

Technical Documentation

Project Title: NIA Document Tracking and Management System

Institution: Laguna State Polytechnic University

Date: May 29, 2025

Developers: Almario, Bayani, Adelan, Delos Santos, Javier and Redera

Version: 1.0

1. System Overview and Architecture

The DTMS is a web-based application designed to manage the flow of internal documents within the National Irrigation Administration (NIA). It provides role-based access, document lifecycle tracking, routing, search functionalities, and audit logging.

Tier	Component	Description
Client	Web Browser	Interface for users (Admin, Guest, Handler, Records) to access the system via HTTP(S).
Server	Application Server	Processes request, applies business logic, and handles API routing.
Frontend	HTML, CSS (Tailwind), Javascript	Provides a clean and responsive interface that allows users to navigate and interact with the system efficiently across all roles.
Backend	PHP	Hosts logic for document tracking, user authentication, and workflows.
Database	MySQL	Stores user data, document metadata, audit logs, and system configurations.
Hosting	XAMPP (PHPMyAdmin, Apache)	Runs the system locally, handling web requests and database management for easy development and testing.

2. Summary of Enhancements and Rationale

This system was developed to address the following limitations in the current manual or legacy system:

- Lack of centralized tracking

- Missing audit trails
- Delays in document approval and distribution

Enhancements:

- Web-based access
- Role-based permissions
- Auto-routing and notification system
- Document status tracking

3. Updated UI/UX Screenshots

Admin Account

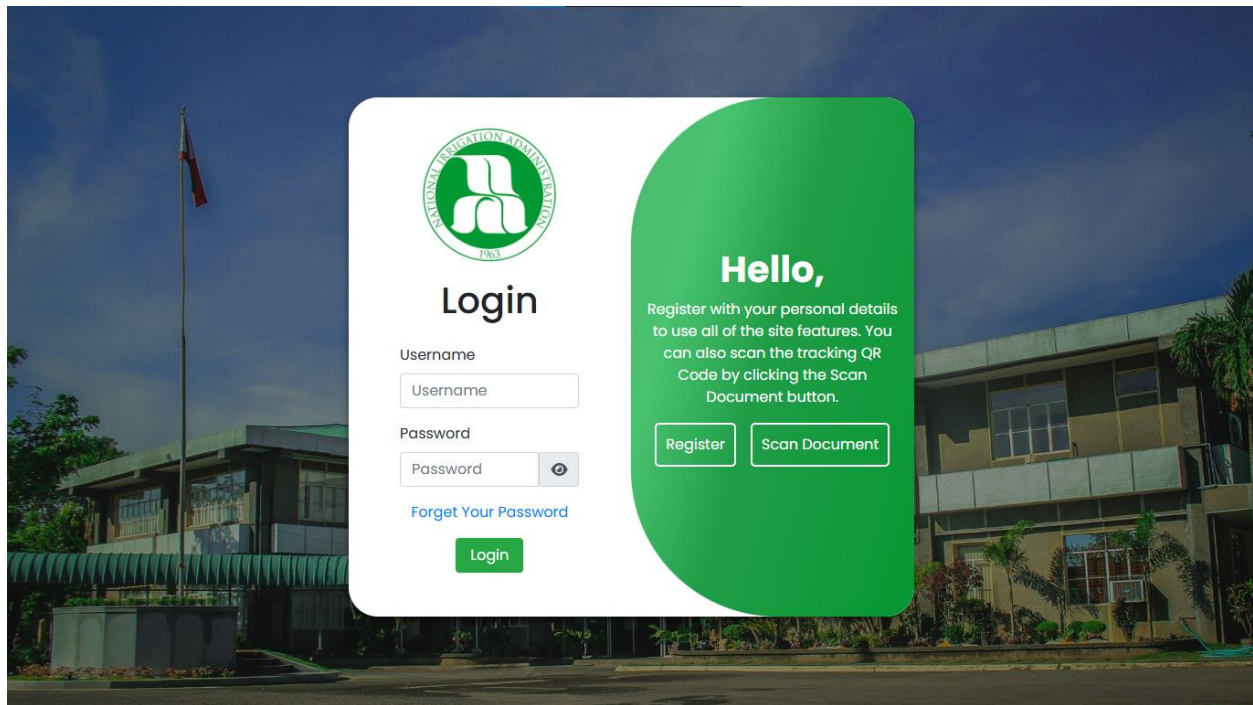


Figure 1. Log In

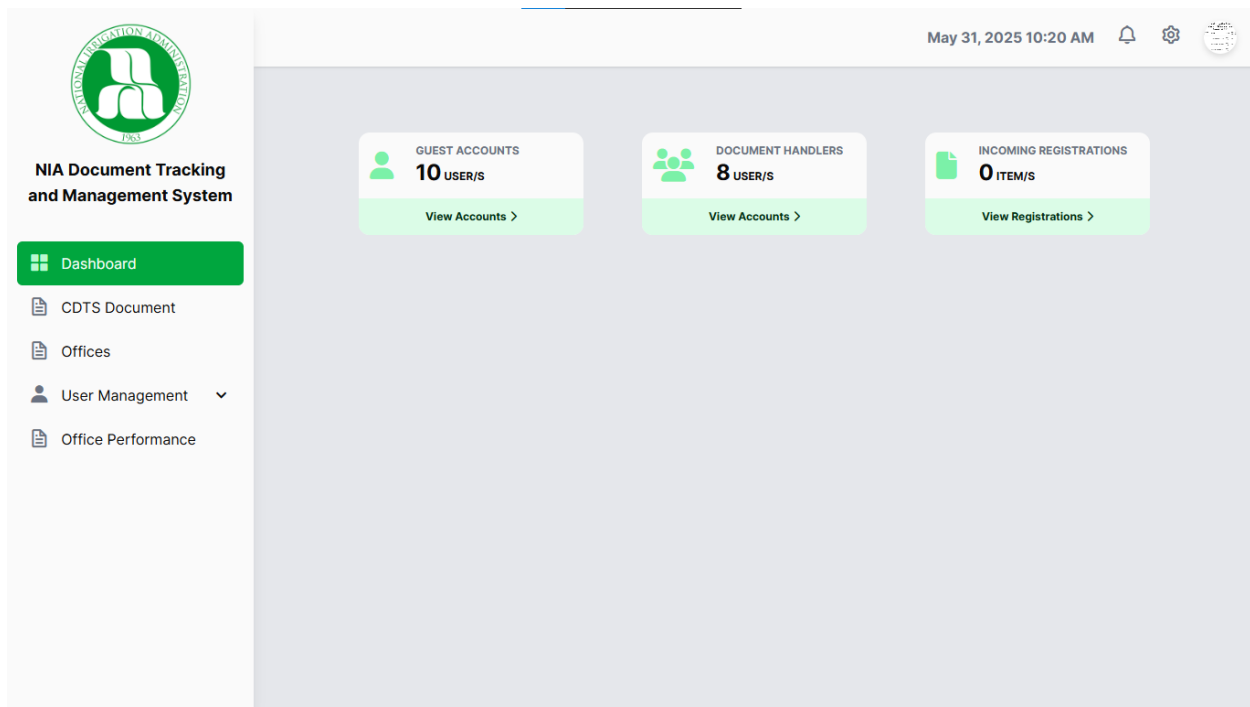


Figure 2. Dashboard

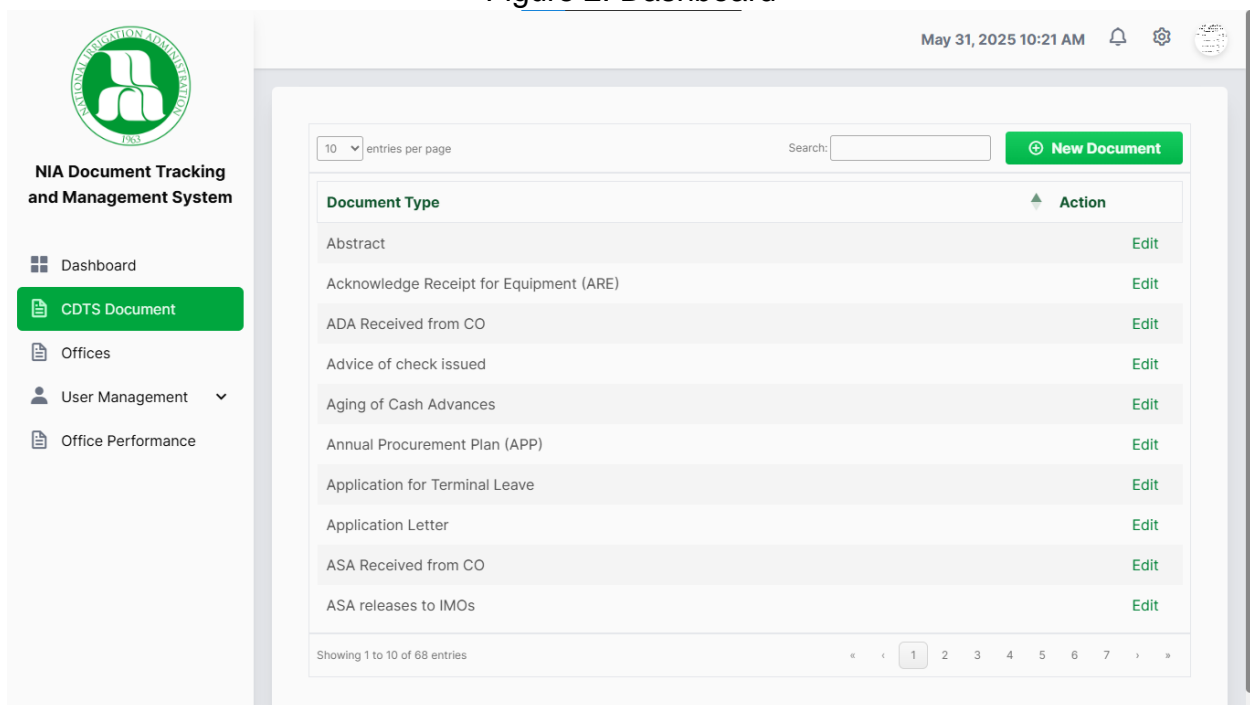



Figure 3. CDTS Document



NIA Document Tracking and Management System

- Dashboard
- CDTS Document
- Offices**
- User Management
- Office Performance

May 31, 2025 10:21 AM

10 entries per page


Search:

[New Office](#)

Office Name	Office Code	Action
Administrative and Finance Division	AFD	Edit
Administrative Section Records	ASR	Edit
Engineering and Operations Division	EOD	Edit
Engineering Section	EOD-OS	Edit
Equipment Section	ES	Edit
Finance Section	FS	Edit
Office of The Regional Irrigation Manager	RIM	Edit
Office of the Regional Manager - Health Services	ORM-HS	Edit
Office of the Regional Manager - IT	ORM-IT	Edit
Operation Section	OPS	Edit

Showing 1 to 10 of 11 entries

Figure 4. Offices



NIA Document Tracking and Management System

- Dashboard
- CDTS Document
- Offices
- User Management**
- Office Performance

May 31, 2025 10:21 AM

10 entries per page


Search:

[Archived Accounts](#)

Username	Role	Full Name	Contact number	Email	Action
No data available in table					

Showing 0 to 0 of 0 entries

Figure 5. User Management 1.0



NIA Document Tracking and Management System

- Dashboard
- CDTS Document
- Offices
- User Management
- Office Performance

May 31, 2025 10:22 AM


10 entries per page

Search:

[New User](#)

Username	Role	Full Name	Contact number	Position	Office	Action
newhandler	handler	New Document12 Handler	9123123123	ASDWQEQWQEQWE	Office of The Regional Irrigation Manager	...
newhandler1	handler	Added by Admin	9123123123	ASDWQEQWQEQWE	Office of The Regional Irrigation Manager	...
qwe	handler	qwe qwe	9123123123	123123123	Office of the Regional Manager - Health Services	...
qwe1	handler	qw qwe	9123123123	qweqweqwe	Office of the Regional Manager - IT	...
record	handler	record record	9123123123	qweqweqwe	Administrative Section	...

Figure 6. User Management 1.1



NIA Document Tracking and Management System

- Dashboard
- CDTS Document
- Offices
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- Office Performance

May 31, 2025 10:22 AM

10 entries per page

Search:

[New User](#)

Username	Role	Full Name	Contact number	Email	Action
0123123	guest	qweqweqwe qweqweqwe	09123123123	micopar463@bizatop.com	...
asdasd123	guest	Testing LNagsasd	9123123123	kixiji8671@tospage.com	...
asdqweqwe	guest	qweqwe qweqwe	9123123123	yagib59657@bizatop.com	...
guestaccount	guest	Guest Guest	9123123123	fonej95623@arensus.com	...
guestaccount1	guest	asdasd asdasdasd	9123123123	fejokal467@huizk.com	...
newguest	guest	Newasd Guest	9123123123	boyav37316@pursip.com	...
newguest1	guest	Added by admin guest	9123123123	dihaboc490@regapts.com	...
newguest123	guest	newguest newguest	9123123123	wanadet919@artgulin.com	...
testinquest	quest	asdasdasd	9123123123	metaq70052@vasteron.com	...

Figure 7. User Management 1.2



Figure 8. Office Performance

Guest Account

The screenshot shows a 'Guest Account' login page overlaid on a background image of a building. The page features the NIA logo, a 'Login' heading, and input fields for 'Username' and 'Password'. A 'Login' button is at the bottom. To the right, a green box contains a 'Hello,' greeting, a registration prompt, and 'Register' and 'Scan Document' buttons. A 'Forgot Your Password' link is also present.

Login

Username

Password

[Forgot Your Password](#)

Hello,

Register with your personal details to use all of the site features. You can also scan the tracking QR Code by clicking the Scan Document button.

Figure 9. Log In

The screenshot shows the 'Submit Document' form in the NIA Document Tracking and Management System. The left sidebar contains the system logo and navigation links: 'Submit Document' (highlighted), 'Pending Document', 'Document Tracking', and 'Communication'. The main form area includes the following fields: 'Subject' (text input with placeholder 'e.g., Request for Transcript of Records'), 'Document Type' (dropdown menu with 'Letter' selected), 'Description' (text area with placeholder 'Brief summary of the document'), 'Document Date' (text input with placeholder 'mm/dd/yyyy'), 'Action Required' (text input with placeholder 'e.g., For approval, For review, For signature'), and 'Send Attachments' (a 'Choose File' button and the text 'No file chosen'). At the bottom right of the form are 'Clear' and 'Submit' buttons. The top right of the page shows the date and time 'May 29, 2025 2:15 PM' along with notification and user profile icons.

Figure 10. Submit Document 1.0

This screenshot is identical to Figure 10, showing the 'Submit Document' form. However, a 'Notifications' overlay is visible on the right side of the screen. The overlay contains two messages: 'New Message' with the text 'Transaction completed. Mark this by: simon javier' and another 'New Message' with the text 'Your document has been decline.' Below these messages is a link that says 'See all notifications'. The rest of the form and the sidebar remain the same as in Figure 10.

Figure 11. Submit Document 1.1

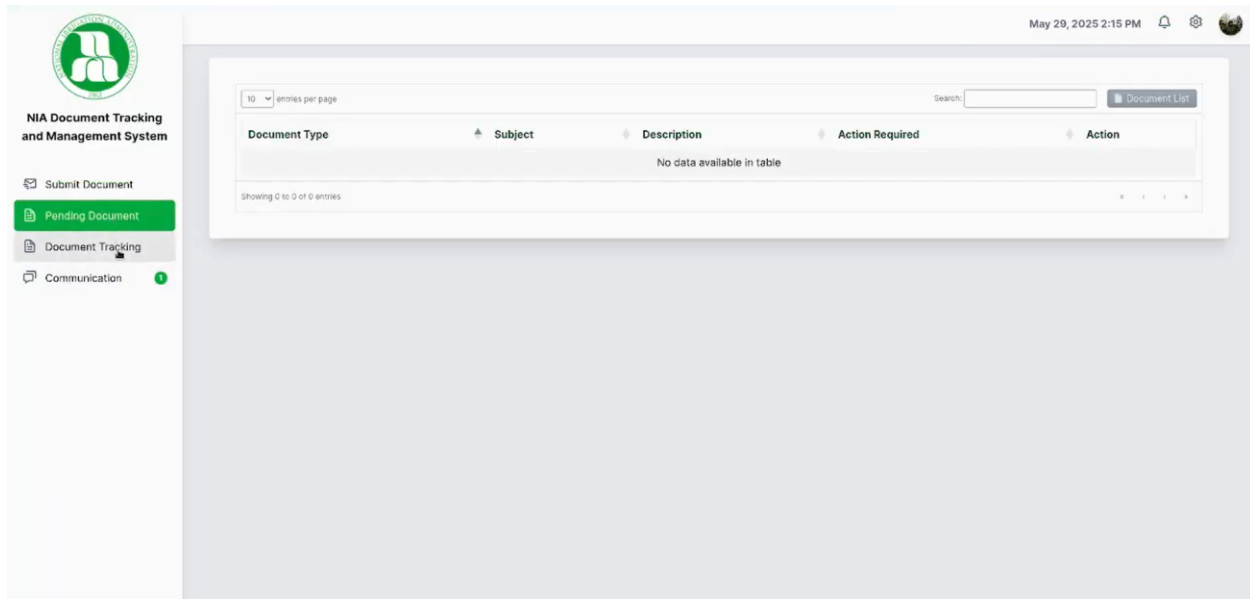


Figure 12. Pending Document

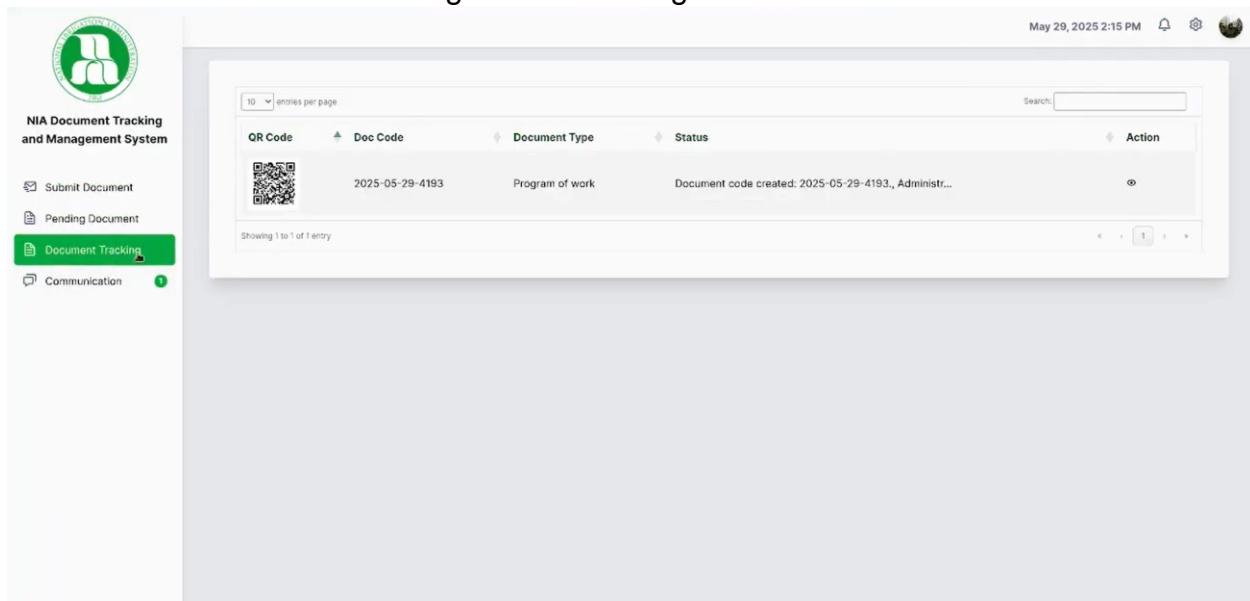


Figure 13. Document Tracking

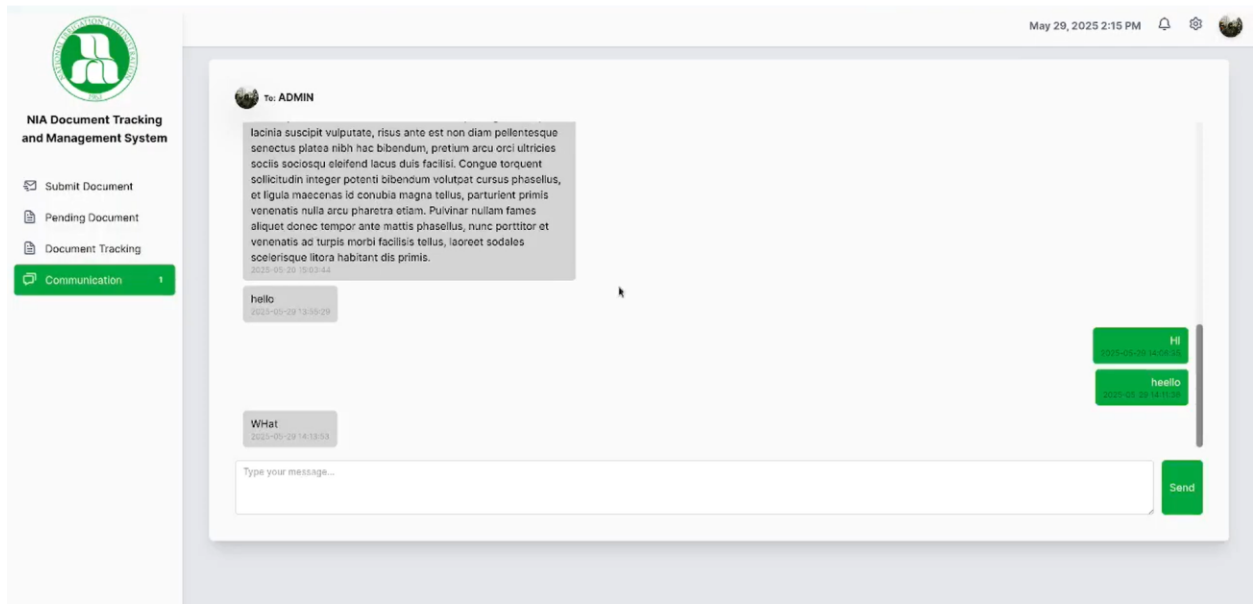


Figure 14. Communication

Handler Account

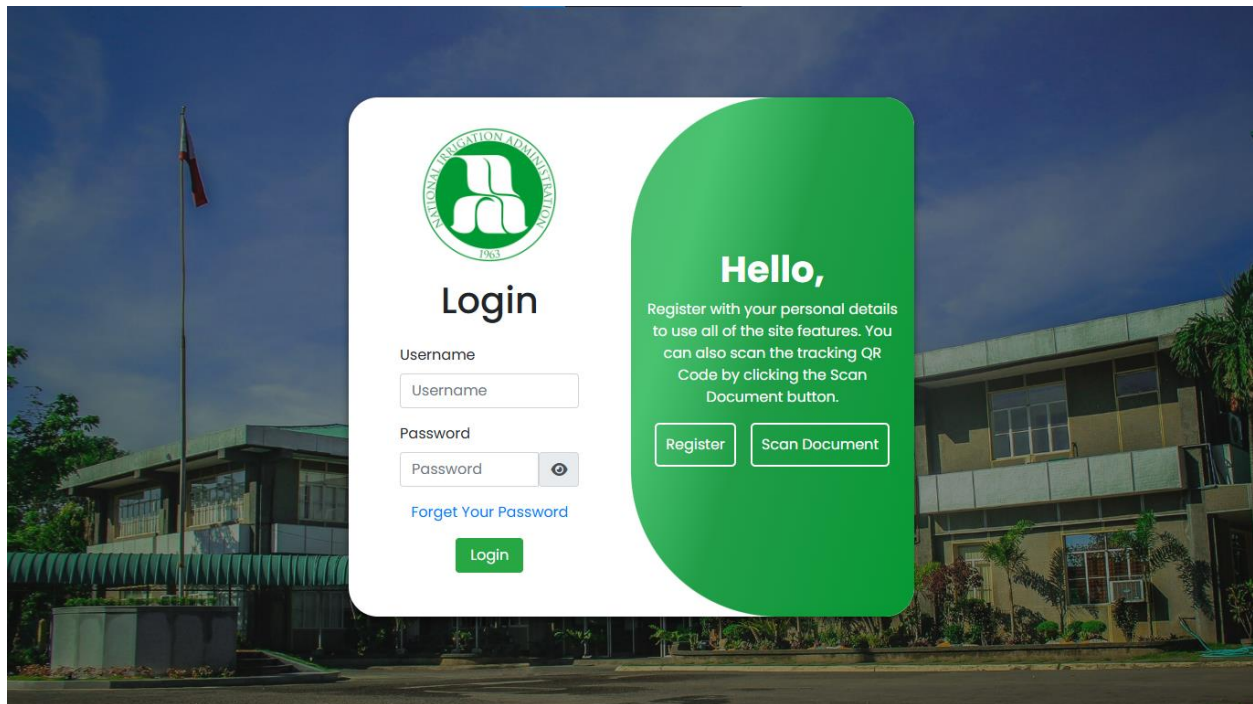


Figure 15. Log In

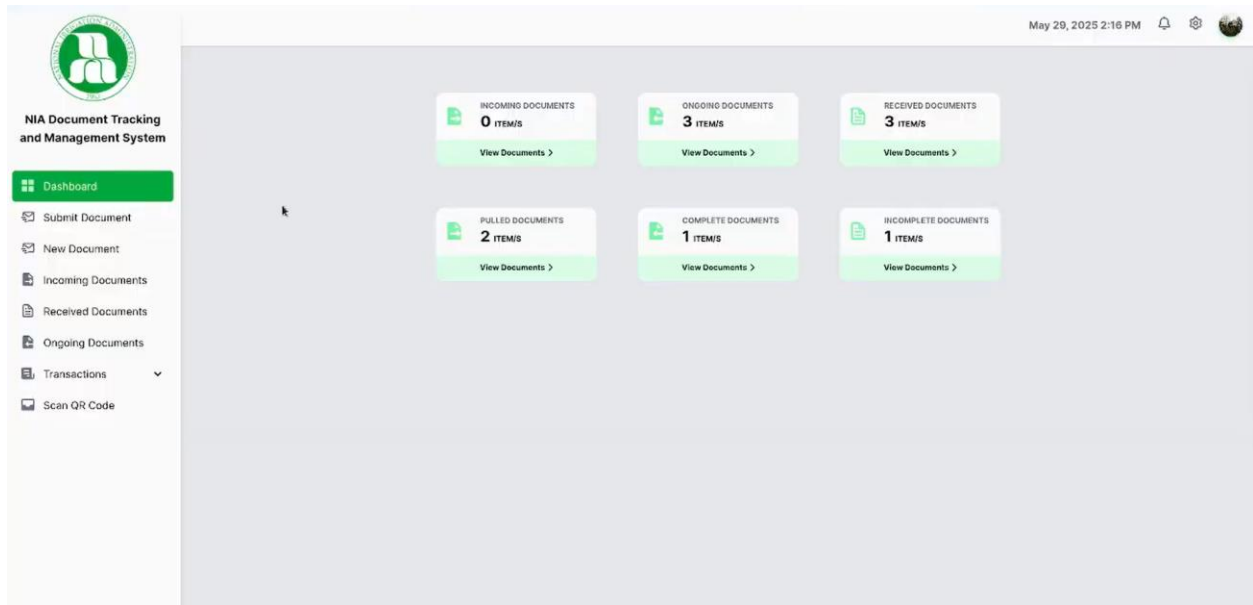


Figure 16. Dashboard

The form contains the following fields:

- Subject:** Text input with placeholder "e.g., Request for Transcript of Records".
- Document Type:** Dropdown menu with "Letter" selected.
- Description:** Text area with placeholder "Brief summary of the document".
- Document Date:** Text input with placeholder "mm/dd/yyyy".
- Action Required:** Text input with placeholder "e.g., For approval, For review, For signature".
- Send To:** Dropdown menu with "Select: Office" selected.
- Send Attachments:** Label for the attachment section.

Figure 17. Submit Document 1.0

and Management System

Dashboard

Submit Document

New Document

Incoming Documents

Received Documents

Ongoing Documents

Transactions

Scan QR Code

Subject

e.g., Request for Transcript of Records

Document Type

Letter

Description

Brief summary of the document

Document Date

mm/dd/yyyy

Action Required

e.g., For approval, For review, For signature

Send To:

Select Office

Send Attachments


Choose File

No file chosen

Clear

Submit

Figure 18. Submit Document 1.1



NIA Document Tracking and Management System

Dashboard

Submit Document

New Document

Incoming Documents




Received Documents

Ongoing Documents

Transactions

Scan QR Code

May 29, 2025 2:16 PM

Filter by date

Start date

End date

10 entries per page

Search

Smart

Date	Document Type	Subject	Description	Action Required	Action
No data available in table					

Showing 0 to 0 of 0 entries

Figure 19. New Document

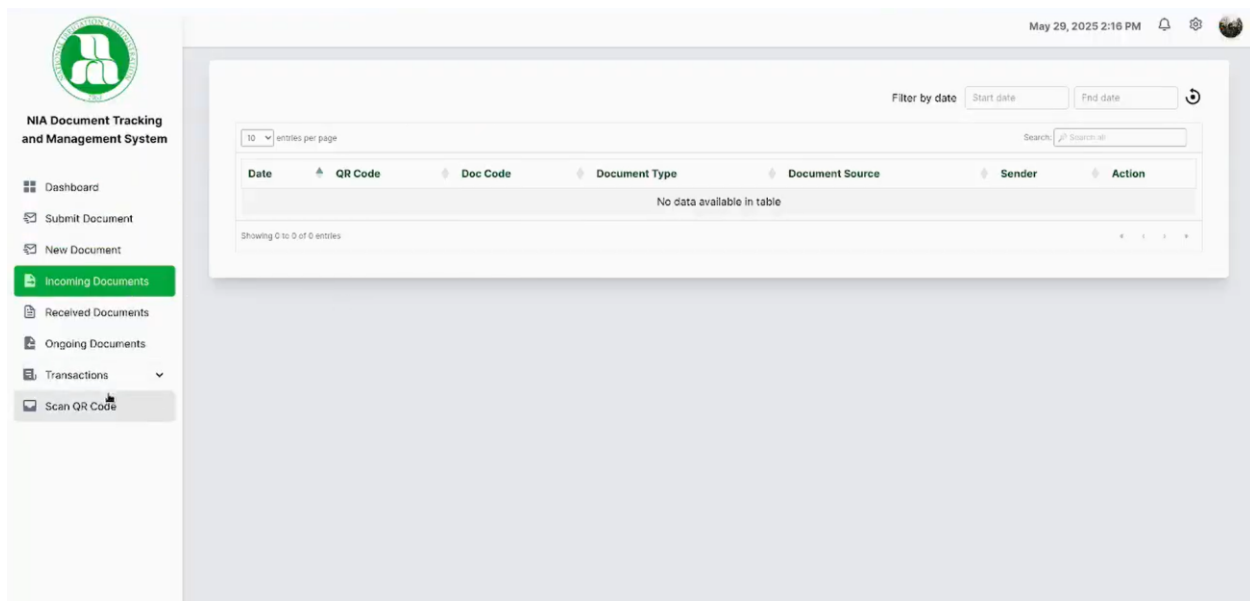


Figure 20. Incoming Document

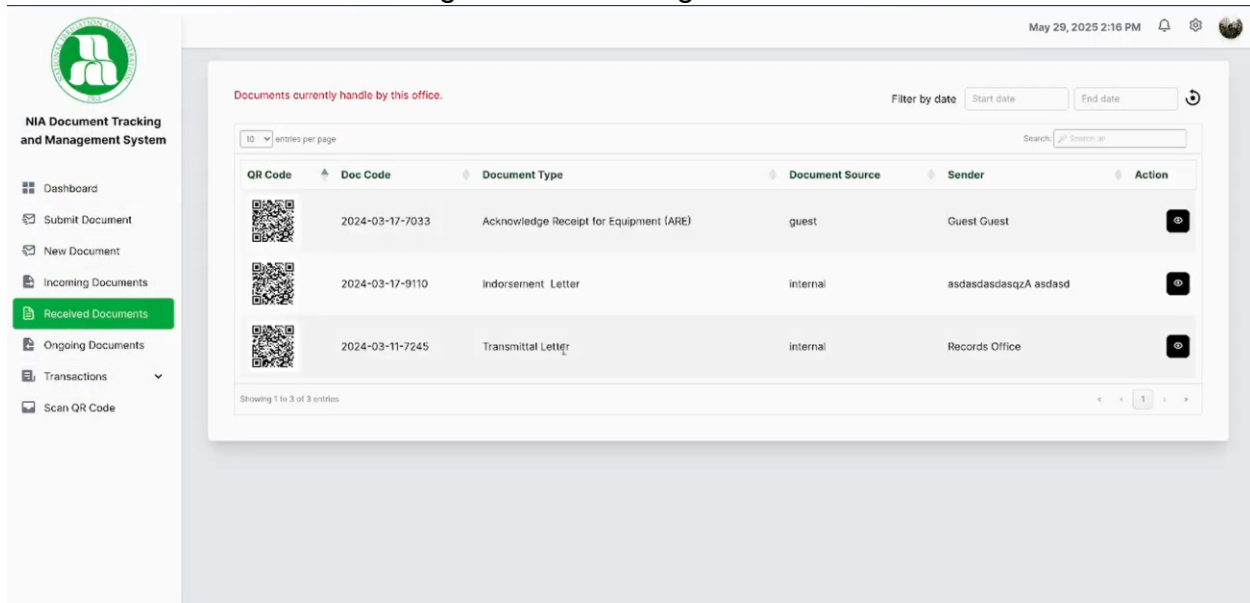


Figure 21. Received Document 1.0

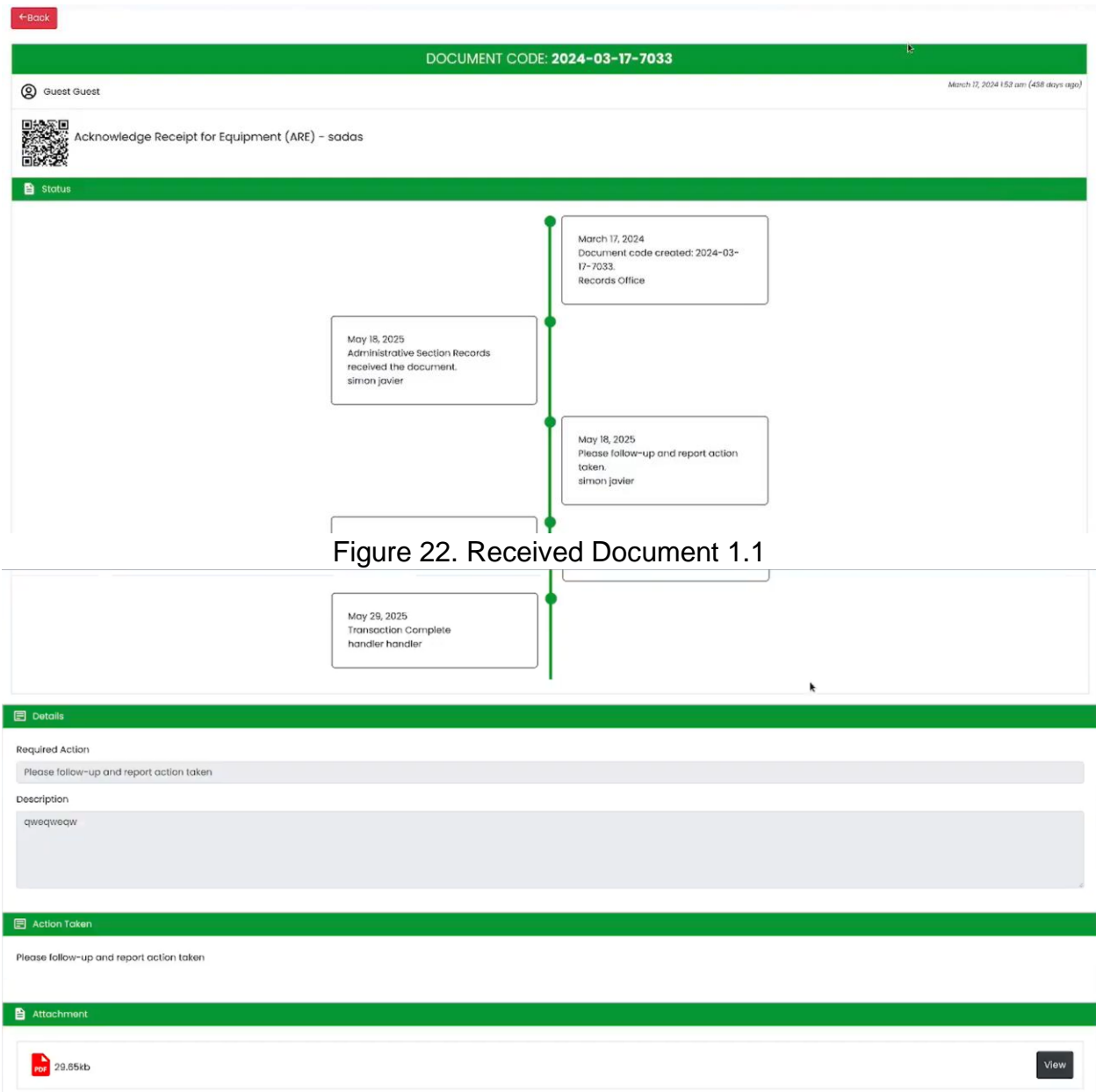


Figure 23. Received Document 1.1

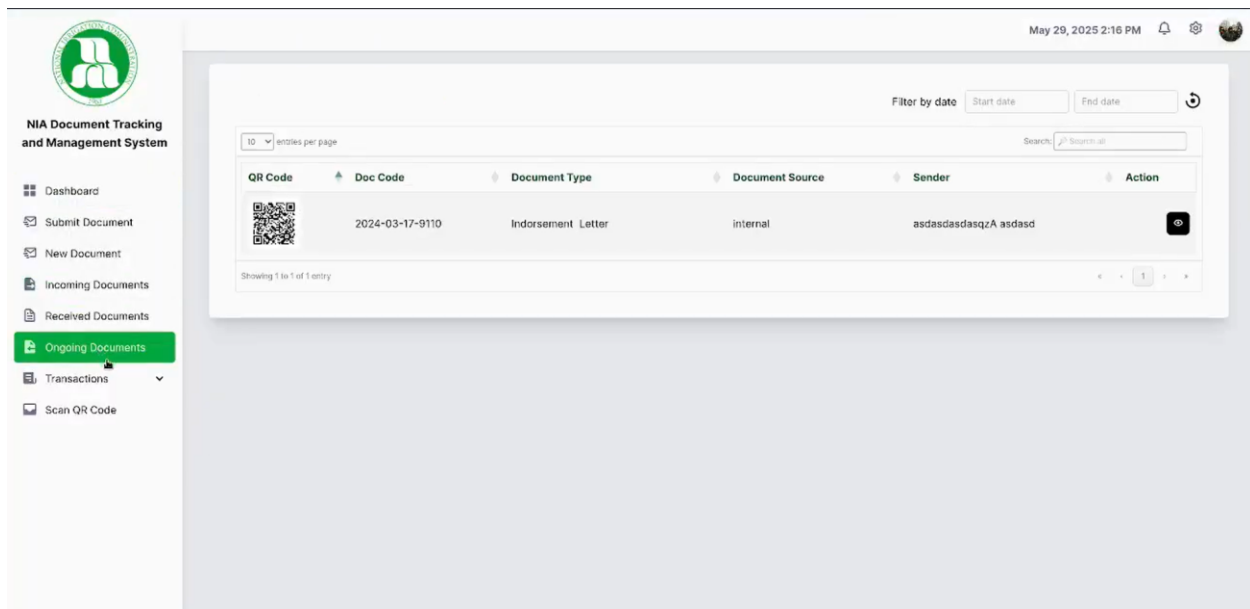


Figure 24. Ongoing Document

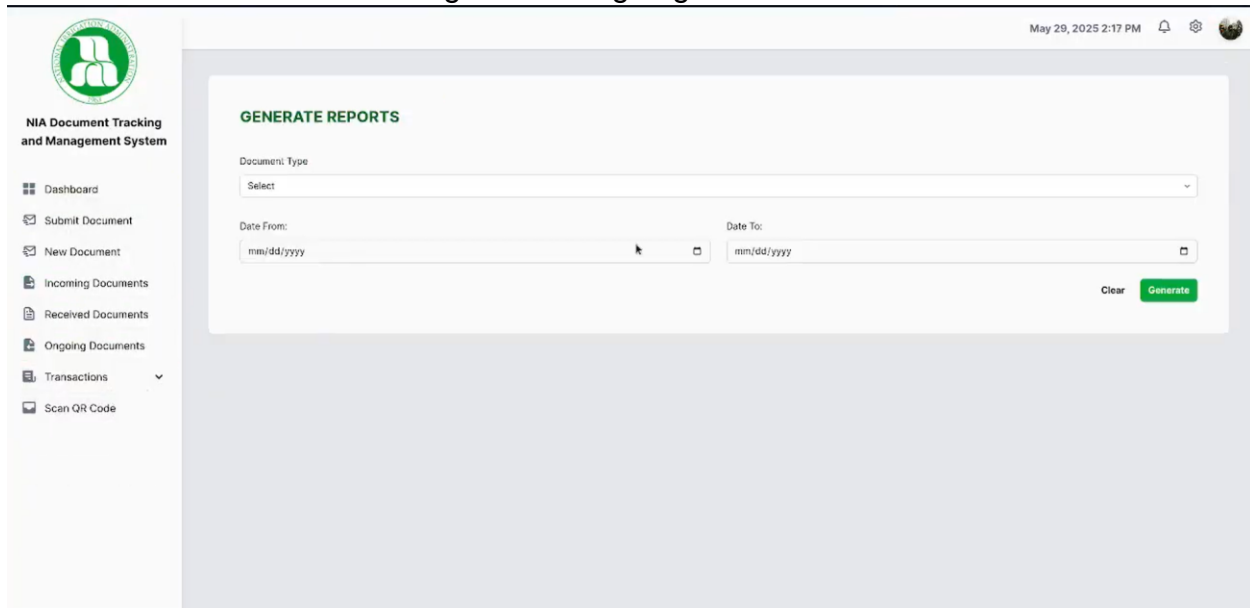



Figure 25. Transaction (Generate Report)



NIA Document Tracking and Management System

- Dashboard
- Submit Document
- New Document
- Incoming Documents
- Received Documents
- Ongoing Documents
- Transactions
- Scan QR Code

May 29, 2025 2:17 PM


Filter by date Start date End date

10 entries per page

Pulled Date	Sender	Document Type	Subject	Description	Action Required
2024-03-16 22:39:07	asdasdasdasqzA asdasd	Travel Order	testing	123123	For appropriate action
2024-03-16 23:09:05	asdasdasdasqzA asdasd	Acknowledge Receipt for Equipment (ARE)	qweqe2	wqewqeqwe	For appropriate action

Showing 1 to 2 of 2 entries

Figure 26. Transaction (Pulled Documents)



NIA Document Tracking and Management System

- Dashboard
- Submit Document
- New Document
- Incoming Documents
- Received Documents
- Ongoing Documents
- Transactions
- Scan QR Code

May 29, 2025 2:17 PM

Filter by date Start date End date

10 entries per page

QR Code	Doc Code	Document Type	Document Source	Receiving Unit	Status	Action
No data available in table						

Showing 0 to 0 of 0 entries

Figure 27. Transaction (Complete Documents)

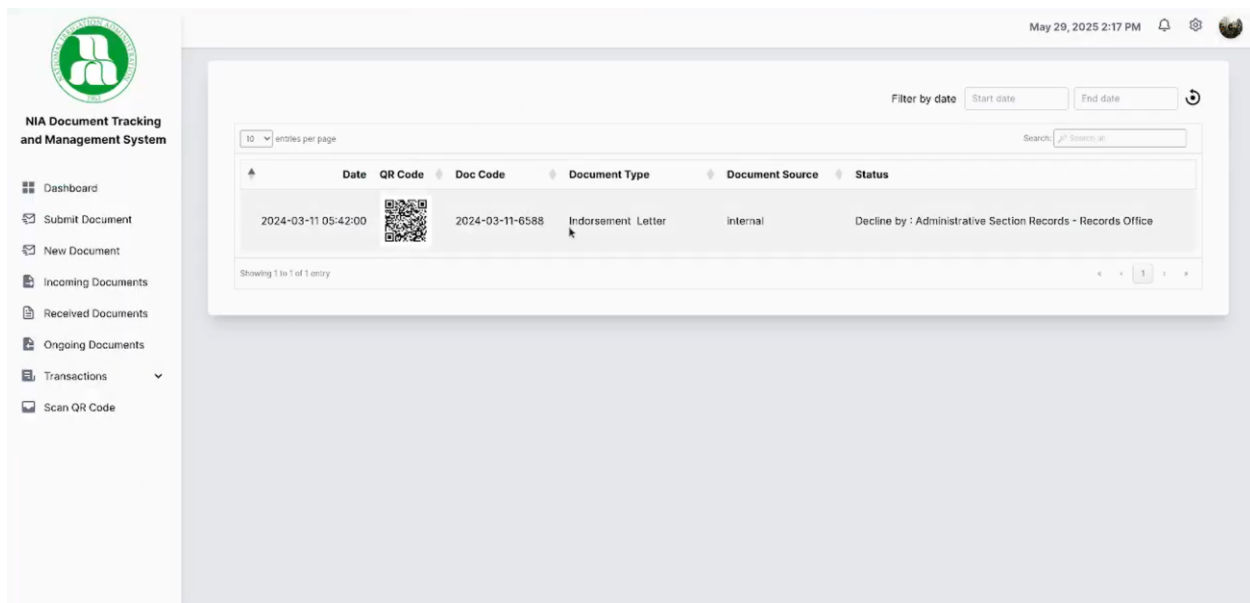


Figure 28. Transaction (Incomplete Documents)

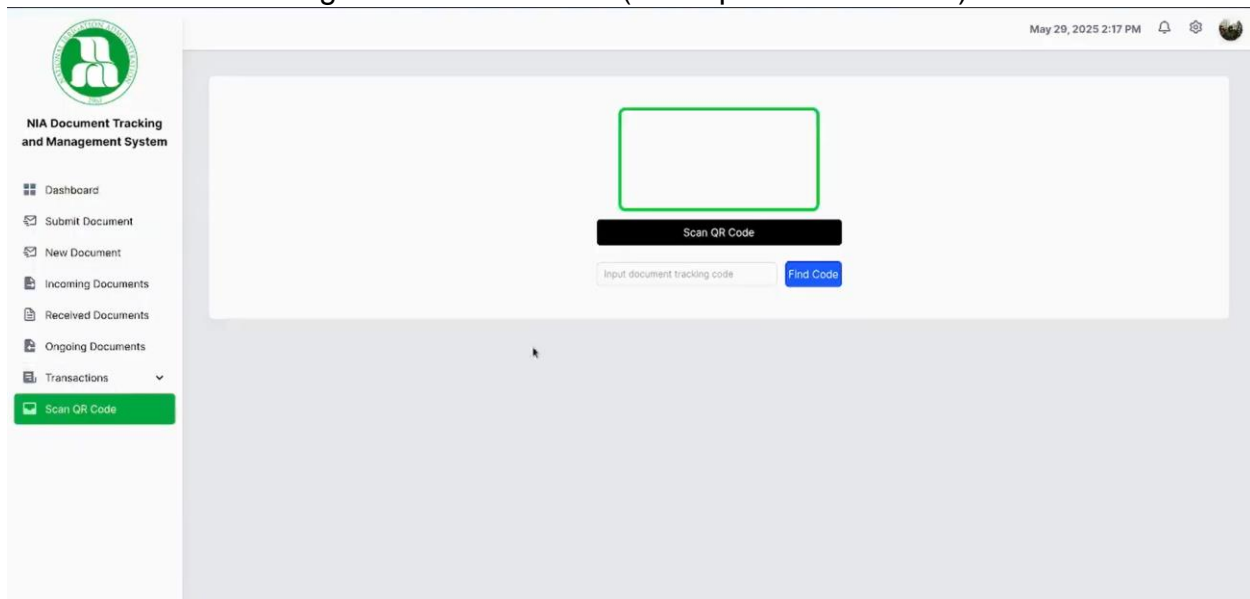


Figure 29. Scan QR Code

Record Account

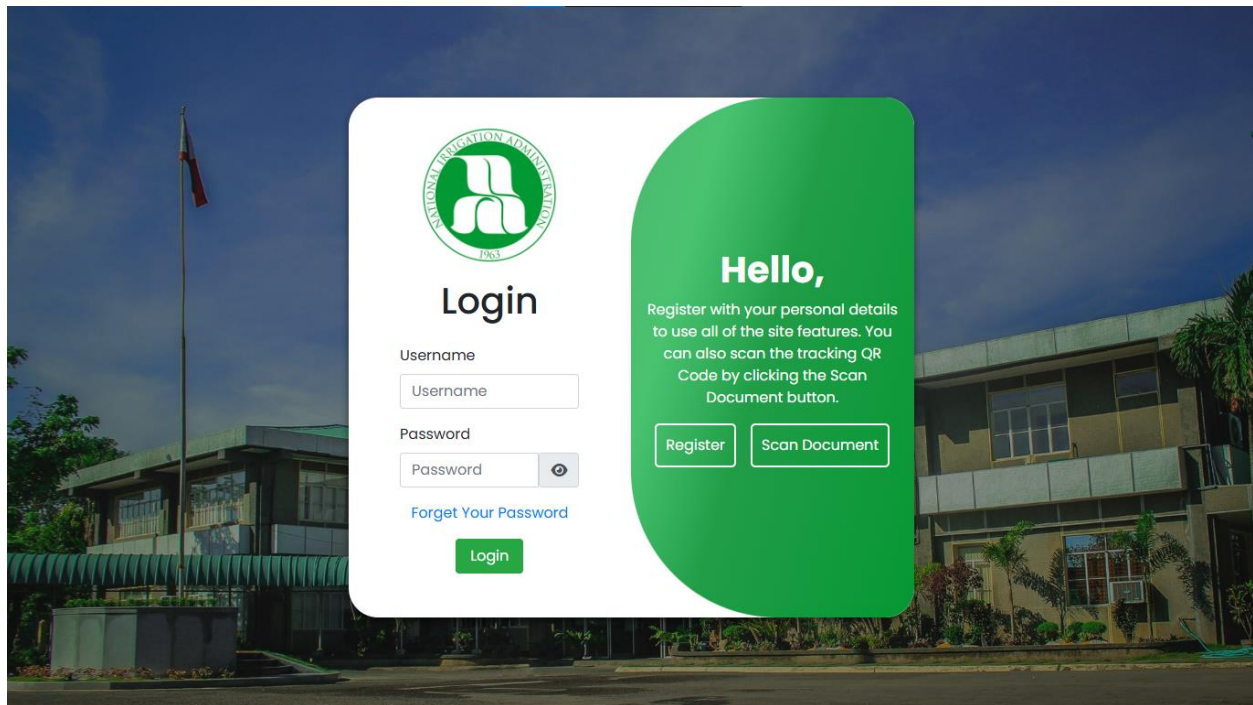


Figure 30. Log In

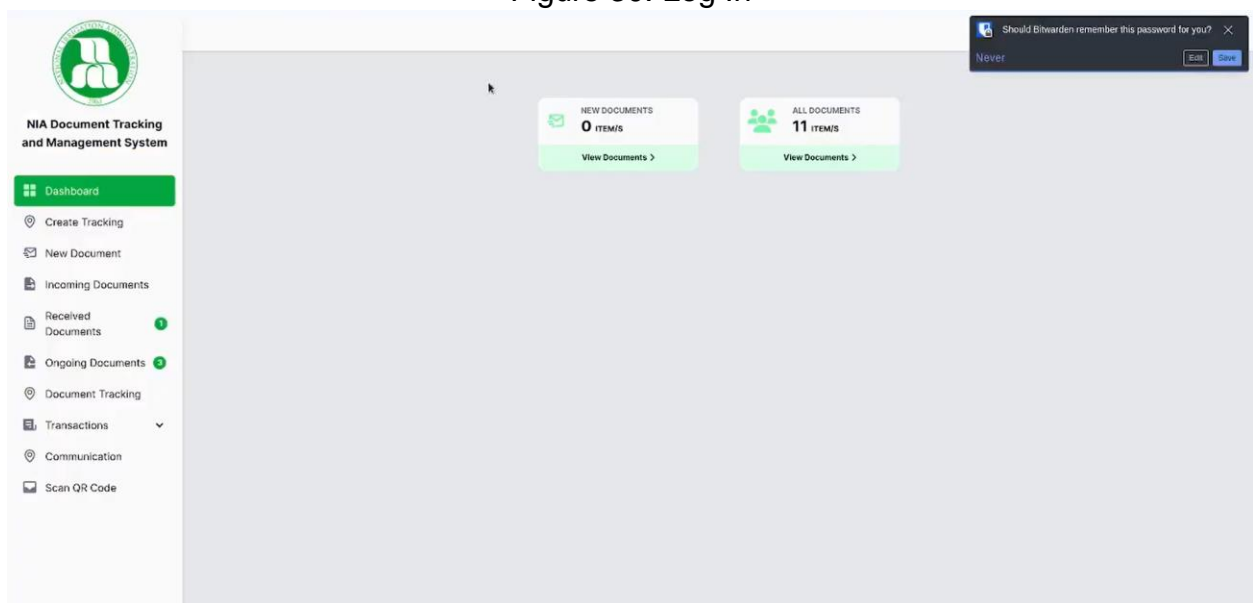



Figure 31. Dashboard



NIA Document Tracking and Management System

- Dashboard
- Create Tracking**
- New Document
- Incoming Documents
- Received Documents 1
- Ongoing Documents 2
- Document Tracking
- Transactions
- Communication
- Scan QR Code

Should Bitwarden remember this password for you? ✕

Never Edit Save

Subject
e.g., Request for Transcript of Records

Document Type
Letter

Description
Brief summary of the document


Document Date
mm/dd/yyyy

Action Required
e.g., For approval, For review, For signature

From
e.g., Simon Javier ☐ Is external?

Send To:
Select Office

Figure 32. Create Tracking



NIA Document Tracking and Management System

- Dashboard
- Create Tracking
- New Document**
- Incoming Documents
- Received Documents 1
- Ongoing Documents 2
- Document Tracking
- Transactions
- Communication
- Scan QR Code

Should Bitwarden remember this password for you? ✕

Never Edit Save

Filter by date Start date End date ↺

10 entries per page Search 2/2 Search all

Date	Document Type	Subject	Description	Action Required	Action
No data available in table					

Showing 0 to 0 of 0 entries

Figure 33. New Document

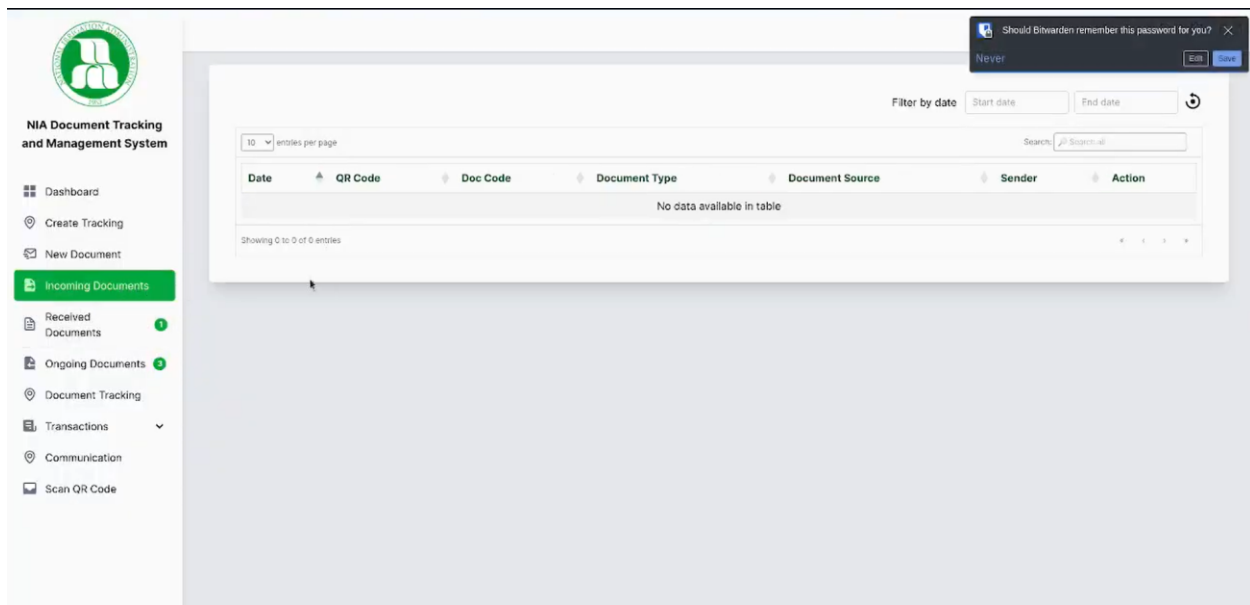


Figure 34. Incoming Documents

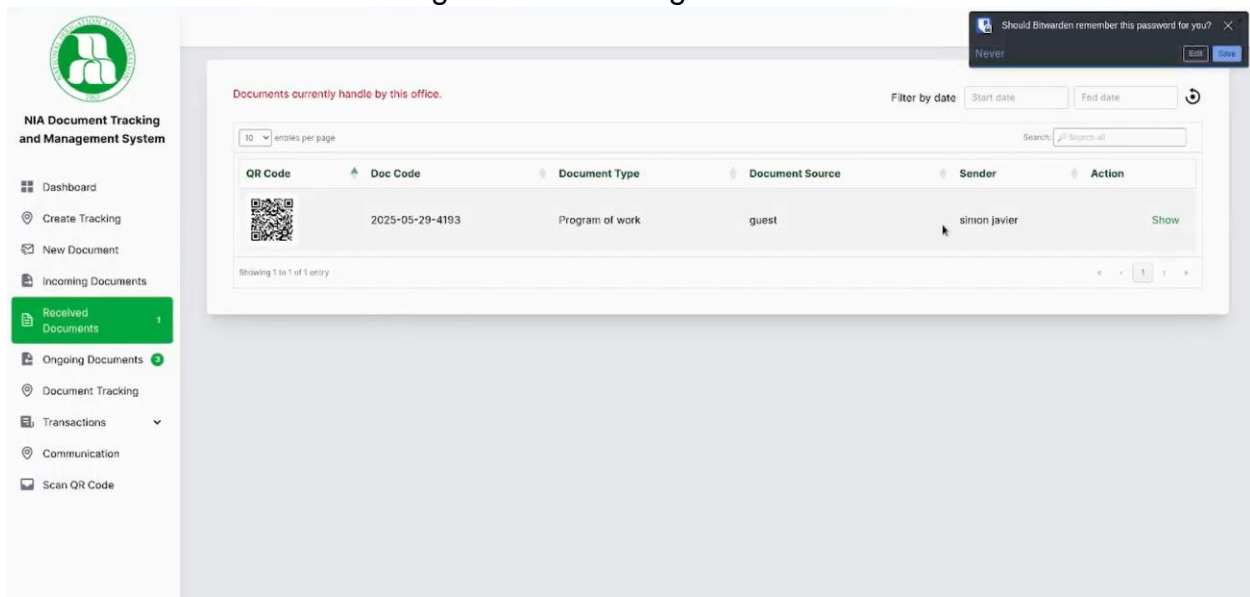


Figure 35. Received Documents 1.0

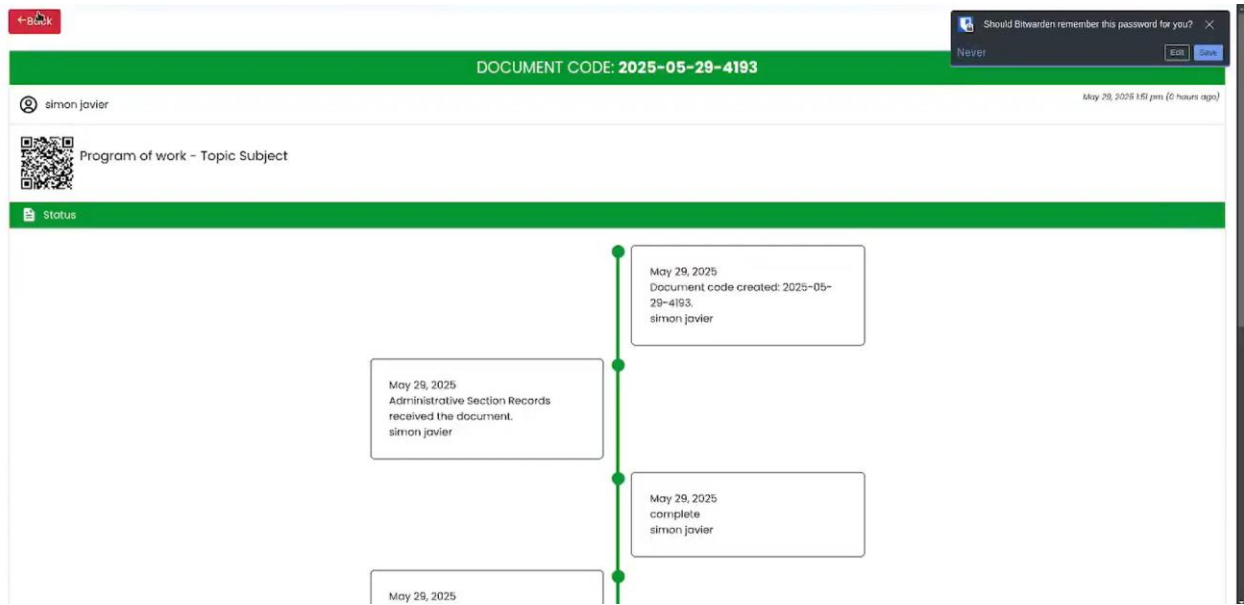


Figure 36. Received Documents 1.1

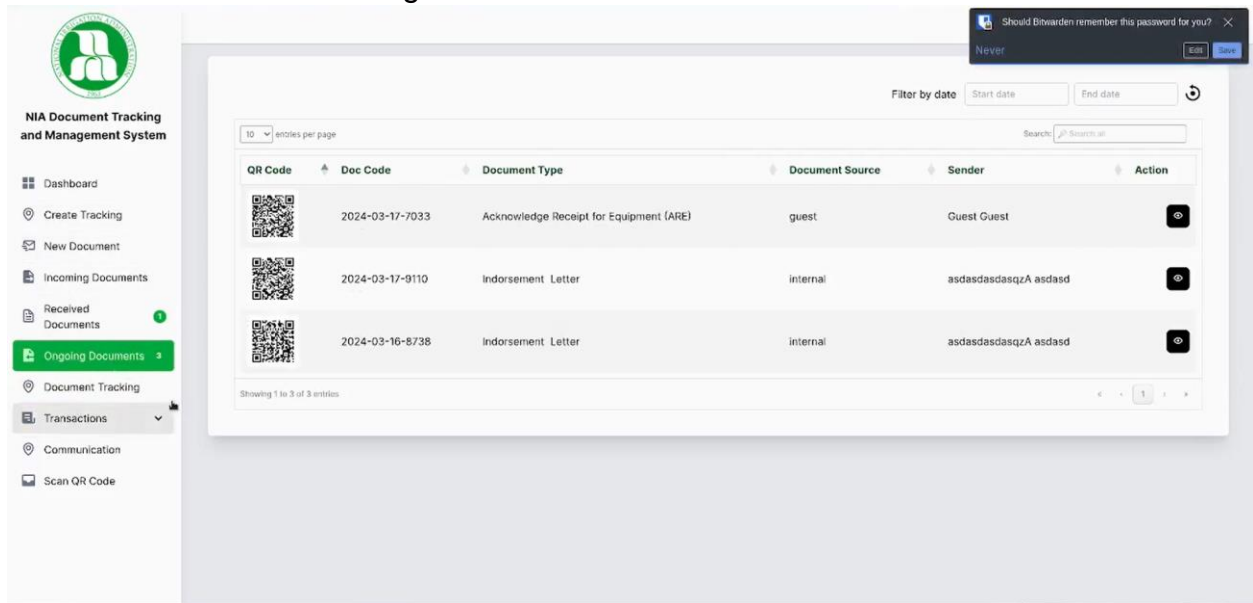



Figure 37. Ongoing Documents



NIA Document Tracking and Management System

- Dashboard
- Create Tracking
- New Document
- Incoming Documents
- Received Documents 1
- Ongoing Documents 2
- Document Tracking**
- Transactions
- Communication
- Scan QR Code

Should Bitwarden remember this password for you? Never Edit Save

Filter by date: Start date End date ↺

10 entries per page Search:
















Date	QR Code	Doc Code	Document Type	Document Source	Sender	Current Office	Action
2024-03-11		2024-03-11-7245	Transmittal Letter	Internal	Records Office	Office of The Regional Irrigation Manager	
2024-03-16		2024-03-16-8738	Indorsement Letter	Internal	asdasdasdasqzA asdard	No current office.	
2025-05-16		2025-05-16-6721	Letter	guest	simonn	No current office.	
2025-05-22		2025-05-22-0628	Letter			No current office.	
2025-05-29		2025-05-29-4193	Program of work	guest	simon javier	Administrative Section Records	
2025-05-29		2024-03-17-7033	Acknowledge Receipt for Equipment (ARE)	guest	Guest Guest	Office of The Regional Irrigation Manager	
2025-05-		2024-03-17-			asdasdasdasqzA	Office of The Regional Irrigation	

Figure 38. Documents Tracking



NIA Document Tracking and Management System

- Dashboard
- Create Tracking
- New Document
- Incoming Documents
- Received Documents 1
- Ongoing Documents** 2
- Document Tracking
- Transactions
- Communication
- Scan QR Code

Should Bitwarden remember this password for you? Never Edit Save

GENERATE REPORTS

Document Type:

Date From:

Clear Generate

Figure 39. Transactions

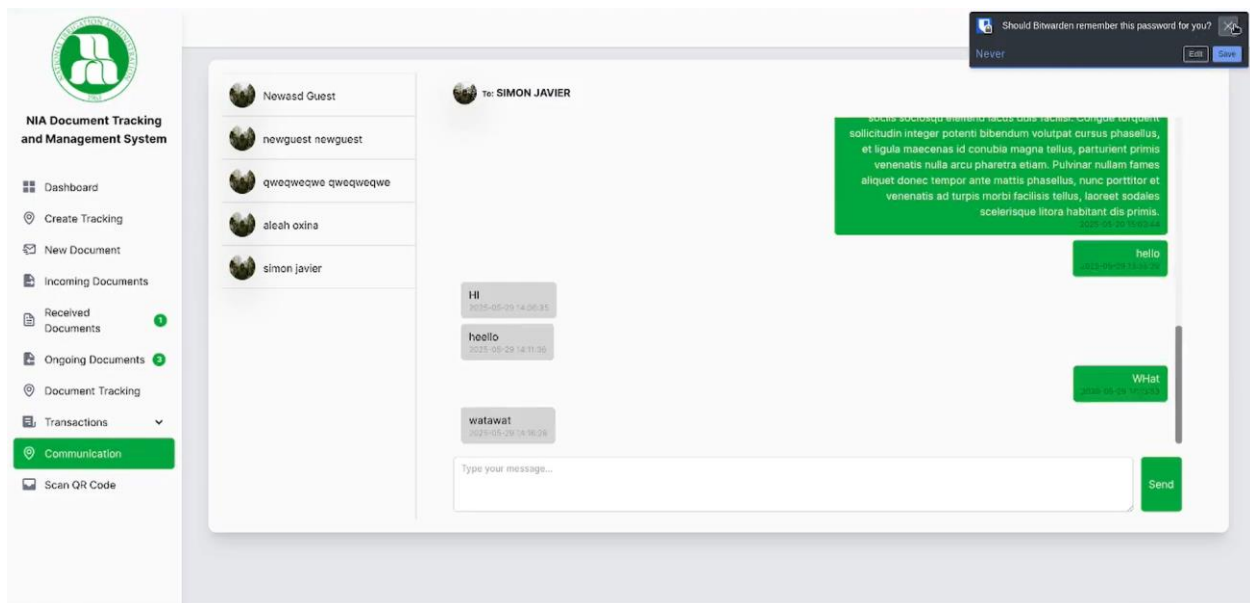


Figure 40. Communication

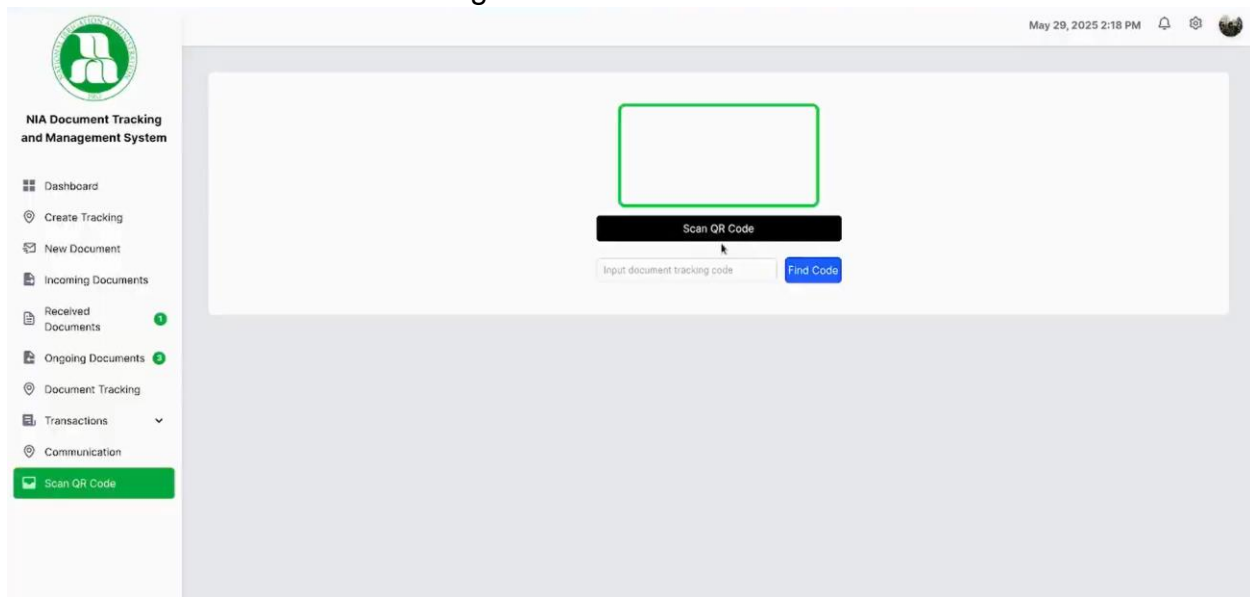


Figure 41. Scan QR Code

4. Testing Approach and Results

Testing Methods Used:

- Unit Testing: Performed on individual components (e.g., login module, upload module)
- Integration Testing: Validated document routing and approval chain
- System Testing: Full workflow testing from upload to archive
- User Acceptance Testing (UAT): Conducted with sample NIA users

Results:

Test Case	Expected Output	Actual Output	Status
-----------	-----------------	---------------	--------

Login	Redirect to dashboard	Successful
Document Upload	File stored and metadata saved	Successful
Routing	Notification sent to approver	Successful

5. Technologies and Frameworks Used

Component	Technology
Frontend	HTML, CSS, JavaScript (React or Vue)
Backend	PHP
Database	MySQL
Version Control	Git
Hosting	XAMPP (PHPMyAdmin, Apache)

6. Developer Notes / Installation Instructions

Option 1: XAMPP Setup (Easy Mode)

1. Download and Install XAMPP: <https://www.apachefriends.org/index.html>
2. Start Services
Open the XAMPP Control Panel and start:
 - Apache
 - MySQL
3. Project Setup
 - Place the project folder named document-tracking into htdocs:
 - C:\xampp\htdocs\document-tracking
 - Open [phpMyAdmin](#)
 - Create a new database named:
 - document-tracking-db
 - Import the provided SQL file:
 - document-tracking-db.sql
4. Run the Project
 - In your browser, go to: (<http://localhost/document-tracking/>)

Option 2: Manual Setup (Apache + PHP + MySQL + phpMyAdmin)

1. Ensure these are installed and configured:
 - Apache HTTP Server
 - PHP 7.4+
 - MySQL Server
 - phpMyAdmin (optional)
2. Project Directory

- Place the folder document-tracking in your server root directory:
 - Linux/macOS: /var/www/html/document-tracking
 - Windows: C:\wamp64\www\document-tracking

3. Database Setup

- Start MySQL
- Create database:

CREATE DATABASE document-tracking-db;

- Import SQL dump:
 - phpMyAdmin: import document-tracking-db.sql
 - OR CLI:

mysql -u root -p document-tracking-db < /path/to/document-tracking-db.sql

4. Run the Project

- Navigate to: (<http://localhost/document-tracking/>)

Run the Project

Easy Mode (XAMPP)

Just start Apache and MySQL, then go to: (<http://localhost/document-tracking/>)

Manual Setup

Follow the manual setup instructions above. After starting services and importing the DB, use the login credentials below to access the system.

Default System User Accounts

These credentials are used to log in to the web system, not the MySQL database.

User Role	Username	Password
System Admin	admin	admin
Document Handler	handler3	P4ss????
Record Office	simon2	P4ss????
Guest	simon1	P4ss????

After logging in, each role has access to their respective dashboards and features based on permission levels.

Note: These are demo/testing accounts. You can add, modify, or deactivate users via the Admin interface.