

Work Instructions Configuration Guide

Connected Worker Solutions



Title and Copyright

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Preface

Understand audience, know related documents and products and conventions followed in this document.

Intended Audience

This user guide is for plant maintenance field service technicians in your organization. The user guide familiarizes technicians with features and functionality of the Connected Back Office solution.

Document Conventions

Table 0-1 Conventions followed in the document

Convention	Meaning
boldface	Indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Indicates book titles, emphasis, or placeholder variables for which you supply values.
<code>monospace</code>	Indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter

Related Products & Solutions

- [iMaintenance Configuration Guide](#)
- [mRounds Configuration Guide](#)

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1. Introduction

The Work Instructions (WI) Configuration Guide is your blueprint for defining how Work Instructions operate across your organization.

Once WI is enabled within iMaintenance, this guide helps you transform the out-of-the-box capability into a structured, governed, and operationally aligned system tailored to your plants, maintenance practices, and compliance requirements.

Unlike deployment and infrastructure setup—which are typically managed by IT—this guide focuses on **functional configuration**. The settings described here determine how **Work Instructions** are created, controlled, accessed, versioned, secured, and made available to Supervisors and Technicians across web and mobile applications.

From enabling Work Instruction modules to defining roles and permissions, AI capabilities, localization, and mobile navigation behavior, each section of this guide helps you align WI with how your organization standardizes procedures, manages knowledge, and enforces safe execution in the field.

With this guide, you will:

- **Establish the foundation** → Enable DWI, configure tenant-level controls, and define environment behavior across iMaintenance and mRounds.
- **Control access and governance** → Create roles, assign permissions, and enforce segregation of duties.
- **Define repository behavior** → Configure centralized or product-specific Work Instruction visibility across 2.0 environments.
- **Manage feature availability** → Enable or disable modules, AI capabilities, and mobile navigation elements.
- **Support global operations** → Configure localization, language management, and platform-level settings.
- **Ensure operational alignment** → Align DWI behavior with plant structures, asset hierarchies, and maintenance workflows.

To set up the following configurations, refer to the [mRounds](#) and [iMaintenance](#) configuration guides:

- Manage user roles and permissions
- Maintain Master Data
- Customer Tenant Onboarding with Azure IDP
- Authentication Identity Configuration
- Log in to the Application
- Single Sign-On (SSO: Google or Microsoft)
- Troubleshoot Login Issues
- Configure Session Timeout
- Customize Platform Settings

1.1. About the Work Instructions Configuration Platform

WI configuration is managed through the administrative configuration layer available within iMaintenance. This platform allows functional administrators to control how Work Instructions are governed—without custom development.

From a centralized interface and configuration collections, administrators can:

- Enable or disable WI modules at the tenant level
- Define repository visibility (shared or product-specific)
- Configure AI feature access
- Manage roles and permissions
- Control mobile navigation visibility
- Maintain localization and translation settings

These configurations ensure that Supervisors can create and manage high-quality instructions, while Technicians receive controlled, consistent, and policy-aligned guidance during execution.

1.2. Who Should Use This Guide

This guide is intended for Functional and IT Administrators responsible for configuring, governing, and managing Digital Work Instructions across the organization.

- Professional Services (PSCS) teams responsible for implementation and rollout
- Customer Functional Administrators and DWI Owners Customer
- IT Administrators (as needed for authentication and environment setup)

This guide explains what customers and PSCS teams can configure directly in the platform and clearly identifies areas that require Innovapptive internal support.

If you create, execute, or provide feedback on Work Instructions, refer to the WI User Guides for Supervisors and Technicians.

If you define how Work Instructions behave across your organization, this is the correct guide.

2. Create Roles and Permissions

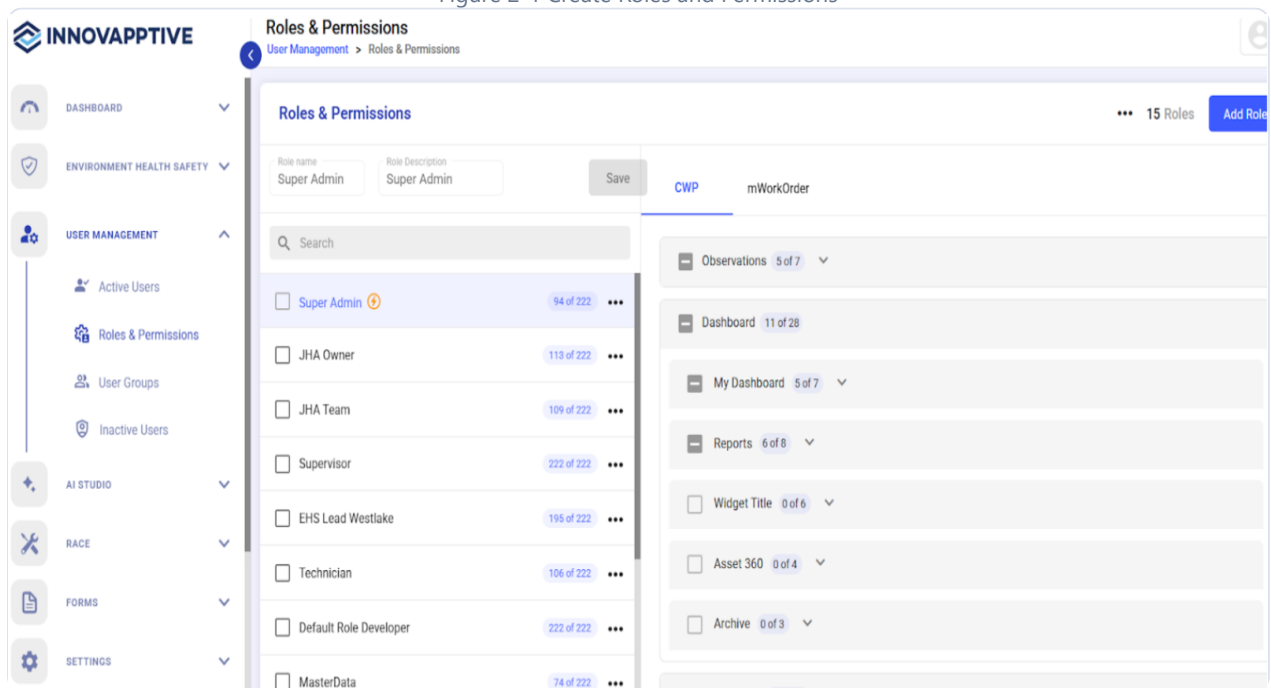
Roles control which Work Instructions modules a user can access. Each role defines what a user can view, create, review, approve, issue, or manage within the WI system.

Roles are typically aligned with WI personas such as Authors, Supervisors, and Technicians.

To create a role and assign permissions:

1. Navigate to **User Management > Roles and Permissions**.

Figure 2-1 Create Roles and Permissions



2. Click **Add Role**.
3. Enter the **Role Name** and **Role Description**.
4. Click **Save**.
5. Select the new role from the list.
6. Select the modules and permissions that are required for the role or persona on the right-side.
7. Click **Save**.

2.1. Manage Existing Roles

To manage existing roles:

1. Use the **More** icon > **Copy** to clone an existing role and modify it for a new persona.
2. Use the **More** icon > **Delete** to remove a role that is no longer required.

**Note:**

- The Super Admin role **cannot** be edited or deleted. It can only be copied.
- You **cannot delete a role** that is currently assigned to users. Unassign users first, then delete the role.
- You cannot delete roles that are assigned to users or edit the Super Admin role.
- Assign permissions carefully to ensure segregation of duties — for example, the same user should not both issue and authorize permits unless required by policy.

Best Practice for WI Role Design

Align roles with responsibilities:

- **Author** - Create, edit, archive, view, publish, restore, duplicate, auto-assign DWIs, and view feedback
- **Work Instruction Reviewer / Supervisor** - Create, edit, archive, view, publish, restore, duplicate, auto-assign DWIs, and view feedback
- **Work Instruction Consumer (Technician) on mobile** - View, execute, submit feedback, and upload attachments in feedback
- **Admin** - Create, edit, archive, view, publish, restore, duplicate, auto-assign DWIs, and view feedback

3. Database Configuration (Web Based)

These configurations can be added manually or through the DWI OOTB migration script:

```
AlphaInbound/migrationScripts/2604.01/enable-dwi.js
```

Sidebar Module Configuration

The web app exposes DWI through the work-instructions route. That route is protected by SidebarAvailabilityGuard, which reads the sidebar-config document from the Configuration collection.

Field	Value
Collection	Configuration
Type	sidebar-config
Key Path	config.modules[].moduleName = "Work Instructions"

JSON configuration:

```
"type": "sidebar-config",
"config": {
  "modules": [
    {
      "moduleName": "Work Instructions",
      "enabled": true,
      "subModules": []
    }
  ]
}
```



Note:

Set enabled: false to hide the Work Instructions module from the web sidebar and block guarded navigation.

4. Configure AI

The AI configuration controls the availability of AI-powered features in WI at the plant level.

Supervisors/Authors can selectively enable or disable individual AI agents based on rollout strategy and readiness.



Note:

- AI configurations are stored in the database and can be customized per tenant.
- Ensure consistent settings across modules and levels to avoid unexpected behavior in AI feature availability.

The web app and Work Instructions service use `baseUrlConfig.config.aiWorkInstruction` for AI-powered document/video processing and publish-time chunking.

Field	Value
Collection	Configuration
Type	baseUrlConfig
Key Path	config.aiWorkInstruction

JSON configuration:

```
"type": "baseUrlConfig",
"config": {
  "aiWorkInstruction": "https://cwp-ai-prod.innovapptive.com/"
}
```

The frontend app appends:

```
dw1/video/process
dw1/document/process
```

The backend app appends:

```
assist/process/documents/work-instruction-chunks
assist/process/documents/work-instruction-chunks/delete
```

5. Configure Offline Capability

After the initial login, the Download tab appears only after enabling the following setting: **Key name is:**

"offlineDownloadEnabled": false

```
{
  "_id": {
    "$oid": "69f4818181ddd474d992d773"
  },
  "type": "dwiConfig",
  "plant": {
    "$oid": "682319d8c23c1557532a3944"
  },
  "config": {
    "category": [
      "Assembl Instructions",
      "Operational Work Instructions",
      "frnch pdf"
    ],
    "product": [
      "mRounds",
      "iMaintenance"
    ],
    "offlineDownloadEnabled": false
  },
  "createdAt": {
    "$date": "2026-05-01T10:33:37.542Z"
  },
  "updatedAt": {
    "$date": "2026-07-20T18:46:53.910Z"
  },
  "__v": 0
}
```

6. DWI Plant Configuration (Web)

The web DWI authoring flow reads dwiConfig to populate allowed categories and valid products for a plant.

Field	Value
Collection	Configuration
Type	dwiConfig
Scope	One document per active plant

JSON configuration:

```
"type": "dwiConfig",
"plant": "<Plant ObjectId>",
"config": {
  "category": [],
  "product": ["mRounds", "iMaintenance"]
}
```

Categories can start as an empty array and be maintained later through the DWI category APIs/UI if the role has category permissions.

Optional Work Order and Operation Tab Configuration

This is shared with the mobile setup. Tenants that expose DWI from work-order or operation detail surfaces should keep these tab configs enabled.

Field	Value
Collection	Configuration
Types	workOrderTabConfig, operationTabConfig
Key	workInstructions

workOrderTabConfig JSON:

```
"type": "workOrderTabConfig",
"config": [
{ "name": "details",      "enabled": true },
{ "name": "operation",    "enabled": true },
{ "name": "component",    "enabled": true },
{ "name": "form",         "enabled": true },
{ "name": "attachment",   "enabled": true },
{ "name": "followUpIssue", "enabled": true },
{ "name": "permit",       "enabled": false },
{ "name": "workInstructions", "enabled": true },
{ "name": "subworkOrder",  "enabled": true },
{ "name": "evidence",     "enabled": true }
]
```

operationTabConfig JSON:

```
"type": "operationTabConfig",
"config": [
{ "name": "operation",    "enabled": true },
{ "name": "component",    "enabled": true },
{ "name": "attachment",   "enabled": true },
{ "name": "permit",       "enabled": false },
{ "name": "form",         "enabled": true },
{ "name": "workInstructions", "enabled": true }
]
```

**Note:**

Keep permit independent. Enabling DWI should not automatically enable Permit tabs.

Enable Permissions on CWP Portal

Once the database configuration is present, enable the appropriate role permissions in the CWP Portal.

Available Web Permissions

Permission	Key	Description
View Work Instructions	VIEW_WORK_INSTRUCTION	Allows the user to open the Work Instructions module and view DWI records.
Create Work Instructions	CREATE_WORK_INSTRUCTION	Allows creating new work instructions and duplicating existing ones.
Update Work Instructions	UPDATE_WORK_INSTRUCTION	Allows editing, publishing, reverting, and discarding work instructions.
Delete Work Instructions	DELETE_WORK_INSTRUCTION	Allows deleting work instructions and versions.
Delete Archived Work Instructions	DELETE_WORK_INSTRUCTION_ARCHIVE	Allows delete access for archived DWI entries.
View Categories	VIEW_WORK_INSTRUCTION_CATEGORY	Allows category dropdowns and category list APIs.
Create Categories	CREATE_WORK_INSTRUCTION_CATEGORY	Allows creating DWI categories.
Update Categories	UPDATE_WORK_INSTRUCTION_CATEGORY	Allows renaming DWI categories.
Delete Categories	DELETE_WORK_INSTRUCTION_CATEGORY	Allows deleting unused DWI categories.
View Smart Steps	VIEW_WORK_INSTRUCTION_SMARTSTEP	Allows viewing Smart Steps and preview/detail routes.
Create Smart Steps	CREATE_WORK_INSTRUCTION_SMARTSTEP	Allows creating reusable Smart Steps.
Update Smart Steps	UPDATE_WORK_INSTRUCTION_SMARTSTEP	Allows editing Smart Steps.
Delete Smart Steps	DELETE_WORK_INSTRUCTION_SMARTSTEP	Allows deleting Smart Steps.
View User Activity	VIEW_USER_ACTIVITY	Allows viewing feedback/user activity in DWI.

Mobile / work-order execution permissions (if needed):

Permission	Key	
View Mobile Work Instructions	VIEW_WORK_INSTRUCTIONS_mWO	Shows DWI in mWorkOrder More/work-instruction areas.
Add Mobile Work Instructions	ADD_WORK_INSTRUCTIONS_mWO	Allows adding DWI to mobile work-order execution contexts.
Remove Mobile Work Instructions	REMOVE_WORK_INSTRUCTIONS_mWO	Allows removing DWI from mobile work-order execution contexts.

How to Enable Permissions

Follow this navigation path in the CWP Portal:

```

CWP Portal
-> User Management
-> Roles & Permissions
  -> Select your Role
    -> Select Product -> CWP
      -> Work Instruction Access Manager
        -> Select / Deselect required permissions
  
```

1. Log in to the CWP Portal.
2. Navigate to User Management → Roles & Permissions.
3. Select the role you want to configure.
4. Choose product CWP.
5. Open Work Instruction Access Manager.
6. Enable the required Work Instruction, Category, Smart Steps, Archive, and User Activity permissions.
7. Save the changes.
8. Ask users to refresh or sign in again so the token/user-permission cache reflects the new permissions.

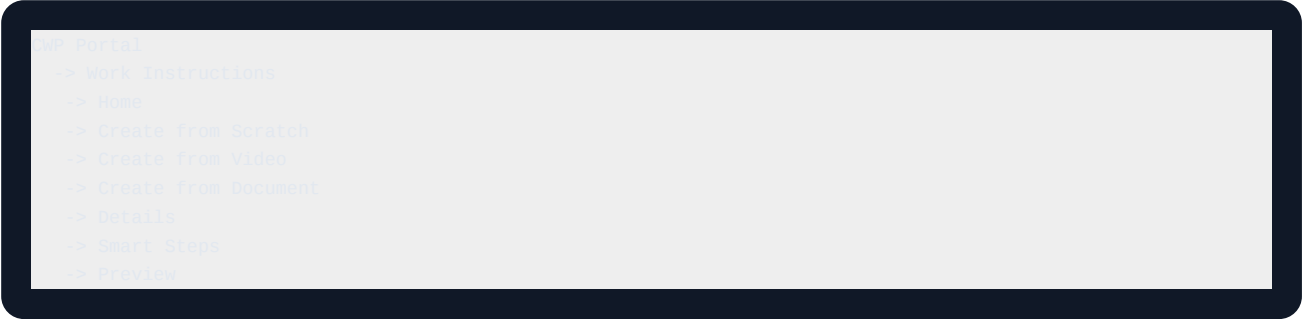
**Note:**

At minimum, a read-only web user needs VIEW_WORK_INSTRUCTION, VIEW_WORK_INSTRUCTION_CATEGORY, and VIEW_WORK_INSTRUCTION_SMARTSTEP for the main list/detail/preview paths to work cleanly.

7. Web Route and Runtime Validation

After database and role setup, validate the web app from the CWP Portal.

Navigation path:

A screenshot of a web application's navigation sidebar. The sidebar has a dark blue header with the text 'CWP Portal' in white. Below the header, there is a list of navigation items, each preceded by a right-pointing arrow. The items are: 'Work Instructions', 'Home', 'Create from Scratch', 'Create from Video', 'Create from Document', 'Details', 'Smart Steps', and 'Preview'.

```
CWP Portal
-> Work Instructions
-> Home
-> Create from Scratch
-> Create from Video
-> Create from Document
-> Details
-> Smart Steps
-> Preview
```

Validation steps:

1. Confirm Work Instructions appear in the web sidebar.
2. Open work-instructions.
3. Confirm the Work Instructions list loads without an access-denied redirect.
4. Confirm plant and category filters load.
5. Create a draft DWI if the role has `CREATE_WORK_INSTRUCTION`.
6. Edit and publish a DWI if the role has `UPDATE_WORK_INSTRUCTION`.
7. Open Smart Steps/Preview if the role has `VIEW_WORK_INSTRUCTION_SMARTSTEP`.
8. Process a video/document if AI processing is enabled and `baseURLConfig.config.aiWorkInstruction` points at the correct environment.
9. Download a DWI PDF to validate the PDF render route.

Route	Required Gate
/work-instructions	Sidebar module enabled + VIEW_WORK_INSTRUCTION
/work-instructions/create-from-scratch	CREATE_WORK_INSTRUCTION
/work-instructions/create-from-video	CREATE_WORK_INSTRUCTION
/work-instructions/create-from-document	CREATE_WORK_INSTRUCTION
/work-instructions/details	VIEW_WORK_INSTRUCTION; edit mode also needs UPDATE_WORK_INSTRUCTION
/work-instructions/smart-steps	VIEW_WORK_INSTRUCTION_SMARTSTEP
/work-instructions/preview	VIEW_WORK_INSTRUCTION_SMARTSTEP
/work-instructions/pdf-print	VIEW_WORK_INSTRUCTION

Database Configuration (Mobile Based)

These configurations can be added manually or via an OOTB script.

Operation Tab Configuration

Dynamically enable or disable operation tabs using the following configuration.

Field	Value
Table Name	Configuration
Type	operationTabConfig

JSON configuration:

```
{
  "type": "operationTabConfig",
  "config": [
    { "name": "operation", "enabled": true },
    { "name": "component", "enabled": true },
    { "name": "attachment", "enabled": true },
    { "name": "permit", "enabled": true },
    { "name": "form", "enabled": true },
    { "name": "workInstructions", "enabled": true }
  ]
}
```

Available Tabs:

Tab Name	Key	Default
Operation	operation	true
Component	component	true
Attachment	attachment	true
Permit	permit	true
Form	form	true
Work Instructions	workinstructions	true

**Note:**

\Set "enabled": false for any tab you want to hide from the mobile app UI.

8. Enable or Disable Modules in iMaintenance

WI modules can be enabled or disabled at the tenant level. These settings determine whether the modules are visible and accessible to all users across the mobile application. The tenantLevel flag controls module availability globally across all plants.

tenantLevel Flag

Purpose: Controls module access at the Tenant level.

Enable or disable WI at the tenant level in the mobile application using the following configuration.

Field	Value
Table Name	Tenant
Key Path	configs.featureAccessConfig.modules.dwi

JSON Configuration:

```
{ "configs": { "featureAccessConfig": { "modules": { "dwi": { "enabled": true } } } }
```



Note:

Set "enabled": false to completely disable WI for the tenant.

Options:

- true: Enables the selected WI module for all plants under the tenant.
- false: Disables the selected WI module globally across all plants.

Default Value: true

Set tenantLevel to:

- true if you want all plants to access the WI module.
- false to completely disable the WI module across the tenant.

Impact of Disabling the WI Module:

If disabled:

- Supervisors cannot create or manage Work Instructions.
- Work Instructions cannot be linked to Work Order.
- Technicians cannot access or execute Work Instructions.
- Version management, feedback review, and archive functions are unavailable.

Disabling the module effectively removes WI functionality from both Supervisor and Operator workflows.

**Note:**

This flag controls mobile app access only and has no effect on the web sidebar route.

Enable Permissions on CWP Portal

Once the database configurations are in place, permissions must be enabled on the CWP Portal for the appropriate roles.

Available Permissions:

Permission	Key	Description
View Work Instructions	view_work_instructions	Found in the More section. Enables or disables DWI completely (including the More section) for that role.
Add Work Instructions	add_work_instructions_mWO	Allows the role to add DWI to a work order.
Remove Work Instructions	remove_work_instructions_mWO	Allows the role to remove DWI from a work order.

How to Enable Permissions

Follow the navigation path below in the CWP Portal:

CWP Portal — User Management — Roles & Permissions — Select your Role
— Select Product — iMaintenance — Select / Deselect the required permissions

1. Log in to the CWP Portal.
2. Navigate to User Management → Roles & Permissions.
3. Select the role you want to configure. Choose the product iMaintenance.
4. Locate and toggle the desired permissions:
 - View Work Instructions — to enable/disable WI visibility entirely.
 - add_work_instructions_mWO — to allow adding WI.
 - remove_work_instructions_mWO — to allow removing WI.
5. Save the changes.

**Note:**

Disabling View Work Instructions will hide WI across the entire app for that role, including the More section.

Form Field Configuration

To surface the DWI field inside the Work Order and Operation forms on the mobile app, it must be added via the CWP Portal's Field Configuration tool.

Navigation Path:

CWP Portal — Field Configurations (sidebar) — Select Template (Work Order or Operation)
Add Field — Output Data: "Work Instructions"

1. Log in to the CWP Portal.
2. In the sidebar, select **Field Configurations**.
3. Choose the template you want to configure: Work Order or Operation.
4. Click Add Field.
5. Set the field's Output Data value to: Work Instructions.
6. Save the template.



Note:

This step must be done for each template (Work Order and Operation) where you want the DWI field to appear.

Configuration Requirements

To access Work Instructions across environments, the following configuration is required:

- 2.0 environment URL mapping
- Token-based authentication
- Context parameters passed from the consuming application:
 - Plant
 - Work Center
 - Equipment
 - Functional Location
- iFrame embedding configuration



Note:

Auto-assignment is not supported in mRounds; users must manually assign Work Instructions.

9. Configure Bottom Navigation (Mobile)

The Bottom Navigation configuration controls whether the Work Instructions tab is visible in the DWI mobile application.

This configuration is flag-based and is managed at the system configuration level.

Configuration Behavior:

- When the flag is set to true, the Work Instructions tab is visible in the bottom navigation for all Operators and Supervisors.
- When the flag is set to false, the tab is hidden.

10. Manage Localization

The Localization feature allows administrators to manage language translations for Innovapptive products across web and mobile applications.

It is commonly used to translate UI labels, messages, and form text into regional languages or to align terminology with site-specific safety and operational vocabulary.

To add a new language:

1. Expand **RACE** and click **Localization**.
2. Click **Add Language** and select **Add Manually**.
3. In the Add Language window, select the **Language** and **applicable Products**.
4. Click **Done**.

The newly added language appears in the list.

5. Click the **More** icon and select **Edit**.

You can view the total translated string count for that product in its released version.

6. Translate all the strings for the selected language.
7. Click the **More** icon on the top right.
 - Select **Clear All Strings** to clear all strings at once.
 - Select **Refresh AI Translations** to use AI suggestions and clear them if needed.

Tip: Enable the **Show Empty Strings** toggle at the bottom to quickly identify untranslated strings.

8. Once all the strings are translated, click **Publish**.

Additional Localization Options:

In the Localization screen, you can also:

- Use the Product drop-down to view:
 - All Products (default), or
 - Individual products (for example, CWP Web, iMaintenance Mobile, etc.)
- Sort languages using the Sort icon on any column header.
- View the total number of configured languages (for example, "18 Languages") at the top.
- Use the **Search** bar to quickly locate a specific language or product. Apply filters using the Filter icon (for example, Last Modified On, Last Modified By).
- Click **Add Language** > **Upload Excel** to upload translations using an Excel template.
- Click the **More** icon and select **Download Excel Template** to download the template.