information and access control.



The screenshot shows a web interface for creating a new user. At the top left, there is a logo consisting of three horizontal lines and a blue circle. Below the logo, the title "New User" is displayed. The form contains several input fields and a dropdown menu:

- Name \***: A text input field.
- Username \***: A text input field.
- Email \***: A text input field.
- Mobile Number \***: A text input field.
- User Role \***: A dropdown menu with the text "Select User Role" and a downward arrow.
- Password \***: A text input field with a small eye icon for toggling visibility.
- Confirm Password \***: A text input field with a small eye icon for toggling visibility.

At the bottom right of the form, there are two buttons: a blue button with a left-pointing arrow and the text "Back", and a blue button with the text "Create".

## **Use Case 9: Survey Request List**

**Actor:** Administrator (Admin)

**Description:** The administrator accesses the "Survey Request List" within the digital land data management system to view a comprehensive list of survey requests related to registered land records.

### **Preconditions:**

The administrator is logged into the digital land data management system as an authorized administrator.

The system has a survey request feature that allows users to request surveys related to land records.

### **Flow:**

- The administrator logs into the system and is directed to the Admin Dashboard.
- Within the Admin Dashboard, the system provides an option to access the "Survey Request List."
- The administrator selects the "Survey Request List" option.
- The system generates a list of survey requests associated with registered land records. Each entry in the list includes information about the request, such as the requesting user, the land record in question, the date of the request, and the status of the request (e.g., pending, approved, completed).
- The list provides the ability to view survey requests in a paginated or scrollable format, allowing the administrator to browse through the requests.
- The administrator can interact with the list by sorting requests by different criteria (e.g., date, status) and applying filters to view specific types of requests.
- The system may also provide a search option, allowing the administrator to enter keywords or criteria to search for specific survey requests.
- For each survey request in the list, the administrator can select a request to view additional details, including the specific land record associated with the request and any attached documentation or notes.
- Depending on the system's capabilities, the administrator may have the option to approve or reject survey requests directly from the "Survey Request List" screen.
- User can also Re-assign the requested surveyor.

### **Alternate Flow:**

If there are no survey requests found based on the applied filters or search criteria, the system informs the administrator that no survey requests matching the criteria were found.

### **Postconditions:**

The administrator has successfully accessed the "Survey Request List," allowing them to monitor, review, and manage survey requests related to registered land records effectively.

This use case outlines the process by which an administrator utilizes the "Survey Request List" within the digital land data management system to visualize and manage survey requests linked to registered land records for efficient survey coordination and decision-making.

**Survey Request List**

Search  Select a date  Select a date

Land Name	Surveyor Name	Request Type	Status	Requested by	Scheduled on	Requested on	Reason For Rej
Panna	JKC Surveyor	Random Survey	Request Accepted	JKC Admin	15 Sep 2023	7 Sep 2023 17:52	N/A
Panna	JKC Surveyor	Regular Survey	Record Submitted	JKC Admin	13 Sep 2023	7 Sep 2023 14:35	N/A
Katni Plant	JKC Surveyor	Regular Survey	Request Accepted	JKC Admin	22 Sep 2023	7 Sep 2023 13:01	N/A
katni	N/A	Random Survey	Draft	JKC Admin	22 Sep 2023	7 Sep 2023 12:21	N/A
Katni Plant	JKC Surveyor	Regular Survey	Approved	JKC Admin	29 Sep 2023	6 Sep 2023 14:08	N/A
Swaran	JKC Surveyor	Regular Survey	Surveyor Issue	JKC Land Manager	31 Aug 2023	25 Aug 2023 11:05	Not available on date
Ujjani	JKC Surveyor	Regular Survey	Record Submitted	JKC Admin	29 Aug 2023	23 Aug 2023 13:02	N/A
Testing	JKC Surveyor	Regular Survey	Record Submitted	JKC Admin	26 Aug 2023	23 Aug 2023 12:50	N/A
Mannat	JKC Surveyor	Random Survey	Rescheduled	JKC Admin	6 Sep 2023	23 Aug 2023 10:07	N/A
Testing	JKC Surveyor	Regular Survey	Approved	JKC Admin	23 Aug 2023	22 Aug 2023 15:17	N/A

1 to 10 of 12 items

< 1 2 >

## Use Case 10: Manage Survey Requests

**Actor:** User (Land Manager/Admin)

**Description:** The user (Land Manager /Admin) accesses the "Survey Request Management" feature within the digital land data management system to view survey request details, and add new survey requests.

### Preconditions:

The user (Land Data Manager) is logged into the digital land data management system.

The user has the necessary permissions to manage survey requests.

### Flow:

- The user navigates to the "Survey Request Management" section of the system.
- Within the "Survey Request Management" section, the user can see a list of existing survey requests, including details such as the requester's name, land record associated with the request, request date, and status (e.g., pending, approved, rejected).
- The user selects a specific survey request from the list to view detailed information, including the description of the survey request, any attached documents, and any comments or notes provided by the requester.
- The user has the option to approve or reject the selected survey request, depending on their evaluation. If the user chooses to approve the request, the status is updated to "approved," and the user can provide any additional comments or instructions.
- If the user decides to reject the request, the status is updated to "rejected," and the user can specify the reason for rejection in the comments section.
- The user also has the option to create a new survey request. To do so, the user clicks on the "New Survey Request" or "Add Request" button.
- The system presents a survey request form with fields for the user to enter information, such as the purpose of the survey, the land record related to the request, and any necessary attachments or documentation.

- After filling in the required information and attaching relevant files, the user submits the new survey request.
- The system assigns a "pending" status to the new request, and the request is added to the list of survey requests for administrator review.

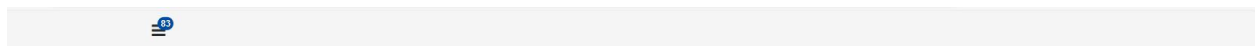
**Alternate Flow:**

If the user encounters any issues when creating a new survey request, the system displays error messages and prompts the user to correct the data.

**Postconditions:**

The user (Land Data Manager) has successfully managed survey requests within the system. This includes viewing request details, adding new survey requests, and approving or rejecting survey requests.

This use case outlines the process by which a user (Land Data Manager) interacts with the "Survey Request Management" feature, allowing them to manage existing survey requests, create new requests, and participate in the approval or rejection process.



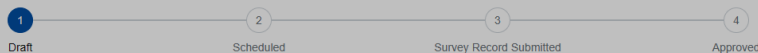
**New Survey Request**

Land Name \*

Survey Request Type \*

Date of Survey

[Back](#) [Save](#)



**Edit Survey Request**

Land Name \*

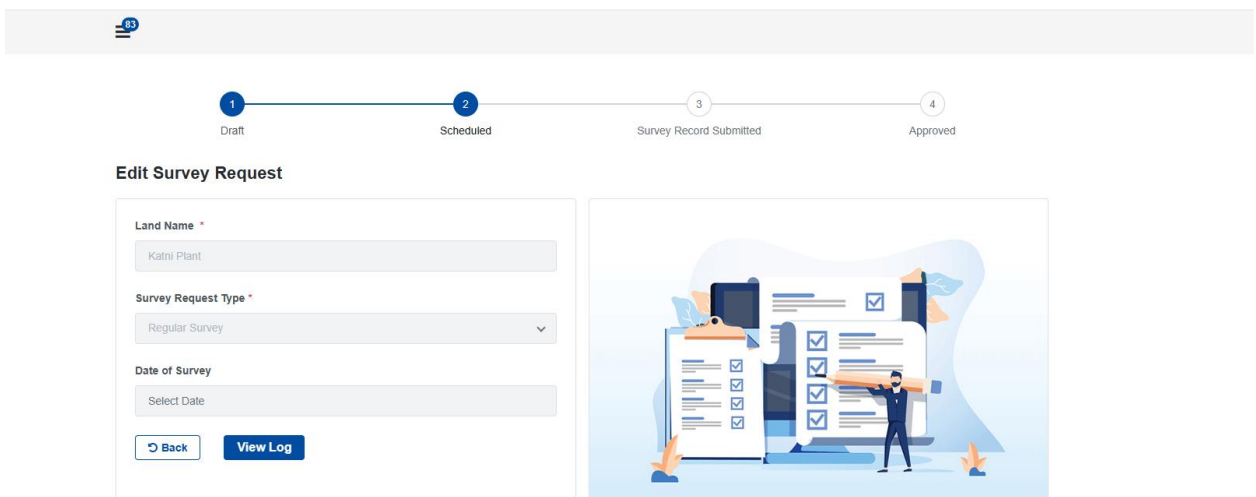
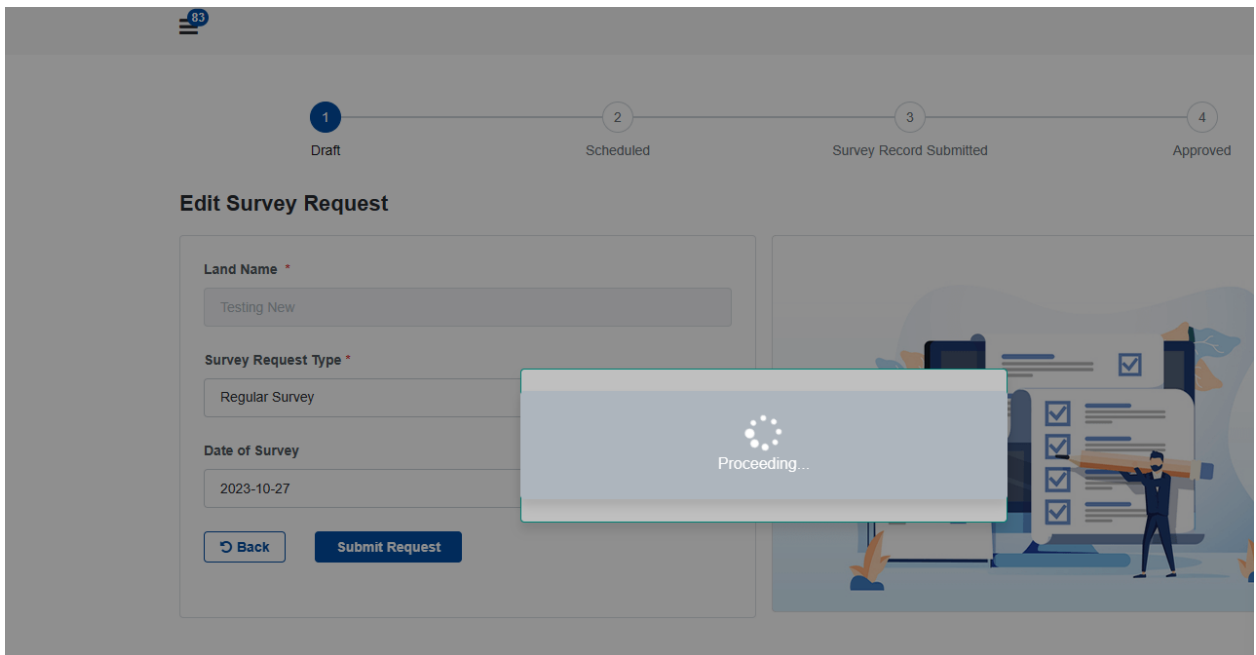
Survey Request Type \*

Date of Survey

[Back](#) [Submit Request](#)

Select Surveyor:

[Cancel](#) [Proceed](#)



### Use Case 11: Survey Record Screen

**Actor:** User (Land Manager/Admin)

**Description:** The user (Land Data Manager) accesses the "Survey Record Screen" within the digital land data management system to view detailed information about survey records related to registered land records.

**Preconditions:**

The user (Land Data Manager) is logged into the digital land data management system.

The system has a "Survey Record" feature that allows users to view survey records related to land records.

**Flow:**

- The user navigates to the "Survey Record Screen" within the system.
- Within the "Survey Record Screen," the system provides a list of survey records associated with registered land records.
- Each survey record in the list includes details such as the survey date, purpose of the survey, a brief description, and any relevant attached documentation.
- The user can select a specific survey record from the list to view additional details about that survey.
- The system displays a detailed view of the selected survey record, including:
  - The survey date
  - The purpose of the survey
  - A comprehensive description of the survey
  - Any documentation or files related to the survey, such as survey reports, or images
  - The user can interact with the survey record, which may include the ability to download attached documents, or view images and other details.
- The user has the option to navigate through a list of related land records, if applicable, by selecting land records that are associated with the survey.
- The system may also provide a search option, allowing the administrator to enter keywords or criteria to search for specific survey requests.
- The system also provide a search option, allowing the administrator to enter keywords or criteria to search for specific survey record.

**Alternate Flow:**

If there are no survey records associated with the selected land record or if there are no survey records available in the system, the "Survey Record Screen" may inform the user that no survey records were found.

**Postconditions:**

The user (Land Data Manager) has successfully accessed the "Survey Record Screen" and viewed all the details of survey records associated with registered land records, allowing them to review, analyze, and utilize survey data effectively.

This use case outlines the process by which a user (Land Data Manager) interacts with the "Survey Record Screen" within the digital land data management system to access comprehensive information about survey records related to land records.

## Survey Record List

Q Search

Land Name	Surveyed by	Last Survey Date	Approved Date	Status	Remarks
Testing	JKC Surveyor	25 Aug 2023 10:59	In Progress		jhgf
Katni Plant	JKC Surveyor	6 Sep 2023 14:13	6 Sep 2023 14:14		ryu
Swaran	JKC Surveyor	23 Aug 2023 13:04	25 Aug 2023 10:59		kjhgf
Mannat	JKC Surveyor	23 Aug 2023 12:53	In Progress		kjh
Sriram	JKC Surveyor	23 Aug 2023 12:31	In Progress		jhb
Panna	JKC Surveyor	7 Sep 2023 14:38	In Progress		ertyu
Ujjani	JKC Surveyor	23 Aug 2023 13:16	In Progress		uytre

1 to 7 of 7 items

## Survey Record List

Q anj

Land Name	Surveyed by	Last Survey Date	Approved Date	Status	Remarks
Katni Plant	JKC Surveyor	6 Sep 2023 14:13	6 Sep 2023 14:14		ryu
Swaran	JKC Surveyor	23 Aug 2023 13:04	25 Aug 2023 10:59		kjhgf
Mannat	JKC Surveyor	23 Aug 2023 12:53	In Progress		kjh
Panna	JKC Surveyor	7 Sep 2023 14:38	In Progress		ertyu
Ujjani	JKC Surveyor	23 Aug 2023 13:16	In Progress		uytre

1 to 5 of 5 items

**Use Case 12: View Survey Record Details****Actor:** User (Land Manager/Admin)

**Description:** The user (Land Manager/Admin) accesses the "View Survey Record Details" feature within the digital land data management system to view comprehensive details of a submitted survey record.

**Preconditions:**

The user (Land Manager/Admin) is logged into the digital land data management system.

The user has access to view survey records.

**Flow:**

- The user navigates to the section or menu of the system that provides access to survey records.
- Within the survey records section, the user is presented with a list of submitted survey records.

- The user selects a specific survey record from the list for which they wish to view detailed information.
- The system presents a detailed view of the selected survey record, providing a comprehensive overview of the survey.
- The survey record details may include the following information:
  - Survey ID or reference number
  - Date of the survey
  - Purpose and objectives of the survey
  - Description of the survey methodology and equipment used
  - Findings, observations, and measurements obtained during the survey
  - Any attached documentation, such as survey reports, maps, images, or other relevant files
  - Contact information for the surveyor or responsible personnel
- The user can interact with the survey record details, including the ability to:
  - View or download attached documents or files related to the survey.
  - Access additional information related to specific findings or measurements, if provided.

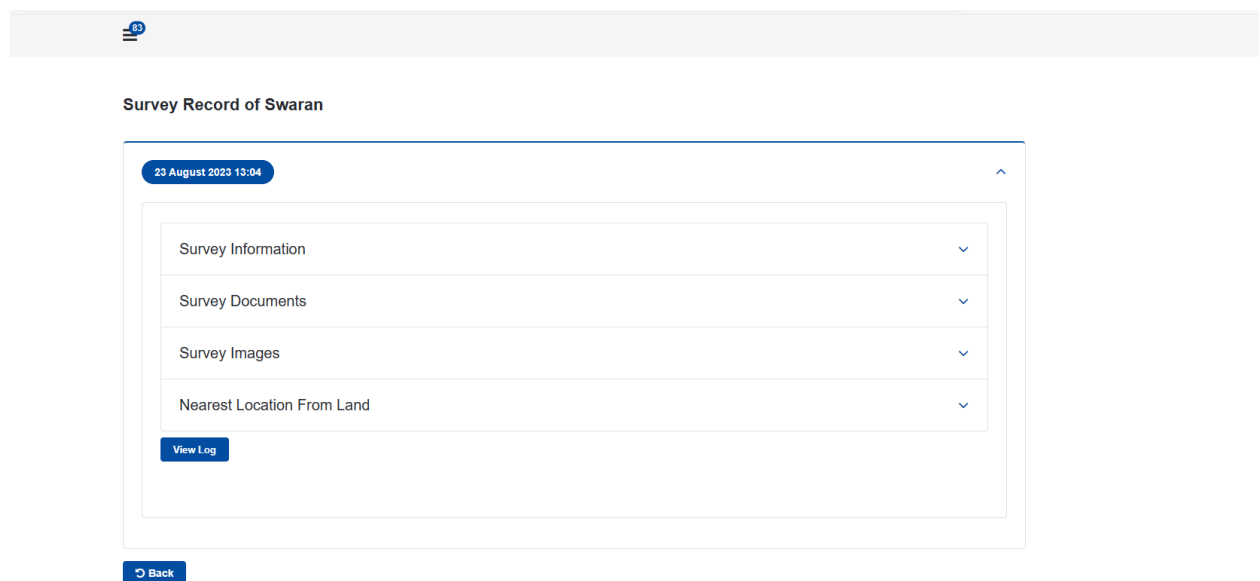
#### Alternate Flow:

If the selected survey record does not have any attached documentation or if there are no survey records available, the system may display a message indicating that no additional details or documents are available for that survey.

#### Postconditions:

The user (Land Data Manager) has successfully accessed and viewed the detailed information of a submitted survey record, allowing them to review survey findings, reports, and associated documentation effectively.

This use case outlines the process by which a user (Land Data Manager) interacts with the "View Survey Record Details" feature in the digital land data management system, enabling them to access comprehensive information about a specific survey record for analysis and decision-making.







## Survey Record of Swaran

23 August 2023 13:04

### Survey Information

Surveyed By	JKC Surveyor	Remarks	kjhgf
Scheduled on	24/08/2023 12:00 am	Mention Concerns	kjhgf
Surveyed on	23/08/2023 01:04 pm		

Survey Documents

Survey Images

Nearest Location From Land

[View Log](#)



## Survey Record of Swaran

23 August 2023 13:04

Survey Information

### Survey Documents

**Record 1**

Document Number	876544567	Remarks	
Document Name	JKC's Observation Points Response.docx		

[Preview](#)

Survey Images

Nearest Location From Land

[View Log](#)



### Survey Record of Swaran

23 August 2023 13:04

Survey Information

Survey Documents

Survey Images



Nearest Location From Land

View Log

Image Caption \*

luyfd

Additional Information

Back

Survey Documents

Survey Images

Nearest Location From Land

Railway Station Name	Railway Station Distance
luyfr	23
Bus Stop Name	Bus Stop Distance
kjhgfj	32
Air Port Name	Air Port Distance
kjhgfds	66
Hotel Name	Hotel Distance
mjhgfds	676
Highway Name	High Distance
kjhgfj	86

View Log

Back

### **Use Case 13: View Log Details**

**Actor:** Administrator (Admin)

**Description:** The administrator accesses the "View Log Details" feature within the digital land data management system to review logs of updates and changes made to records.

#### **Preconditions:**

The administrator is logged into the digital land data management system as an authorized administrator.

The system has a logging mechanism in place to record updates and changes to records.

#### **Flow:**

- The administrator navigates to the section or menu of the system that provides access to log details.
- Within the log details section, the system displays a list of log entries that record updates and changes made to records within the system.
- Each log entry includes information such as:
  - Date and time of the update
  - User or entity that initiated the update
  - Type of update (e.g., addition, modification, deletion)
  - Record affected by the update
  - Details of the update, including specific changes made
- The administrator can select a specific log entry from the list to view detailed information about that update.
- The system presents a detailed view of the selected log entry, providing a comprehensive overview of the update or change made to the record.
- The log entry details may include:
  - A record of the data before and after the update.
  - Any attached documentation or files related to the update.
  - Information about the reason for the update or any comments provided by the user who initiated the change.
- The administrator can interact with the log entry details, including the ability to:
  - Review the history of changes made to the record over time.
  - Access attached documents or files related to the update.
  - View or download specific versions of the record before and after the update.

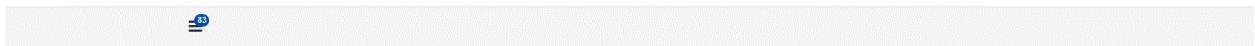
#### **Alternate Flow:**

If there are no log entries available, the system may inform the administrator that no log details are currently recorded.

#### **Postconditions:**

The administrator has successfully accessed and reviewed log details of updates and changes made to records within the digital land data management system, allowing them to track and monitor modifications to records.

This use case outlines the process by which an administrator interacts with the "View Log Details" feature in the digital land data management system, enabling them to access comprehensive information about updates and changes to records for auditing and monitoring purposes.



Survey Record Log Detail of Swaran ⌵

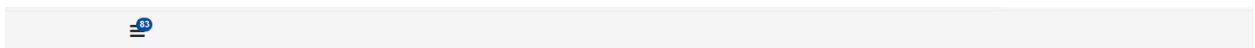
---

Survey Record Image Log Detail of Swaran ⌵

---

Survey Record Document Log Detail of Swaran ⌵

[⏪ Back](#)



Survey Record Log Detail of Swaran ⌵

Form Type	Record Id	Field Name	Old Value	New Value	Modified By	Modified on
No items to show...						

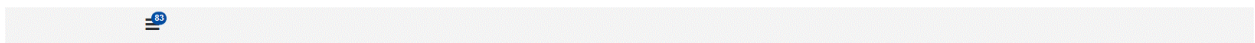
---

Survey Record Image Log Detail of Swaran ⌵

---

Survey Record Document Log Detail of Swaran ⌵

[⏪ Back](#)



Survey Record Log Detail of Swaran ⌵

---

Survey Record Image Log Detail of Swaran ⌵

Form Type	Record Id	Field Name	Old Value	New Value	Modified By	Modified On
No items to show...						

---

Survey Record Document Log Detail of Swaran ⌵

[⏪ Back](#)



Survey Record Log Detail of Swaran



Survey Record Image Log Detail of Swaran



Survey Record Document Log Detail of Swaran



Form Type

Record Id

Field Name

Old Value

New Value

Modified By

Modified On

No items to show...

[Back](#)

# Surveyor mobile App

## User Stories

**Use Case 1:** User Log In

**Actor:** Surveyor

**Preconditions:**

The digital land data management system is accessible via the mobile application or website.

The Surveyor has a valid user account registered in the system.

**Description:** A registered user logs into their JKC account.

**Flow:**

- User launches the Jkc Web app.
- User selects the login option.
- User provides their registered email and password.
- The system validates the credentials.
- Upon successful validation, the user is logged into the app.


**Alternative Flow:**

If login fails (e.g., incorrect email or password), the system displays an error message and allows the user to attempt login again.


**Postconditions:**

Admin will Login to new application and can view all dashboard screen.



 Username \*

JKC\_Admin

 Password

.....



[Forgot password?](#)

Login



✖ Invalid username or password.



👤 Username \*

JKC\_Admin

🔒 Password

.....



[Forgot password?](#)

Login

## **Use Case 2: Forgot Password**

**Actor:** App User (Land Manager/Admin)

**Description:** The Surveyor initiates the process to reset their password when they have forgotten their login credentials.

### **Preconditions:**

The digital land data management system is accessible via the mobile application or website.

The Surveyor has a valid user account registered in the system.

### **Flow:**

- The Land Data Manager, unable to recall their password, navigates to the login page of the digital land data management system.
- On the login page, the Surveyor selects the "Forgot Password" or "Reset Password" option. This option is typically a link or button displayed on the login screen.
- The system presents a password reset form that prompts the Surveyor to enter their registered email address associated with their user account.
- The Surveyor enters their email address and submits the form.
- The system sends a password reset link to the provided email address. This email includes a unique and time-limited token.
- The Surveyor checks their email and clicks on the password reset link.
- The link directs the Surveyor to a password reset page within the system, where they can enter a new password.
- The Surveyor enters a new password, following any specified password strength requirements.
- After submitting the new password, the system validates and updates the password for the user's account.

### **Alternate Flow:**

If the Surveyor enters an email address that is not associated with a registered user account, the system displays an error message indicating that no account with that email address exists. The Surveyor is prompted to check the email address and try again.

### **Postconditions:**

After successfully resetting the password, the Surveyor can log in with their new password as described in the "User Login" use case.

The Land Manager/Admin should receive an email confirmation that their password has been successfully reset.

This use case outlines the process for a user to reset their password when they have forgotten it, ensuring that they can regain access to the digital land data management system.



## Forgot Password

Enter Email

Send  
Password

### **Use Case 3:** Surveyor Dashboard - View Survey Requested Landmarks on Google Map

**Actor:** Surveyor

**Description:** The surveyor accesses the "Surveyor Dashboard" within the digital land data management system to visualize all survey requested landmarks on Google Maps, facilitating efficient survey planning and coordination.

**Preconditions:**

The surveyor is logged into the digital land data management system.

The system has integrated Google Maps functionality.

There are active survey requests associated with specific land records.

**Flow:**

- The surveyor logs into the system and is directed to the Surveyor Dashboard.
- Within the Surveyor Dashboard, the system provides an option to "View Survey Requested Landmarks on Map."
- The surveyor selects the "View Survey Requested Landmarks on Map" option.
- The system loads a Google Map interface, displaying a map view that includes markers representing survey requested landmarks.
- The map markers correspond to survey requests and are placed at the locations of the requested land records.
- The surveyor can interact with the map, using standard Google Maps functionality such as zooming in and out, panning, and changing map layers.
- By clicking on a map marker, the surveyor can view details of the associated survey request, including the survey purpose, request date, and any specific notes or instructions provided by the requester.
- The surveyor can select and prioritize which survey requests they intend to address based on the map view.
- The system may also provide a search option, allowing the surveyor to filter or search for specific survey requests by keywords, land parcel IDs, or other criteria.
- Surveyor can also see the notifications at dashboard.

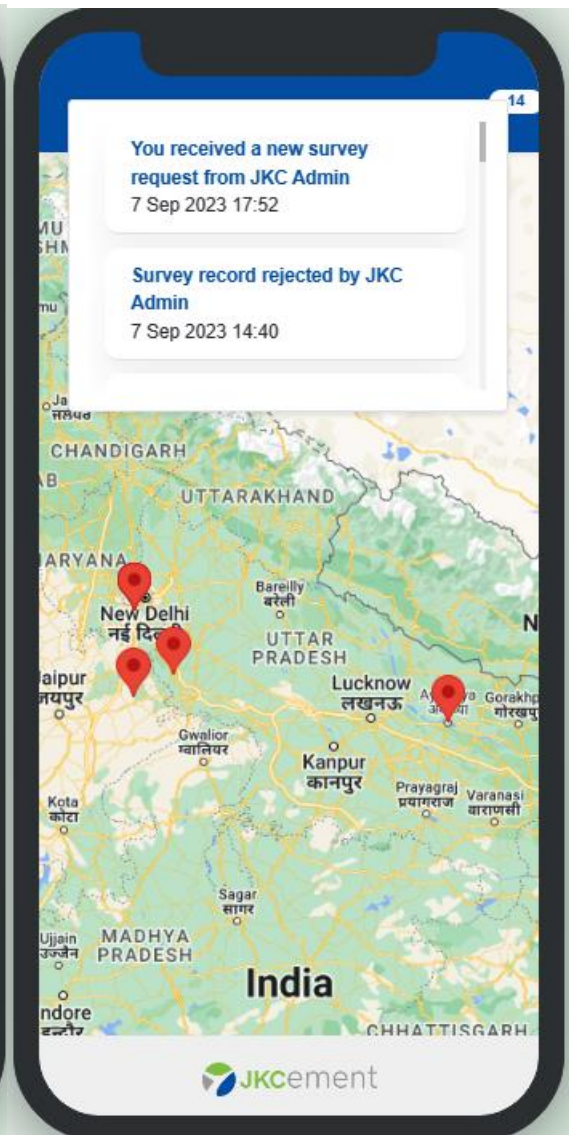
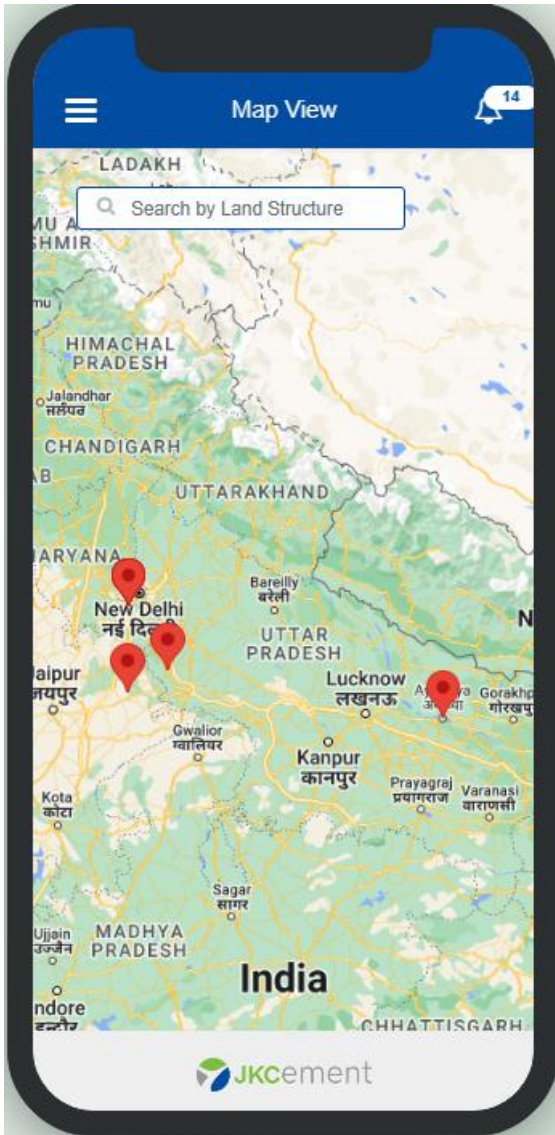
**Alternate Flow:**

If there are no active survey requests or no associated landmarks on the map, the system informs the surveyor that no survey requests are currently available for mapping.

**Postconditions:**

The surveyor has successfully accessed the "Surveyor Dashboard," visualized survey requested landmarks on Google Maps, and gained insights into the location and details of active survey requests for effective planning and coordination.

This use case outlines the process by which a surveyor utilizes the "Surveyor Dashboard" to view survey requested landmarks on Google Maps within the digital land data management system, aiding in the planning and execution of surveys.



#### **Use Case 4: Land Record Detail for Surveyor**

**Actor:** Surveyor

**Description:** The surveyor accesses the "Land Record Detail" feature within the digital land data management system to view comprehensive information about a specific land record requested for survey.

**Preconditions:**

The surveyor is logged into the digital land data management system.

The surveyor has access to view land record details.

There is an active survey request associated with a specific land record.

**Flow:**

- The surveyor navigates to the section or menu of the system that provides access to land record details.
- Within the land record details section, the system provides a list of land records associated with active survey requests.
- The surveyor selects a specific land record from the list for which they wish to view detailed information.
- The system presents a detailed view of the selected land record, providing comprehensive information about the land.
- The land record details may include the following information:
  - Land parcel ID
  - Ownership details
  - Location (e.g., coordinates or address)
  - Land size and dimensions
  - Date of acquisition
  - Associated assets and structures
  - Any relevant documentation or files related to the land record.
- The surveyor can interact with the land record details, including the ability to:
  - View or download attached documents or files related to the land record.
  - Access additional information related to specific assets or structures on the land, if provided.

**Alternate Flow:**

If there are no active survey requests associated with the selected land record or if there are no land records available, the system may inform the surveyor that no details are currently available.

**Postconditions:**

The surveyor has successfully accessed and viewed the detailed information of a requested land record, allowing them to prepare for the survey and better understand the land's characteristics and attributes.

This use case outlines the process by which a surveyor interacts with the "Land Record Detail" feature in the digital land data management system, enabling them to access comprehensive information about a specific land record requested for survey.



### Land Record

Land Information ▼

Land UOM Info ▼

Land Geolocation ▼

Land Mutation Information ▼

Land Documents ▼

[↶ Back](#)

## **Use Case 5: List of Requested Survey Requests with Approval**

**Actor:** Surveyor

**Description:** The surveyor accesses the "List of Requested Survey Requests with Approval" feature within the digital land data management system to view a comprehensive list of survey requests assigned to them and to approve or reject these requests.

### **Preconditions:**

The surveyor is logged into the digital land data management system.

The surveyor has been assigned specific survey requests that require approval or rejection.

### **Flow:**

- The surveyor navigates to the section or menu of the system that provides access to their assigned survey requests requiring approval.
- Within the assigned survey requests section, the system displays a list of survey requests that have been assigned to the surveyor and are in need of approval.
- Each entry in the list includes details about the survey request, such as the land record associated with the request, the request date, the status (e.g., pending), and the purpose of the survey.
- The surveyor can select a specific survey request from the list to view additional details, including the specific requirements, instructions, and any attached documentation provided by the requester.
- The system provides options for the surveyor to take actions on the assigned survey requests, including:
  - Approve the request: If the surveyor approves the request, the system updates the request status to "approved." The surveyor can also provide additional comments or notes if necessary.
  - Reject the request: If the surveyor rejects the request, the system updates the request status to "rejected" and prompts the surveyor to provide a reason or comments for the rejection.
- The surveyor can interact with the list by sorting the survey requests by different criteria (e.g., date, status) and applying filters to view specific types of survey requests.
- The system may also provide a search option, allowing the surveyor to enter keywords, land parcel IDs, or other criteria to search for specific survey requests.

### **Alternate Flow:**

If there are no survey requests assigned to the surveyor requiring approval, the system may inform them that no such requests are currently available.

### **Postconditions:**

The surveyor has successfully accessed and reviewed the list of requested survey requests requiring approval and has taken actions to either approve or reject these requests.

This use case outlines the process by which a surveyor interacts with the "List of Requested Survey Requests with Approval" feature in the digital land data management system, allowing them to view, evaluate, and respond to survey requests assigned to them.





## Survey Request List



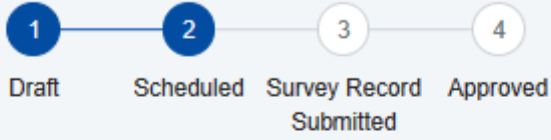
Land Name	<b>Panna</b>
Surveyor Name	JKC Surveyor
Status	<b>Request Accepted</b>
Requested On	7 Sep 2023 17:52
Scheduled On	15 Sep 2023

Land Name	<b>Panna</b>
Surveyor Name	JKC Surveyor
Status	<b>Record Submitted</b>
Requested On	7 Sep 2023 14:35
Scheduled On	13 Sep 2023
Reason For Rejection	<b>jhgfds</b>

Land Name	<b>Katni Plant</b>
-----------	--------------------



## Survey Request



Land Name :

Panna

Survey Request Type

Random Survey

Date Of Survey :

15/09/2023 12:00 am

Back

Add Survey Record



## Survey Request List

Land Name	Testing
Surveyor Name	JKC Surveyor
Status	Record Submitted
Requested On	23 Aug 2023 12:50
Scheduled On	26 Aug 2023

### New Survey Request

Accept

Reject

Cancel

Status	Rescheduled
Requested On	23 Aug 2023 10:07
Re-Scheduled On	6 Sep 2023
Reason For Rejection	Not satisfied

Land Name	Testing
Surveyor Name	JKC Surveyor



## Survey Request List

Land Name **Testing**  
Surveyor Name JKC Surveyor  
Status **Record Submitted**  
Requested On 23 Aug 2023 12:50

### New Survey Request

Mention Reason:

Cancel

Submit

Re-Scheduled On 6 Sep 2023  
Reason For Rejection **Not satisfied**

Land Name **Testing**  
Surveyor Name JKC Surveyor

## **Use Case 6: Submit Survey Record**

**Actor:** Surveyor

**Description:** The surveyor accesses the "Submit Survey Record" feature within the digital land data management system to submit a completed survey record of a requested land.

### **Preconditions:**

The surveyor is logged into the digital land data management system.

The surveyor has access to the survey records submission feature.

There is an assigned and pending survey request for a specific land record.

### **Flow:**

- The surveyor navigates to the section or menu of the system that provides access to the submission of survey records.
- Within the survey records submission section, the system presents a list of survey requests that are assigned to the surveyor and are in a pending status.
- The surveyor selects a specific survey request from the list to submit the survey record for that request.
- The system guides the surveyor through a submission form or interface, prompting them to input or upload the following information:
  - Date of the survey
  - Detailed survey report, including findings, measurements, and observations
  - Attachments, documents, or images related to the survey
  - Any additional notes or comments related to the survey
- After completing the submission form, the surveyor reviews the entered information to ensure its accuracy and completeness.
- The surveyor clicks the "Submit" or "Finish" button to submit the survey record.
- The system updates the status of the associated survey request to "completed."
- The submitted survey record is saved in the system's database, and the surveyor receives a confirmation message indicating that the survey record has been successfully submitted.

### **Alternate Flow:**

If the surveyor encounters any issues during the submission process or leaves mandatory fields empty, the system may display error messages and prompt the surveyor to correct the data.

### **Postconditions:**

The surveyor has successfully submitted the survey record of the requested land, marking the survey request as completed and providing valuable survey data for further analysis and decision-making.

This use case outlines the process by which a surveyor interacts with the "Submit Survey Record" feature in the digital land data management system, enabling them to submit completed survey records for assigned survey requests.



### New Survey Record

Survey Information



Survey Documents



Survey Images



Nearest Location From Land



 Back

Save



## New Survey Record

### Survey Information ^

Remarks

Add Concern

Survey Documents ∨

Survey Images ∨

Nearest Location From Land ∨



## Survey Record

Survey Documents ^

[+ Add New Document](#)

### Record 1

Document Number \*

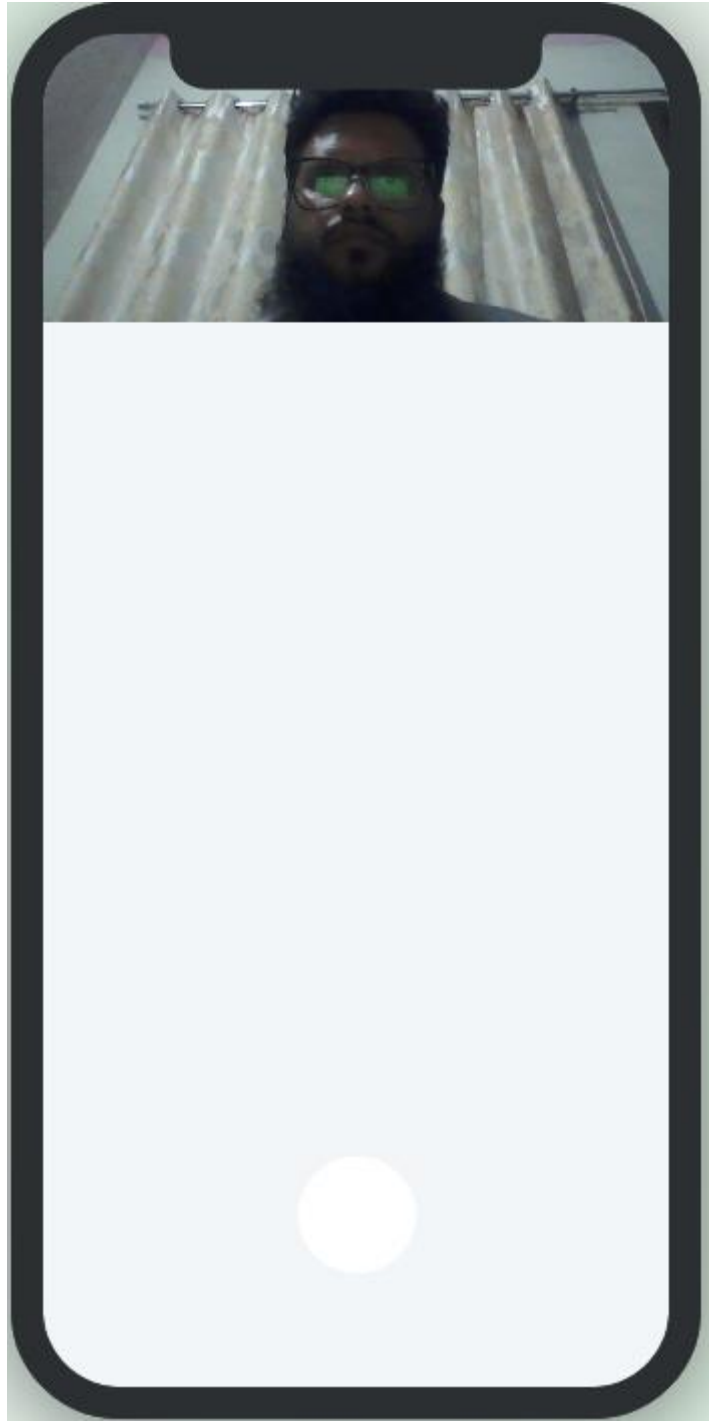
Document Name \*

Upload Document File

Remarks

[Remove](#)







## Survey Record

### Nearest Location From Land ^

Railway Station Name \*

Railway Station Distance \*

Bus Stop Name \*

Bus Stop Distance \*

Airport Name \*

Airport Distance \*

## **Benefits:**

### **Cost Savings and Resource Efficiency:**

By digitizing land records, the company can significantly reduce costs associated with maintaining physical paper records. This includes expenses related to paper, storage, printing, and manual recordkeeping.

Digital records are easier to update and manage, reducing the need for manual data entry and record maintenance. This results in cost savings associated with labor and administrative tasks.

### **Enhanced Accessibility and Productivity:**

Digital records can be accessed from anywhere with an internet connection, providing convenience and flexibility to authorized personnel. This accessibility can improve the productivity of staff involved in land record management.

Searching for specific records, retrieving information, and sharing data become faster and more efficient in a digital environment, leading to time savings and improved work efficiency.

### **Data Accuracy and Integrity:**

Digital records are less prone to human error compared to manual recordkeeping. Data accuracy can be enhanced through validation rules and automated data entry, reducing the risk of errors in land records.

Version control and audit trails can be implemented to track changes and updates to the records, ensuring data integrity and providing a clear history of modifications.

### **Transparency and Accountability:**

Digital records promote transparency within the organization. Authorized users can access records based on their roles, and all interactions with the data are logged and traceable.

This transparency enhances accountability as it becomes easier to monitor who accessed the records and what changes were made, improving compliance and reducing the potential for unauthorized or fraudulent activities.

### **Data Analysis and Reporting:**

Digital data provides the opportunity for in-depth analysis and reporting. JK Cement Limited can use the data to gain insights into their land assets, monitor trends, and make informed decisions regarding land management and investment.

Data analytics can help optimize land use, identify underutilized assets, and support strategic planning.

### **Security and Disaster Recovery:**

Implementing a secure access-controlled system for digital records enhances data security and privacy. This is especially critical for sensitive land information.

Backups and disaster recovery plans can be put in place to ensure the safety of digital records in the event of data loss due to hardware failure, accidents, or disasters.

**Environmental Responsibility:**

Going paperless and reducing the reliance on physical records aligns with environmentally responsible practices. This approach minimizes the environmental impact of paper production and the carbon footprint associated with physical record management.

In summary, transitioning to digital land data management not only offers immediate cost savings but also delivers long-term benefits in terms of efficiency, data accuracy, transparency, security, and strategic decision-making. It positions JK Cement Limited to adapt to the demands of Industry 4.0 and enhances their overall operational excellence.