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Purpose of the Document

The purpose of this document is to define the testing approach and overall framework that will guide the execution of User Acceptance Testing (UAT) for the Comprehensive Database Management System (CDBMS) developed for the Central Academy for State Forest Service (CASFOS), Coimbatore.

This document ensures that all functionalities specified in the Software Requirements Specification (SRS) and performance metrics outlined in the Service Level Agreement (SLA) are validated against user expectations and operational needs. It outlines the strategic testing methodology, scope, objectives, environment, roles, and acceptance criteria to confirm that the system is ready for deployment and capable of providing a secure, efficient, and user-friendly data management user experience.

User Acceptance Testing will focus on validating:

- Functional correctness across all user roles (Faculty EntryStaff,Faculty Verifier,Store Keeper,Asset Manager,Head Of Office,Viewer,Principal).
- Hierarchical complaint workflow and escalation mechanisms.
- Real-time notifications and dashboard analytics.
- Role-based access, secure media handling, and reporting features.
- Compliance with performance, security, and usability standards.

The outcome of this UAT process will determine whether the Comprehensive Database Management System meets the expectations of its stakeholders and fulfills its intended purpose before going live.

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1   Introduction

1.1   PURPOSE

The purpose of this User Acceptance Testing (UAT) document is to outline the strategy, scope, and execution plan for validating that the Comprehensive Database Management System(CDBMS) meets the functional and non-functional requirements specified in the Software Requirements Specification (SRS) and Service Level Agreement (SLA). UAT aims to ensure the system is user-friendly, reliable, and capable of supporting stakeholders (Faculty Entry Staff,Faculty Verifier,Store keeper,Asset Manager,Head of Office,Viewer,Principal) in lodging, tracking the data efficiently at CASFOS. The testing will confirm that the system aligns with stakeholder expectations and complies with operational, security, and performance standards.

1.2   PROJECT OVERVIEW

The **Comprehensive Database Management System (CDBMS)** is a web-based application built using the MERN stack (MongoDB, Express.js, React.js, Node.js) to streamline and digitize faculty and asset data management within an institution. The system incorporates structured multi-level workflows—Faculty data flows from Faculty Entry Staff → Faculty Verifier → Head of Office → Principal, while Asset data flows from Store Keeper → Asset Manager → Head of Office → Principal—ensuring proper verification, approval, and accountability at each stage. Role-based access control (RBAC) is implemented to restrict user actions based on their roles, with additional access for viewers to monitor all records. CDBMS supports real-time updates, status tracking, PDF/Excel report generation, document uploads, and analytics dashboards, enhancing transparency, operational efficiency, and decision-making across departments.

2   Scope

2.1   IN-SCOPE

The UAT will cover the following aspects of the Comprehensive Database Management System (CDBMS):

- _**Functional Requirements**:_

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- o *User authentication and Role-Based Access Control (RBAC) for roles (Faculty Entry Staff, Faculty Verifier, Store Keeper, Asset Manager, Head of Office, Viewer, Principal).*

- o *Faculty data entry, verification, and approval workflow: Faculty Entry Staff → Faculty Verifier → Head of Office → Principal.*

- o *Asset data entry, management, and approval workflow: Store Keeper → Asset Manager → Head of Office → Principal.*

- o *Real-time notifications and status updates during each stage of the workflow.*

- o *Dynamic forms with file/document uploads (educational proof, item bill, warranty, signed PDFs, etc.).*

- o *Dashboards for analytics and summaries (total assets/faculty, pending approvals, department-wise distribution).*

- o *Advanced filters and search functionalities (by department, domain, status, date, etc.).*

- o *Report generation in PDF and Excel formats for faculty and asset records.*

- o *View-only access for the Viewer role to monitor all data without edit privileges.*

- ● ***Non-Functional Requirements***:

  - o *System uptime (≥99% annually).*

  - o *Response time (≤10 seconds for key operations).*

  - o *Scalability (50 concurrent users).*

  - o *Security (HTTPS/TLS 1.3, JWT authentication).*

  - o *Usability across devices (desktop, tablet, mobile) and browsers (Chrome, Firefox, Edge, Safari).*

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The following are excluded from UAT:

- ● *Testing of underlying server hardware or network infrastructure (assumed to be managed by CASFOS IT).*

- ● *Unit and integration testing (handled in earlier development phases).*

- ● *Performance testing beyond specified concurrent users (50 users) or data entry (100/day).*

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- _Testing on unsupported browsers or outdated OS versions._

3   Testing Strategy

3.1   TEST OBJECTIVES

The objectives of UAT are to:

- _Verify that the system meets all functional requirements outlined in the Software Requirements Specification (SRS), including faculty and asset data submission, approval workflows, notifications, and reporting._
- _Validate non-functional requirements such as usability, system responsiveness (≤10 seconds), scalability (≥50 concurrent users), and security controls (role-based access, file upload restrictions)._
- _Ensure intuitive usability across all user roles (Faculty Entry Staff, Faculty Verifier, Store Keeper, Asset Manager, Head of Office, Principal, Viewer) and compatibility across supported devices and modern web browsers._
- _Confirm that the system improves operational efficiency and stakeholder satisfaction (target ≥90% based on UAT feedback forms)._

3.2   TEST ASSUMPTIONS

- _All UAT participants are familiar with basic system operations and possess general computer literacy._
- _The UAT environment replicates the production stack: Ubuntu 22.04 LTS / Windows Server, MongoDB v7.x, Node.js v20.x, React v18+._
- _Sample data including faculty and asset entries, uploaded documents, and signed PDFs will be preloaded or created during testing._
- _Stable internet connectivity (≥10 Mbps) and browser compatibility (Chrome, Firefox, Edge) are ensured._
- _Any bugs or issues raised during UAT will be tracked and resolved by the development team before system deployment._

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3.3 DATA APPROACH

- **Test Data**: *Synthetic data simulating real scenarios, including::*
    - o *Faculty entries with diverse designations, departments, educational backgrounds, and uploaded credentials.*
    - o *Asset entries of various categories (Permanent, Consumable), departments, and condition statuses.*
    - o *Uploaded documents: photos, certificates, bills, signed PDFs (≤5 MB each).*
    - o *Simulated workflows covering all roles and status transitions (e.g., pending, verified, rejected, approved).*

- **User Accounts:** *Individual test logins for each role (Faculty Entry Staff, Verifier, Store Keeper, etc.) will be provisioned with sample credentials.*
- **Data Cleanup:** *Upon UAT completion, all test data will be purged, and the database will be reset to ensure a clean slate for production deployment.*

3.4 LEVEL OF TESTING

List the types of testing to be performed.

Test Type	Description	Responsible Parties
Functional Testing	Validates that all core features of the CDBMS function according to the SRS, including faculty and asset data entry, multi-level approval workflows (Faculty Entry → Verifier → HOO → Principal, Store Keeper → Asset Manager → HOO → Principal), file uploads (≤5 MB), real-time notifications (≤1 minute), and report generation (PDF/Excel ≤15 seconds).	UAT Team (Faculty Staff, Store Keeper, Asset Manager, HOO, Principal), QA Team
Non-Functional Testing	Tests system performance (response time ≤3 seconds), scalability (≥50 concurrent users), reliability (≥99% uptime), and security (JWT-based	UAT Team, QA Team, Institution IT Support Team

	RBAC, file validations). Also includes cross-platform compatibility (desktop, tablet, mobile) and cross-browser support (Chrome, Firefox, Edge).	
Usability Testing	Assesses UI intuitiveness and user-friendliness across all roles. Tests interface navigation, ease of data entry, clarity of error/success toasts, responsiveness, and accessibility features. Success is measured by achieving ≥90% satisfaction in user feedback surveys.	UAT Team (Faculty Entry Staff, Store Keeper, Asset Manager, HOO, Principal, Viewer)

4 UAT Test Case Table

4.1 DEFECT IMPACT MATRIX

Defects found during the Testing should be categorized as below:

Severity	Impact
1 (Critical)	▪ *Functionality is blocked and no testing can proceed* ▪ *Application/program/feature is unusable in the current state*
2 (High)	▪ *Functionality is not usable and there is no workaround but testing can proceed*
3 (Medium)	▪ *Functionality issues but there is workaround for achieving the desired functionality*
4 (Low)	▪ *Unclear error message or cosmetic error which has minimum impact on product use.*

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4.2 FUNCATIONAL TESTING

Test Case ID	Field Name	Test Scenario	Preconditions	Test Steps	Expected Result	Actual Result	Status	Comments
				Login Page				
UAT_TC_FT_001	Username, Password, Role	Verify login with valid username, password, and role and	User account exists	1. Enter valid username, password 2. Select correct role 3. Click Login	Redirect to the corresponding dashboard			
UAT_TC_FT_002	Username (Invalid)	Invalid username with valid password and role	No such username exists	1. Enter **invalid** username 2. Enter valid password 3. Select role 4. Click Login	Show error: "Invalid username or password"			
UAT_TC_FT_004	Password (Invalid)	Invalid password with valid username and role	User account exists	1. Enter valid username 2. Enter **wrong** password 3. Select role 4. Click Login	Show error: "Invalid username or password"			
UAT_TC_FT_004	Submit Button	Verify that the submit button logs in the user with valid credentials and shows an error for invalid credentials	User has access to the login page; test user accounts are set up	1. Navigate to the login page. 2. Enter valid username and password, then click Submit. 3. Enter invalid username/password, then click Submit. 4. Leave fields blank and click Submit.	Valid credentials redirect to the dashboard; invalid or blank credentials show an error message (toast notification)			
				New User Registration				
UAT_TC_FT_001	Username	Validate username field	Page is loaded	Enter a valid username in the username field	Username should be accepted			

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UAT_TC_FT_002	Password	Validate password visibility toggle	Page is loaded	Click the eye icon to toggle password visibility	Password field toggles between 'password' and 'text'			
UAT_TC_FT_003	Password	Validate password entry	Page is loaded	Enter a valid password in the password field	Password should be masked (unless visibility is toggled)			
UAT_TC_FT_004	DOB	Validate Date of Birth field	Page is loaded	Select a valid date from the calendar	Date should be selected and displayed in input			
UAT_TC_FT_005	Designation	Validate designation field	Page is loaded	Enter designation in the input field	Designation is accepted			
UAT_TC_FT_006	Phone No	Validate phone number input	Page is loaded	Enter valid phone number (e.g., 10 digits)	Phone number is accepted			
UAT_TC_FT_007	Organization	Validate Organization input	Page is loaded	Enter organization name	Organization input is accepted			
UAT_TC_FT_008	Ministry	Validate ministry input	Page is loaded	Enter ministry name	Ministry input is accepted			
UAT_TC_FT_009	Role Selection	Select a user role from the list	Page is loaded	Click on any role (e.g., "Asset Manager")	Selected role is highlighted			
UAT_TC_FT_009	Submit	Successful form submission	All required fields filled with valid inputs	1.Fill all required fields 2.Click Register	User is redirected to login page with success			
UAT_TC_FT_010	Submit	Duplicate user registration	Username already exists	1.Enter an existing username and other valid data 2.Click Register	Message "User already exists"			
			Store Keeper-Dashboard					
UAT_TC_FT_001	Sidebar navigation	Verify that all sidebar links	User is logged in as a storekeeper	Click on each sidebar link (Home, Asset Store, Asset	Each link directs to its respective			

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		navigate to the correct pages		Issue, Asset Return, Asset Updation, Asset View) 2. Observe the page that loads	page without errors			
UAT_T C_FT_ 002	Notification Icon	Verify that clicking the notification bell displays recent notification s	At least one notification exists for the user	1.Click on the notification bell icon 2. Observe the notification panel	Notification panel displays recent notifications with correct details			
Asset Store								
UAT_T C_FT_ 001	Asset Type	Verify that the user can select an asset type (Permanent /Consumab le) in the Store/Recei pt Entry tab	User is logged in, Store/Receipt Entry tab is active	1. Navigate to the Store/Receipt Entry tab. 2. Click the "Asset Type" dropdown. 3. Select "Permanent". 4. Select "Consumable".	The dropdown displays "Permanent" and "Consumable" options. The selected value is updated in the form without errors.			
UAT_T C_FT_ 002	Asset Category	Verify that asset category options change based on asset type in the Store/Recei pt Entry tab	Asset Type is selected (e.g., Permanent)	1. Set Asset Type to "Permanent". 2. Check the "Asset Category" dropdown. 3. Set Asset Type to "Consumable". 4. Check the "Asset Category" dropdown again.	For "Permanent", categories like "Furniture", "Building", "Land" are shown. For "Consumable", categories like "Stationery", "IT" are shown.			
UAT_T C_FT_ 003	Add Item	Verify that EE can enter Verify that the user can add multiple items in the	Store/Receipt Entry tab is active	1. Click the "Add Item" button. 2. Enter item details (e.g., Item Name: "Chair", Quantity: 5). 3. Click "Add Item" again. 4. Enter another item (e.g., Item Name: "Table", Quantity: 2).	New item fields are added dynamically each time "Add Item" is clicked. Both items are displayed in the form with correct details.			

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		Store/Receipt Entry tab or defer via the Update button						
UAT_T C_FT_ 004	Form Validation	Verify that form validation prevents submission with missing required fields in Store/Recei pt Entry	Store/Receipt Entry tab is active	1. Leave "Asset Type" and "Asset Category" empty. 2. Click the "Submit" button.	An error message (via SweetAlert) is displayed listing missing fields (e.g., "Asset Type is required", "Asset Category is required"). The form is not submitted.			
UAT_T C_FT_ 005	Submit Store Entry	Verify that the user can successfull y submit a valid store entry	All required fields are filled, backend server is running	1. Set Asset Type to "Permanent". 2. Set Asset Category to "Furniture". 3. Add an item (e.g., Item Name: "Desk", Quantity: 10, Unit Price: 100). 4. Fill other required fields (e.g., Entry Date, Supplier). 5. Click "Submit".	A success message (via SweetAlert) is displayed: "Inventory saved!". The form resets, and the data is sent to the backend.			
UAT_T C_FT_ 006	File Upload	Verify that the user can upload a photo in the Store/Recei pt Entry tab	Store/Receipt Entry tab is active, valid image file (e.g., JPG) is available	1. Click the "Photo" file input. 2. Select a valid JPG file (<5MB). 3. Submit the form.	The file is uploaded successfully, and a preview URL is displayed. The form submission includes the file data.			
UAT_T C_FT_ 007	Invalid File Upload	Verify that an invalid file type is rejected in the Store/Recei pt Entry tab	Store/Receipt Entry tab is active, invalid file (e.g., .txt) is available	1. Click the "Photo" file input. 2. Select a .txt file. 3. Attempt to submit the form.	An error message (via SweetAlert) is displayed: "Invalid File Type. Only JPG, PNG, and PDF are allowed".			

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					The file is not uploaded.			
UAT_T C_FT_ 008	Returned Assets Receipt	Verify that the user can generate and download a receipt for a returned asset	Returned Assets tab is active, returned assets are available in the database	1. Navigate to the Returned Assets tab. 2. Select a returned asset from the list. 3. Click the "Download Receipt" button.	A PDF receipt is generated and downloaded with correct asset details (e.g., Item Name, Return Date). The PDF is properly formatted.			
UAT_T C_FT_ 009	Upload Signed Receipt	Verify that the user can upload a signed receipt for a returned asset	Returned Assets tab is active, a valid PDF file is available	1. Navigate to the Returned Assets tab. 2. Select a returned asset. 3. Click the "Upload Signed Receipt" file input. 4. Select a valid PDF file. 5. Submit the upload.	The PDF is uploaded successfully, and a success message (via SweetAlert) is displayed. The backend updates the asset's receipt status.			
UAT_T C_FT_ 010	Serviced Asset Submission	Verify that the user can submit servicing details for an asset	Serviced/Maint enance tab is active, servicable items are available	1. Navigate to the Serviced/Maintenance tab. 2. Select an item from the "Select Servicable Item" dropdown. 3. Enter servicing details (e.g., Service Date, AMC From/To Dates). 4. Click "Submit".	A success message (via SweetAlert) is displayed: "Servicing details saved!". The form resets, and the data is sent to the backend.			
UAT_T C_FT_ 011	Condemnatio n Submission	Verify that the user can submit condemnati on details for an asset	Condemnation tab is active, disposable items are available	1. Navigate to the Condemnation tab. 2. Select a disposable item. 3. Enter condemnation details (e.g., Condemnation Year, Reason). 4. Click "Submit".	A success message (via SweetAlert) is displayed: "Condemnation details saved!". The form resets, and the data is sent to the backend.			

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UAT_T C_FT_ 012	Building Upgrade Addition	Verify that the user can add a building upgrade	Building Upgrade tab is active, building data is available	1. Navigate to the Building Upgrade tab. 2. Click "Add Building Upgrade". 3. Enter upgrade details (e.g., Year, Estimate, Execution Agency). 4. Click "Submit".	A new upgrade form is added dynamically. On submission, a success message (via SweetAlert) is displayed, and the data is saved to the backend.		
Asset Manager(for Approval)
UAT_T C_FT_ 001	Tab Navigation	Verify that the user can switch between tabs	User is logged in, Asset Approval page is loaded	1. Click on the "Purchase" tab. 2. Click on the "Issue" tab. 3. Click on the "Return" tab. 4. Repeat for all tabs (Exchange, Service, Disposal, Asset Updation, Building Upgradation, Building Maintenance).	The active tab updates correctly, and the corresponding table/content is displayed without errors. The UI reflects the active tab with highlighted styling.		
UAT_T C_FT_ 002	Purchased Assets Table	Verify that purchased assets are displayed in the Purchase tab	User is logged in, Purchase tab is active, purchased assets exist in the database	1. Navigate to the Purchase tab. 2. Observe the table.	The table displays columns (Asset Type, Asset Category, Supplier Name, Date Purchased, Details, Action) with correct data for each purchased asset.		
UAT_T C_FT_ 003	Approve Purchased Asset	Verify that the user can approve a purchased asset	Purchase tab is active, at least one purchased asset is available	1. Navigate to the Purchase tab. 2. Click the "Approve" button for a purchased asset.	A success message (via SweetAlert) is displayed: "The Asset Entry has been Approved." The asset is		

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					removed from the table.			
UAT_T C_FT_ 004	Reject Purchased Asset	Verify that the user can reject a purchased asset with a remark	Purchase tab is active, at least one purchased asset is available	1. Navigate to the Purchase tab. 2. Click the "Reject" button for a purchased asset. 3. Enter a remark (e.g., "Invalid supplier details"). < 4. Click "Submit". .	A success message (via SweetAlert) is displayed: "The Asset Entry has been rejected." The asset is removed from the table.			
UAT_T C_FT_ 005	View Purchased Asset Details	Verify that the user can view details of a purchased asset	Purchase tab is active, at least one purchased asset is available	1. Navigate to the Purchase tab. 2. Click the "View" button for a purchased asset.	A popup appears displaying detailed asset information (e.g., Asset Type, Category, Supplier Name, Bill Photo). The "Close" button closes the popup.			
UAT_T C_FT_ 006	Return Assets Search	Verify that the user can search for return assets by item name	Return tab is active, return assets exist in the database	1. Navigate to the Return tab. 2. Enter a search term (e.g., "Chair") in the search input. 3. Wait for 300ms (debounce delay).	Only return assets matching the search term (case-insensitive) are displayed in card format. If no matches, a message like "No items found matching 'Chair'" is shown.			
UAT_T C_FT_ 007	Change Return Asset Conditions	Verify that the user can change the condition of a return asset	Return tab is active, at least one return asset is available	1. Navigate to the Return tab. 2. Select a condition (e.g., "To Be Serviced") from the dropdown for an asset. 3. Confirm the change in the alert.	A success message (via SweetAlert) is displayed: "Condition changed to To Be Serviced. Entry staff notified." The condition is			

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					updated in the UI.			
UAT_T C_FT_ 008	Approve Return Asset	Verify that the user can approve a return asset	Return tab is active, at least one return asset is available	1. Navigate to the Return tab. 2. Select a condition (e.g., "Good") for an asset. 3. Click the "Approve" button.	A success message (via SweetAlert) is displayed: "The return has been approved as Good (Added to Stock)." The asset is removed from the list.			
UAT_T C_FT_ 009	Reject Return Asset	Verify that the user can reject a return asset with a remark	Return tab is active, at least one return asset is available	1. Navigate to the Return tab. 2. Click the "Reject" button for an asset. 3. Enter a remark (e.g., "Incorrect receipt"). 4. Click "Submit".	A success message (via SweetAlert) is displayed: "The return has been rejected and returned to the original location." The asset is removed from the list.			
UAT_T C_FT_ 010	Exchange Assets Approval	Verify that the user can approve an exchange asset	Exchange tab is active, at least one exchange asset is available	1. Navigate to the Exchange tab. 2. Click the "Yes" (Approve) button for an exchange asset	A success message (via SweetAlert) is displayed: "The exchange has been approved and quantity added to stock." The asset is removed from the table.			
UAT_T C_FT_ 011	Reject Exchange Asset	Verify that the user can reject an exchange asset	Exchange tab is active, at least one exchange asset is available	1. Navigate to the Exchange tab. 2. Click the "No" (Reject) button for an exchange asset.	A success message (via SweetAlert) is displayed: "The exchange has			

					been rejected and moved to disposal." The asset is removed from the table			
UAT_T C_FT_ 012	Service Assets Approval	Verify that the user can approve a service asset	Service tab is active, at least one service asset is available	1. Navigate to the Service tab. 2. Click the "Approve" button for a service asset.	A success message (via SweetAlert) is displayed: "The service has been approved and moved to Serviced Assets." The asset is removed from the table			
UAT_T C_FT_ 013	Reject Service Asset	Verify that the user can reject a service asset with a remark	Service tab is active, at least one service asset is available	1. Navigate to the Service tab. 2. Click the "Reject" button for a service asset. 3. Enter a remark (e.g., "Invalid service date"). 4. Click "Submit".	A success message (via SweetAlert) is displayed: "The service has been rejected and moved back to Returned." The asset is removed from the table.			
UAT_T C_FT_ 014	Disposal Assets	Verify that the user can dispose of an asset	Disposal tab is active, at least one disposal asset is available	1. Navigate to the Disposal tab. 2. Click the "Dispose" button for a disposal asset.	A success message (via SweetAlert) is displayed: "The asset has been moved to Disposed Assets." The asset is removed from the table.			
UAT_T C_FT_ 015	Cancel Disposal	Verify that the user can cancel a	Disposal tab is active, at least one disposal	1. Navigate to the Disposal tab.	A success message (via SweetAlert) is			

		disposal with a remark	asset is available	2. Click the "Cancel" button for a disposal asset. 3. Enter a remark	displayed: "The disposal has been cancelled and returned to Returned Permanent." The asset is removed from the table			
UAT_T C_FT_ 016	Issue Assets Approval	Verify that the user can approve an issued asset	Issue tab is active, at least one issued asset is available	1. Navigate to the Issue tab. 2. Click the "Approve" button for an issued asset.	A success message (via SweetAlert) is displayed: "The issue has been approved and moved to Issued Assets." The asset is removed from the table.			
UAT_T C_FT_ 017	Reject Issue Asset	Verify that the user can reject an issued asset with a remark	Issue tab is active, at least one issued asset is available	1. Navigate to the Issue tab. 2. Click the "Reject" button for an issued asset. 3. Enter a remark (e.g., "Invalid recipient"). 4. Click "Submit".	A success message (via SweetAlert) is displayed: "The issue has been rejected." The asset is removed from the table			
UAT_T C_FT_ 018	Asset Updation Approval	Verify that the user can approve an asset update	Asset Updation tab is active, at least one pending update is available	1. Navigate to the Asset Updation tab. 2. Click the "Approve" button for an update.	A success message (via SweetAlert) is displayed: "The update has been approved and applied." The update is removed from the table.			

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UAT_T C_FT_ 019	Reject Asset Update	Verify that the user can reject an asset update with a remark	Asset Updation tab is active, at least one pending update is available	1. Navigate to the Asset Updation tab. 2. Click the "Reject" button for an update. 3. Enter a remark (e.g., "Incorrect update data"). 4. Click "Submit".	A success message (via SweetAlert) is displayed: "The update has been rejected." The update is removed from the table.			
UAT_T C_FT_ 020	Building Upgradation Approval	Verify that the user can approve a building upgrade	Building Upgradation tab is active, at least one building upgrade is available	1. Navigate to the Building Upgradation tab. 2. Click the "Approve" button for a building upgrade.	A success message (via SweetAlert) is displayed: "The building upgrade has been approved and added to the building record." The upgrade is removed from the table.			
UAT_T C_FT_ 021	Reject Building Upgrade	Verify that the user can reject a building upgrade with a remark	Building Upgradation tab is active, at least one building upgrade is available	1. Navigate to the Building Upgradation tab. 2. Click the "Reject" button for a building upgrade. 3. Enter a remark (e.g., "Invalid estimate"). 4. Click "Submit".	A success message (via SweetAlert) is displayed: "The building upgrade has been rejected." The upgrade is removed from the table.			
UAT_T C_FT_ 022	Building Maintenance Approval	Verify that the user can approve a building maintenanc e entry	Building Maintenance tab is active, at least one maintenance entry is available	1. Navigate to the Building Maintenance tab. 2. Click the "Approve" button for a maintenance entry.	success message (via SweetAlert) is displayed: "The building maintenance has been approved and saved." The entry is removed from the table.			

UAT_T C_FT_ 023	Reject Building Maintenance	Verify that the user can reject a building maintenance entry with a remark	Building Maintenance tab is active, at least one maintenance entry is available	1. Navigate to the Building Maintenance tab. 2. Click the "Reject" button for a maintenance entry. 3. Enter a remark (e.g., "Incomplete description"). 4. Click "Submit".	A success message (via SweetAlert) is displayed: "The maintenance has been rejected." The entry is removed from the table.			
UAT_T C_FT_ 024	View Building Maintenance Details	Verify that the user can view details of a building maintenance entry	Building Maintenance tab is active, at least one maintenance entry is available	1. Navigate to the Building Maintenance tab. 2. Click the "View" button for a maintenance entry.	A popup appears displaying detailed maintenance information (e.g., Sub Category, Building No, Year, Cost). The "Close" button closes the popup.			
Asset Issue(Store Keeper)								
UAT_T C_FT_ 001	Tab Navigation	Verify that the user can switch between Issue and Acknowledge tabs	User is logged in, Asset Issue page is loaded	1. Click on the "Issue" tab. 2. Click on the "Acknowledge" tab. 3. Click back on the "Issue" tab.	The active tab updates correctly, and the corresponding content (Issue form or Acknowledge cards) is displayed without errors. The active tab is highlighted with blue styling.			
UAT_T C_FT_ 002	Username (Create Form)	verify that the user can select an asset type	User is on the Issue tab	1. Select "Permanent" from the Asset Type dropdown. 2. Select "Consumable" from the Asset Type dropdown.	The selected asset type is reflected in the dropdown, and the Asset Category dropdown updates with the			

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					corresponding options (e.g., Furniture for Permanent, Stationery for Consumable).			
UAT_T C_FT_ 003	Asset Category Selection	Verify that the user can select an asset category	Asset Type is selected (e.g., Permanent)	1. Select "Ex:Furniture" from the Asset Category dropdown.	The selected category is reflected, and the Item dropdown is populated with relevant store items for the selected category.			
UAT_T C_FT_ 004	Item Selection	Verify that the user can select an item	Asset Type and Category are selected, store items are available	1. Select an item (e.g., "Chair - Wooden - Office Chair") from the Item dropdown.	The selected item is reflected, and the "In Stock" field displays the available quantity. For Permanent assets, available item IDs are displayed.			
UAT_T C_FT_ 005	Add Issue Item	Verify that the user can add a new issue item	Issue tab is active	1. Click the "Add Issue" button.	A new issue item section is added to the form with fields for Issued To, Quantity, and (if applicable) Name, Designation, Location, and Item IDs.			
UAT_T C_FT_ 006	Issue Item Details	Verify that the user can fill issue item details	Issue tab is active, at least one issue item is added	1. Select "faculty_chamber" from the Issued To dropdown. 2. Enter "5" in the Quantity field.	The issue item fields are updated correctly. For Permanent			

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				3. For Permanent assets, select 5 Item IDs. 4. For Issued To "name", enter Name (e.g., "John Doe"), Designation (e.g., "Professor"), and Location (e.g., "Room 101").	assets, the selected Item IDs are limited to the entered quantity.			
UAT_T C_FT_ 007	Select All Item IDs	Verify that the user can select all available Item IDs for a Permanent asset	Issue tab is active, Permanent asset selected, issue item added, Item IDs available	1. Add an issue item with Quantity set to 3. 2. Check the "Select All" checkbox for Item IDs.	All available Item IDs (up to the quantity, e.g., 3) are selected, excluding IDs used in other issue items.			
UAT_T C_FT_ 008	Submit Issue	Verify that the user can submit an issue and generate PDF receipts	Issue tab is active, valid issue details filled (Asset Type, Category, Item, at least one issue item with Issued To and Quantity)	1. Select Asset Type, Category, and Item. 2. Add an issue item with Issued To (e.g., "library"), Quantity (e.g., 2), and (for Permanent) select 2 Item IDs. 3. Click the "Submit" button.	A success message (via SweetAlert) is displayed: "All receipts generated and downloaded successfully!" PDF receipts are downloaded with correct details (Asset Type, Category, Item Name, Issued To, Quantity, etc.). The form resets, and the page reloads.			
UAT_T C_FT_ 009	Submit Issue Validation	Verify validation for incomplete issue submission	Issue tab is active	1. Leave Item unselected and click "Submit". 2. Add an issue item but leave Issued To empty and click "Submit". 3. For Permanent assets, select fewer Item IDs than the quantity and click "Submit".	Appropriate warning messages (via SweetAlert) are displayed: - "Please select an item and add at least one issue!"			

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				4. Enter a total quantity exceeding the in-stock amount and click "Submit".				
UAT_T C_FT_ 010	Edit Rejected Issue	Verify that the user can edit a rejected issue	User navigates to Asset Issue page with a rejectedId query parameter	1. Observe the page after loading with a rejectedId. 2. Update the issue details (e.g., change Quantity or Issued To). 3. Click "Submit".	A notification (via SweetAlert) is displayed: "Editing Rejected Issue." The form is pre-filled with the rejected issue's details. After submission, a success message is shown, the rejected issue is deleted from the backend, and the form resets.			
UAT_T C_FT_ 011	Acknowledg e Tab Display	Verify that the Acknowled ge tab displays temporary issues	Acknowledge tab is active, temporary issues exist in the database	1. Navigate to the Acknowledge tab. 2. Observe the displayed cards.	Cards are displayed for each temporary issue, showing details (Item Name, Asset Type, Category, Sub Category, Description, Issued To, Location, Quantity, Item IDs) and a "Download Receipt" link. The status is shown as "Pending" or "Acknowledged"			

UAT_TC_FT_012	Download Receipt	Verify that the user can download the receipt PDF for a temporary issue	Acknowledge tab is active, at least one temporary issue is available	1. Navigate to the Acknowledge tab. 2. Click the "Download Receipt" link for a temporary issue.	The PDF receipt is downloaded, containing correct issue details (Asset Type, Category, Item Name, Issued To, Quantity, etc.).			
UAT_TC_FT_013	Upload Signed Receipt	Verify that the user can upload a signed receipt for a temporary issue	Acknowledge tab is active, at least one temporary issue with "Pending" status is available	1. Navigate to the Acknowledge tab. 2. Select a PDF file (e.g., signed_receipt.pdf) using the file input for a temporary issue. 3. Click the "Done" button.	The file is uploaded, and a success message (via SweetAlert) is displayed: "Receipt acknowledged!" The issue's status changes to "Acknowledged," and a "View Signed Receipt" .			
UAT_TC_FT_014	Upload Invalid File	Verify validation for uploading an invalid file type	Acknowledge tab is active, at least one temporary issue with "Pending" status is available	1. Navigate to the Acknowledge tab. 2. Select an invalid file (e.g., .txt file) using the file input. 3. Observe the result.	An error message (via SweetAlert) is displayed: "Only PDF, JPEG, and PNG files are allowed!" The file input is cleared, and no file is selected.			
UAT_TC_FT_015	Acknowledge Without File	Verify validation for acknowledging without uploading a file	Acknowledge tab is active, at least one temporary issue with "Pending" status is available	1. Navigate to the Acknowledge tab. 2. Click the "Done" button for a temporary issue without selecting a file.	An error message (via SweetAlert) is displayed: "Please upload a signed receipt first!" The issue remains in "Pending" status.			
UAT_TC_FT_015	View Signed Receipt	Verify that the user can view a	Acknowledge tab is active, at least one	1. Navigate to the Acknowledge tab.	The signed receipt (PDF, JPEG, or PNG)			

		signed receipt for an acknowledged issue	temporary issue with "Acknowledged" status is available	2. Click the "View Signed Receipt" link for an acknowledged issue.	opens in a new tab or is downloaded, depending on the browser settings.			

Asset Return(Store Keeper)								
UAT_T C_FT_ 001	Asset Type Selection	Verify that the user can select Permanent or Consumable asset type	User is logged in, Asset Return page is loaded	1. Select "Permanent" from the Asset Type dropdown. 2. Select "Consumable" from the Asset Type dropdown.	The Asset Type updates, and the Asset Category dropdown populates with the corresponding options (e.g., Furniture for Permanent, Stationery for Consumable).			
UAT_T C_FT_ 002	Asset Category Selection	Verify that the user can select an asset category	Asset Type is selected	1. Select an Asset Type (e.g., Permanent). 2. Select a category (e.g., Furniture) from the Asset Category dropdown.	The Asset Category updates, and the Item dropdown populates with relevant items based on the selected type and category.			
UAT_T C_FT_ 003	Item Selection	Verify that the user can select an item	Asset Type and Category are selected	1. Select an item (e.g., "Chair - Wooden - Office Chair") from the Item dropdown.	The selected item is displayed, and the Location dropdown populates with issued locations			

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					for the selected item.			
UAT_T C_FT_ 004	Location Selection	Verify that the user can select a location	Asset Type, Category, and Item are selected, issued locations exist	1. Select a location (e.g., "library") from the Location dropdown.	The selected location is displayed, the Issued Quantity field shows the quantity issued to that location, and (for Permanent assets) the Return IDs section populates with available Item IDs.			
UAT_T C_FT_ 005	Issued Quantity Display	Verify that the Issued Quantity is displayed correctly	Asset Type, Category, Item, and Location are selected	1. Select a location with issued assets. 2. Observe the Issued Quantity field.	The Issued Quantity field displays the correct number of items issued to the selected location (e.g., "5" for 5 chairs issued to the library).			
UAT_T C_FT_ 006	Return Quantity Input	Verify that the user can input a return quantity	Asset Type, Category, Item, and Location are selected	1. Enter "3" in the Return Quantity field.	The Return Quantity updates to Ex:3. For Permanent assets, the Return IDs selection is limited to 3 IDs.			

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UAT_T C_FT_ 007	Select Return IDs	Verify that the user can select Item IDs for a Permanent asset return	Asset Type is Permanent, Category, Item, and Location are selected, Return Quantity is set	1. Set Return Quantity to 2. 2. Check two Item IDs (e.g., "ID001", "ID002") in the Return IDs section.	The selected Item IDs are highlighted, and the count of selected IDs matches the Return Quantity (2). Additional IDs are disabled if the quantity is reached.			
UAT_T C_FT_ 008	Select All Return IDs	Verify that the user can select all available Item IDs for a Permanent asset	Asset Type is Permanent, Category, Item, and Location are selected, Return Quantity is set	1. Set Return Quantity to 3. 2. Check the "Select All" checkbox in the Return IDs section.	All available Item IDs (up to the Return Quantity, e.g., 3) are selected. If fewer IDs are available, only those are selected.			
UAT_T C_FT_ 009	Submit Return	Verify that the user can submit a return request	Asset Type, Category, Item, Location, and Return Quantity are set; for Permanent assets, correct number of Item IDs are selected	1. Select Asset Type (e.g., Permanent), Category (e.g., Furniture), Item (e.g., "Chair - Wooden - Office Chair"), and Location (e.g., "library"). 2. Set Return Quantity to 2. 3. For Permanent assets, select 2 Item IDs. 4. Click the "Submit" button.	A success message (via SweetAlert) is displayed: "Items returned successfully!" The form resets, and the backend is updated with the return details.			

UAT_TC_FT_010	Submit Return Validation	Verify validation for incomplete or invalid return submission	Asset Return page is loaded	1. Leave Item unselected and click "Submit". 2. Select Item and Location but set Return Quantity to 0 and click "Submit". 3. Set Return Quantity higher than Issued Quantity and click "Submit". 4. For Permanent assets, select fewer Item IDs than Return Quantity and click "Submit".	Appropriate warning messages (via SweetAlert) are displayed: - "Please fill all fields and ensure return quantity is greater than 0!" - "Return quantity cannot exceed issued quantity!" - "Selected IDs must match return quantity for Permanent assets!"			
UAT_TC_FT_011	Edit Rejected Return	Verify that the user can edit a rejected return	User navigates to Asset Return page with a rejectedId query parameter	1. Observe the page after loading with a rejectedId. 2. Update the return details (e.g., change Return Quantity or select different Item IDs). 3. Click "Submit".	A notification (via SweetAlert) is displayed: "Editing Rejected Return." The form is pre-filled with the rejected return's details (Asset Type, Category, Item, Location, Return Quantity, Return IDs). After submission, a success message is shown, the rejected return is deleted from the			

					backend, and the form resets.			

		Asset view(Storekeeper/Asset manager)						
UAT_0 01	Type Navigation	Verify that the user can switch between Permanent, Consumable, and Condition Change tabs	User is logged in, Asset Updation page is loaded	1. Click on the "Permanent Assets" tab 2. Click on the "Consumable Assets" tab 3. Click on the "Condition Change" tab	The active tab updates correctly, and the corresponding content (Permanent assets, Consumable assets, or Condition Change) is displayed. The UI reflects the active tab with highlighted styling			
UAT_0 02	Asset Card Display	Verify that asset cards are displayed for Permanent and Consumable tabs	Permanent and Consumable tabs are accessible, asset exist in the database	1. Navigate to the "Permanent Assets" tab 2. Navigate to the "Consumable Assets" tab	Asset cards are displayed with details (Item Name, Category, Sub Category, Purchase Date, Supplier, Bill No, Quantity).			

		Asset Updation(Asset Manager)						
UAT_0 01	Search Returned Assets	Verify that the search functionality filters returned assets by item name	User is logged in, Condition Change tab is active, returned assets are available	1. Navigate to the Condition Change tab. 2. Enter "Table" in the search input. 3. Wait for 300ms. 4. Observe the asset cards.	Only returned assets with "Table" in their item name should be displayed, sorted alphabetically.			

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UAT_0 02	Condition Change	Verify that the condition of a permanent or consumable asset can be changed	User is logged in, Condition Change tab is active, permanent or consumable assets are displayed	1. Navigate to the Condition Change tab. 2. Select "To Be Serviced" from the condition dropdown for a permanent asset. 3. Confirm the action in the alert. 4. Observe the asset card and alert.	A confirmation alert should appear, and upon confirmation, a success alert should show ("Condition changed to To Be Serviced"). The asset card should reflect the new condition.			

ASSET UPDATION (STORE KEEPER)								
UAT_ 001	Tab Navigatio n	Verify that the user can switch between Permanent, Consumable.	User is logged in, Asset Updation page is loaded	1. Click on the "Permanent Assets" tab. 2. Click on the "Consumable Assets" tab.	The active tab updates correctly, and the corresponding content (Permanent assets, Consumable assets, or Returned assets) is displayed. The UI reflects the active tab with highlighted styling.			

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UAT_002	Asset Card Display	Verify that asset cards are displayed for Permanent and Consumable tabs	Permanent and Consumable tabs are accessible, assets exist in the database	1. Navigate to the "Permanent Assets" tab. 2. Navigate to the "Consumable Assets" tab.	Asset cards are displayed with details (Item Name, Category, Sub Category, Purchase Date, Supplier, Bill No, Item IDs/Quantity). Each card includes "View Details" and "Edit" buttons (or "Update Under Approval" badge if pending).			
UAT_003	Search Assets	Verify that the user can search assets by item name	Permanent or Consumable tab is active, assets are available	1. Navigate to the "Permanent Assets" tab. 2. Enter "Chair" in the search input. 3. Navigate to the "Consumable Assets" tab. 4. Enter "Pen" in the search input.	Only assets matching the search term (e.g., "Chair" or "Pen") are displayed. If no matches, a message like "No permanent assets found matching 'Chair'" is shown. Search is case-insensitive and debounced for performance.			

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UAT_004	Sort Assets	Verify that assets are sorted by item name	Permanent or Consumable tab is active, multiple assets are available	1. Navigate to the "Permanent Assets" tab. 2. Observe the order of asset cards. 3. Navigate to the "Consumable Assets" tab. 4. Observe the order of asset cards.	Asset cards are sorted alphabetically by item name (e.g., "Chair" before "Table"). Sorting is consistent across searches.			
UAT_005	View Asset Details	Verify that the user can view detailed asset information in a popup	Permanent or Consumable tab is active, assets are available	1. Navigate to the "Permanent Assets" tab. 2. Click "View Details" on an asset card (e.g., "Chair").	A popup opens displaying detailed asset information (Asset Type, Category, Entry Date, Purchase Date, Source, Mode of Purchase, Supplier, Bill No, Received By, Items with Name, Sub Category, Description, Quantity, Prices, AMC/Warranty details, and photos). A "Close" button is available.			

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UAT_006	Edit Asset	Verify that the user can enter edit mode for an asset	Permanent or Consumable tab is active, asset has no pending update	1. Navigate to the "Permanent Assets" tab. 2. Click "Edit" on an asset card (e.g., "Chair").	The popup switches to edit mode, displaying input fields for General Information (Asset Category, Entry Date, Purchase Date, Source, Mode of Purchase, Supplier Name/Address, Bill No, Received By, Bill Photo) and Item details (Name, Sub Category, Description, Quantity, Unit Price, Total Price, AMC/Warranty info, photos).			
UAT_007	Update Asset Fields	Verify that the user can update asset fields	Edit mode is active for an asset	1. In edit mode, change the Supplier Name to "New Supplier". 2. Update an item's Quantity Received to "10". 3. Change the AMC From Date to "2025-01-01".	The input fields update correctly with the new values (e.g., Supplier Name: "New Supplier", Quantity Received: "10", AMC From Date: "2025-01-01").			

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UAT_008	File Upload	Verify that the user can upload photos (Bill, Item, Warranty, AMC)	Edit mode is active for an asset	1. In edit mode, upload a JPEG file for the Bill Photo. 2. Upload a PNG file for an item's Item Photo. 3. Upload a PDF file for an item's Warranty Photo.	The files are uploaded successfully, and image previews are displayed for each uploaded file (Bill Photo, Item Photo, Warranty Photo). A "View Full Image" link is available for each preview.			
UAT_009	Save Changes	Verify that the user can submit asset changes for approval	Edit mode is active, asset fields are updated	1. In edit mode, update the Supplier Name and an item's Quantity Received. 2. Click "Save Changes".	A success message (via SweetAlert) is displayed: "Asset update submitted for approval." The popup closes, and the asset card shows an "Update Under Approval" badge. The backend is updated with the pending update.			
UAT_010	Cancel Edit	Verify that the user can cancel editing an asset	Edit mode is active	1. In edit mode, make changes to fields (e.g., Supplier Name). 2. Click "Cancel".	The popup closes, and no changes are saved. The asset card remains unchanged, and no pending update is created.			

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UAT_011	Pending Update Badge	Verify that assets with pending updates display a badge	An asset has a pending update in the backend	1. Navigate to the "Permanent Assets" tab. 2. Identify an asset with a pending update.	The asset card displays an "Update Under Approval" badge instead of an "Edit" button.			
UAT_012	Edit Rejected Update	Verify that the user can edit a rejected update	User navigates to Asset Updation page with rejectedId and assetType query parameters (e.g., /storekeeperassetupdation?username=Guest&rejectedId=123&assetType=Permanent)	1. Observe the page after loading with a rejectedId. 2. Update the Supplier Name in the edit popup. 3. Click "Save Changes".	A notification (via SweetAlert) is displayed: "Editing Rejected Update." The correct tab (Permanent/Consumable) is active, and the popup is pre-filled with the rejected update's data. After submission, a success message is shown, the rejected update is deleted from the backend, and the popup closes.			
UAT_016	Search Returned Assets	Verify that the user can search returned assets by item name	Condition Change tab is active, returned assets are available	1. Navigate to the "Condition Change" tab. 2. Enter "Chair" in the search input.	Only returned assets matching the search term (e.g., "Chair") are displayed. If no matches, a message like "No returned assets found matching 'Chair'" is shown. Search			

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					is case-insensitive and debounced.		
UAT_ 017	View Returned Asset Details	Verify that the user can view details of a returned asset	Condition Change tab is active, a returned asset is available	1. Navigate to the "Condition Change" tab. 2. Click "View Details" on a returned asset card (e.g., "Chair").	A popup opens displaying detailed information (Asset Type, Category, Item Name, Sub Category, Description, Location, Item ID/Quantity, Status, Remark, Receipt/Signed PDF links). A "Close" button is available.		
UAT_ 018	Sidebar Navigatio n	Verify that the sidebar navigation links work correctly	User is logged in, Asset Updation page is loaded	1. Click the "Home" link in the sidebar. 2. Click the "Asset Store" link. 3. Click the "Asset Issue" link. 4. Click the "Asset Return" link. 5. Click the "Asset View" link. 6. Click the "Logout" link.	Each link navigates to the correct page: - Home: /storekeeperdas hboard - Asset Store: /assetstore - Asset Issue: /assetissue - Asset Return: /assetreturn - Asset View: /viewasset - Logout: /. The username is preserved in the URL.		

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UAT_019	Username Display	Verify that the username is displayed correctly in the navigation bar	User is logged in, Asset Updation page is loaded	1. Observe the top-right corner of the navigation bar.	The username (passed via query parameter or "Guest") is displayed next to a user icon.			
UAT_020	Image Preview and Link	Verify that uploaded image previews and links work correctly	Edit mode is active, an image (e.g., Bill Photo) is uploaded	1. In edit mode, upload a JPEG file for the Bill Photo. 2. Observe the preview. 3. Click the "View Full Image" link.	The uploaded image is displayed as a preview (300x150px, contained fit). Clicking "View Full Image" opens the full image in a new tab.			

HEAD OF OFFICE(HOO) ASSET DISPOSAL APPROVAL								
Test Case ID	**Test Field Name**	**Test Scenario**	**Precondition s**	**Test Steps**	**Expected Result**	**Actual Result s**	**Stat us**	**Commen ts**
UAT_00_1	Tab Navigatio n	Verify that the user can navigate to Asset Approval page	User is logged in	1. Click on the "Asset Approval" tab from the sidebar	The active tab updates correctly, and the Asset Approval page is displayed with highlighted styling			

UAT_00_2	Data Display	Verify that waiting assets are displayed in the table	Waiting assets data exists	1. Navigate to Asset Approval page2. Check table	Table displays waiting assets with columns for Asset Type, Asset Category, Item Name, Returned From, Details, and Action			
UAT_00_3	View Details	Verify that asset details popup displays correctly	Waiting assets data exists	1. Click "View" button on an asset row	Popup opens with detailed asset information including links to Receipt PDF and Signed Receipt			
UAT_00_4	Approve Action	Verify that an asset can be approved successfully	Waiting assets data exists	1. Click "Approve" button on an asset row2. Wait for response	Asset is removed from table with success popup "Asset approved by HOO"			
UAT_00_5	Reject Action	Verify that an asset can be rejected with remarks	Waiting assets data exists	1. Enter rejection remarks2. Click "Reject" button. Wait for response	Asset is removed from table with info popup "Asset rejection notified to entry staff"			
UAT_00_6	Error Handling	Verify that errors are handled during approval	Network error or server failure	1. Trigger an approval with network error2. Check response	Error popup appears with "Failed to approve asset" message			

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UAT_00_7	Error Handling	Verify that errors are handled during rejection	Network error or server failure	1. Trigger a rejection with network error2. Check response	Error popup appears with "Failed to reject asset" message			
UAT_00_8	No Data Display	Verify that no data message is displayed	No waiting assets data exists	1. Navigate to Asset Approval page2. Check table	Table displays "No assets awaiting approval" message across all columns			
FACULTY ENTRY STAFF								
UAT_TC_FE_001	Faculty Type	Validate Faculty Type selection	Page is loaded	1. Select "Internal" from the Faculty Type dropdown 2. Select "External" from the Faculty Type dropdown 3. Select "Contract" from the Faculty Type dropdown	Selected faculty type is displayed in the input field			
UAT_TC_FE_002	Name	Validate Name field	Page is loaded	1. Enter a valid name (e.g., "S Akash Aravind")	Name is accepted and displayed in the input field			
UAT_TC_FE_003	Cadre	Validate Cadre field	Page is loaded	1. Enter a valid cadre (e.g., "Professor")	Cadre is accepted and displayed in the input field			
UAT_TC_FE_004	Year of Allotment	Validate Year of Allotment field	Page is loaded	1. Enter a valid year (e.g., "2023")	Year is accepted and displayed in the input field			

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UAT_TC_FE_005	Mobile Number	Validate Mobile Number input	Page is loaded	. Enter a valid 10-digit mobile number (e.g., "0701069599")	Mobile number is accepted and displayed in the input field			
UAT_TC_FE_006	Communication Address	Validate Communication Address field	Page is loaded	1. Enter a valid address (e.g., "P.S.G College of Technology Avinashi road Coimbatore")	Address is accepted and displayed in the input field			
UAT_TC_FE_007	Permanent Address	Validate Permanent Address field	Page is loaded	1. Enter a valid address (e.g., "P.S.G College of Technology Avinashi road Coimbatore")	Address is accepted and displayed in the input field			
UAT_TC_FE_008	Email Address	Validate Email Address field	Page is loaded	1. Enter a valid email (e.g., "22202@pstech.ac.in")	Email is accepted and displayed in the input field			
UAT_TC_FE_009	Photograph	Validate Photograph upload	Page is loaded	1. Upload a file less than 50KB 2. Upload a file greater than 50KB	File less than 50KB is accepted; file greater than 50KB shows an error			
UAT_TC_FE_010	Status	Validate Status selection	Page is loaded	1. Select a status from the dropdown	Selected status is displayed in the input field			
UAT_TC_FE_011	Name of the Institution	Validate Institution field	Page is loaded	1. Enter a valid institution name (e.g., "College/University")	Institution name is accepted and displayed in the input field			

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UAT_TC_FE_012	Major Domain 1	Validate Major Domain selection	Page is loaded	1. Select a major domain from the dropdown	Selected major domain is displayed in the input field			
UAT_TC_FE_013	Areas of Expertise	Validate Areas of Expertise field	Page is loaded	1. Enter areas of expertise (e.g., "Machine Learning")	Areas of expertise are accepted and displayed in the input field			
UAT_TC_FE_014	Awards Received	Validate Awards Received field	Page is loaded	1. Enter awards received (e.g., "Best Teacher 2022")	Awards are accepted and displayed in the input field			
UAT_TC_FE_015	Submit	Validate successful form submission	All required fields filled with valid inputs	1. Fill all required fields 2. Click Save	User is redirected to the dashboard with a success message			
UAT_TC_FE_016	Submit	Validate submission with missing required fields	Page is loaded	1. Leave required fields (e.g., Name, Mobile Number) blank 2. Click Save	Error message is displayed for missing required fields			

PRINCIPAL FACULTY UPDATION(PRINCIPAL)								
Test Case ID	Field Name	Test Scenario	Preconditions	Test Steps	Expected Result	Actual Result	Status	Comments

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UAT_PFU_001	Tab Navigation	Verify that the user can switch between tabs	User is logged in, Faculty Updation page is loaded	1. Click on the "Faculty Updation" tab in the sidebar	The active tab updates correctly, and the corresponding content is displayed. The UI reflects the active tab with highlighted styling.			
UAT_PFU_002	Faculty Filter	Verify that filters apply correctly to display faculty data	User is logged in, Faculty Updation page is loaded	1. Enter a valid name in the "Name" filter 2. Click outside the input or wait for auto-apply 3. Enter a valid email in the "Email" filter 4. Select a faculty type from "Faculty Type" dropdown	Filtered faculty data is displayed in the table matching the filter criteria. Total No of Faculties updates accordingly.			
UAT_PFU_003	Clear Filter	Verify that clearing filters resets the faculty data	User is logged in, filters are applied, Faculty Updation page is loaded	1. Click the "Clear Filter" button	All filters are cleared, and the full list of faculty data is displayed. Total No of Faculties reflects the total count.			
UAT_PFU_004	View Details	Verify that faculty details are displayed in a popup	User is logged in, faculty data is loaded in the table	1. Click the "View" button for a faculty record	A popup displays detailed faculty information including name, photograph, faculty type, etc.			

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UAT_PFU_005	Update Details	Verify that update navigation works	User is logged in, faculty data is loaded in the table	1. Click the "Update" button for a faculty record	User is navigated to the update faculty entry page with the selected faculty data pre-filled.			
UAT_PFU_006	Add Conduct	Verify that add conduct navigation works	User is logged in, faculty data is loaded in the table	1. Click the "Add Conduct" button for a faculty record	User is navigated to the add conduct page for the selected faculty.			
UAT_PFU_007	Notify Faculty	Verify that faculty notification works	User is logged in, faculty data is loaded in the table	1. Click the "Notify" button for a faculty record 2. Enter remarks in the notification popup 3. Click "Submit"	A notification popup appears, and after submission, the status updates to "Notified". The faculty is removed from the table.			
UAT_PFU_008	Delete Faculty	Verify that faculty deletion works	User is logged in, faculty data is loaded in the table	1. Click the "Delete" button for a faculty record 2. Confirm deletion in the confirmation popup	A confirmation popup appears, and after confirmation, the status updates to "Deleted". The faculty is removed from the table.			
UAT_PFU_009	Cancel Delete	Verify that cancel delete works	User is logged in, faculty data is loaded in the table, delete confirmation is triggered	1. Click the "Delete" button for a faculty record 2. Click "Cancel" in the confirmation popup	The confirmation popup closes, and the faculty record remains in the table.			

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| UAT_PFU_010 | No Matching Records | Verify message for no matching records | User is logged in, Faculty Updation page is loaded | 1. Apply filters with no matching data (e.g., invalid name) | A message "No matching records found" is displayed in red. | | | |

ADD CONCUCT(PRINCIPAL)								
Test Case ID	**Test Field Name**	**Test Scenario**	**Preconditions**	**Test Steps**	**Expected Result**	**Actual Results**	**Status**	**Comments**
UAT_00_1	Tab Navigation	Verify that the user can navigate to Faculty Updation page	User is logged in	1. Click on the "Faculty Updation" tab from the sidebar	The active tab updates correctly, and the Faculty Updation page is displayed with highlighted styling			

UAT_00_2	Form Display	Verify that the faculty conduct form is displayed with prefilled data	Faculty data exists in the database, user is on Add Conduct page	1. Navigate to the Add Conduct page for a specific facultyId 2. Verify form fields	Form displays faculty name (disabled), conduct dropdown, and remarks input with prefilled data from the database			
UAT_00_3	Form Submission	Verify that the conduct can be updated successfully	User is on Add Conduct page with valid input	1. Select a conduct from dropdown 2. Enter remarks 3. Click Submit button	On successful submission, a success popup appears, and the page navigates back to Faculty Updation after 1.5 seconds			
UAT_00_4	Error Handling	Verify that errors are handled during form submission	User is on Add Conduct page with invalid or failed API call	1. Submit form with invalid data or trigger API failure 2. Check response	An error popup appears with appropriate message, and "Failed to Save" status is displayed			

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				HOO FACULTY UPDATION (HOO)				
Test Case ID	**Test Field Name**	**Test Scenario**	**Preconditions**	**Test Steps**	**Expected Result**	**Actual Results**	**Status**	**Comments**
UAT_00_1	Tab Navigation	Verify that the user can navigate to Faculty Updation page	User is logged in	1. Click on the "Faculty Updation" tab from the sidebar	The active tab updates correctly, and the Faculty Updation page is displayed with highlighted styling			

UAT_00_2	Filter Display	Verify that the filter form is displayed with all fields	User is on Faculty Updation page	1. Navigate to Faculty Updation page2. Check filter section	Filter form displays fields for Faculty Type, Name, Email, Year of Allotment, Status, Modules Handled, Major Domains, Minor Domains, Areas of Expertise, Institution, and Mobile Number			
UAT_00_3	Filter Apply	Verify that applying filters retrieves correct faculty data	Faculty data exists in the database	1. Enter filter criteria (e.g., Name: "John")2. Apply filter	Table displays filtered faculty data matching the criteria, total faculties updated, and no error message if data exists			

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UAT_00_4	Filter Clear	Verify that clearing filters resets the table	Filters are applied	1. Apply a filter2. Click "Clear Filter" button	All filter fields are cleared, table shows all faculty data, and total faculties reflects unfiltered count			
UAT_00_5	View Details	Verify that faculty details popup displays correctly	Faculty data exists in the table	1. Click "View" button on a faculty row	Popup opens with detailed faculty information including photograph and nested data			
UAT_00_6	Update Navigation	Verify that update navigation works	Faculty data exists in the table	1. Click "Update" button on a faculty row	User is navigated to the update page with prefilled faculty data			
UAT_00_7	Delete Confirmation	Verify that delete action prompts confirmation	Faculty data exists in the table	1. Click "Delete" button on a faculty row	A confirmation popup appears asking to confirm deletion			

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UAT_00_8	Delete Success	Verify that faculty is deleted successfully	Faculty data exists in the table	1. Confirm deletion in popup	Faculty is removed from table, success popup appears, and total faculties decreases			
UAT_00_9	Delete Failure	Verify that errors are handled during deletion	Faculty data exists in the table	1. Trigger a deletion failure (e.g., network error)2. Confirm deletion	Error popup appears with appropriate message, and "Failed to Delete" status is displayed			

PRINCIPAL FACULTY VIEW (PRINCIPAL)								
Test Case ID	Test Field Name	Test Scenario	Preconditions	Test Steps	Expected Result	Actual Results	Status	Comments

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UAT_00_1	Tab Navigation	Verify that the user can navigate to Faculty View page	User is logged in	1. Click on the "Faculty View" tab from the sidebar	The active tab updates correctly, and the Faculty View page is displayed with highlighted styling			
UAT_00_2	Filter Display	Verify that the filter form is displayed with all fields	User is on Faculty View page	1. Navigate to Faculty View page2. Check filter section	Filter form displays fields for Faculty Type, Name, Year of Allotment, Email, Status, Modules Handled, Major Domains, Minor Domains, Areas of Expertise, Institution, Mobile Number, and Domain Knowledge			
UAT_00_3	Filter Apply	Verify that applying filters retrieves correct faculty data	Faculty data exists in the database	1. Enter filter criteria (e.g., Name: "John")2. Apply filter (via state change)	Table displays filtered faculty data matching the criteria, and no error message if data exists			
UAT_00_4	Filter Clear	Verify that clearing filters resets the table	Filters are applied	1. Apply a filter2. Click "Clear Filter" button	All filter fields are cleared, table shows all faculty data, and message is cleared			

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UAT_00_5	View Details	Verify that faculty details popup displays correctly	Faculty data exists in the table	1. Click "View" button on a faculty row	Popup opens with detailed faculty information including photograph and nested data			
UAT_00_6	Error Handling	Verify that errors are handled when no data is found	User applies invalid or no filters	1. Apply filter with no matching data2. Check response	Message "No matching records found" is displayed, and table is empty			

UPDATE FACULTY ENTRY HOO(HOO)								
Test Case ID	**Test Field Name**	**Test Scenario**	**Preconditions**	**Test Steps**	**Expected Result**	**Act ual**	**Sta tus**	**Comment s**

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					Results		
UAT_00_1	Tab Navigation	Verify that the user can navigate to Faculty Updation page	User is logged in	1. Click on the "Faculty Updation" tab from the sidebar	The active tab updates correctly, and the Faculty Updation page is displayed with highlighted styling		
UAT_00_2	Form Display	Verify that the update form is displayed with prefilled data	Faculty data exists in the state	1. Navigate to UpdateFacultyEntryHoo page with faculty data2. Check form fields	Form displays prefilled data based on faculty type (Internal, External, or Contract) with appropriate fields		
UAT_00_3	Domain Expertise	Verify that domain expertise can be added and removed	User is on UpdateFacultyEntryHoo page	1. Click "Add Domain Expertise"2. Select Major and Minor Domains3. Click "Remove" on an entry	New domain expertise fields are added, selections are saved, and removal deletes the entry		

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UAT_00_4	Nested Fields	Verify that nested fields (e.g., Publications) can be added and removed	User is on UpdateFacultyEntryHoo page	1. Click "Add Publication"2. Fill publication details3. Click "Remove"	New publication fields are added with input options, and removal deletes the entry			
UAT_00_5	Form Submission	Verify that the faculty data can be updated successfully	Valid form data entered	1. Fill and submit the form2. Check response	On success, "Saved" status appears with success popup; on failure, "Failed to Save" with error popup			
UAT_00_6	Validation	Verify that form submission validates faculty type	Faculty type not selected	1. Submit form without selecting faculty type	Warning popup appears with "Please select a faculty type" message			
UAT_00_7	File Upload	Verify that photograph file can be uploaded	User uploads a valid image file	1. Upload an image file in the photograph field2. Submit form	Photograph is successfully uploaded and included in the form data			

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FACULTY VERIFY (FACULTY VERIFIER)

Test Case ID	Test Field Name	Test Scenario	Preconditions	Test Steps	Expected Result	Actual Results	Status	Comments
UAT_00_1	Tab Navigation	Verify that the user can navigate to Faculty Verify page	User is logged in	1. Click on the "Faculty Verify" tab from the sidebar	The active tab updates correctly, and the Faculty Verify page is displayed with highlighted styling			
UAT_00_2	Filter Display	Verify that the filter form is displayed with all fields	User is on Faculty Verify page	1. Navigate to Faculty Verify page2. Check filter section	Filter form displays fields for Faculty Type, Name, Year of Allotment, Email, Status, Modules Handled, Major Domains, Minor Domains, Areas of Expertise, Institution, Mobile Number, and Domain Knowledge			
UAT_00_3	Filter Apply	Verify that applying filters retrieves unverified faculty data	Unverified faculty data exists	1. Enter filter criteria (e.g., Name: "John")2. Apply filter (via state change)	Table displays unverified faculty data matching the criteria			

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UAT_00_4	Filter Clear	Verify that clearing filters resets the table	Filters are applied	1. Apply a filter2. Click "Clear Filter" button	All filter fields are cleared, table shows all unverified faculty data			
UAT_00_5	View Details	Verify that faculty details popup displays correctly	Unverified faculty data exists	1. Click "View" button on a faculty row	Popup opens with detailed faculty information including photograph			
UAT_00_6	Verify Action	Verify that faculty can be verified successfully	Unverified faculty data exists	1. Click "Verify" button on a faculty row2. Wait for response	"Verified" status appears with success popup, and faculty is removed from table			
UAT_00_7	Reject Action	Verify that faculty can be rejected with remarks	Unverified faculty data exists	1. Click "Reject" button2. Enter remarks3. Click "Submit"	Rejection popup closes, "Rejected" status appears with success popup, and faculty is removed from table			
UAT_00_8	Reject Validation	Verify that rejection requires remarks	Unverified faculty data exists	1. Click "Reject" button2. Click "Submit" without remarks	Warning popup appears with "Please provide rejection remarks" message			

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UAT_00_9	Error Handling	Verify that errors are handled during verification	Network error or server failure	1. Trigger a verification with network error2. Check response	Error popup appears with appropriate message (e.g., "Unable to connect to the server"), and "Failed to Verify" status is displayed			

HOO FACULTY APPROVAL (HOO)

Test Case ID	Test Field Name	Test Scenario	Preconditions	Test Steps	Expected Result	Actual Results	Status	Comments
UAT_00_1	Tab Navigation	Verify that the user can navigate to Faculty Approval page	User is logged in	1. Click on the "Faculty Approval" tab from the sidebar	The active tab updates correctly, and the Faculty Approval page is displayed with highlighted styling			
UAT_00_2	Data Display	Verify that faculty data is displayed in the table	Faculty data exists	1. Navigate to Faculty Approval page2. Check table	Table displays faculty data with columns for Name, Faculty Type, Year of Allotment, Mobile Number, Verified, View, and Action			

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UAT_00_3	View Details	Verify that faculty details popup displays correctly	Faculty data exists	1. Click "View" button on a faculty row	Popup opens with detailed faculty information including photograph			
UAT_00_4	Approve Action	Verify that faculty can be approved successfully	Verified faculty data exists	1. Click "Approve" button on a verified faculty row2. Wait for response	"Approved" status appears with success popup, and faculty is removed from table			
UAT_00_5	Approve Validation	Verify that approval requires verification	Unverified faculty data exists	1. Click "Approve" button on an unverified faculty row	Warning popup appears with "Faculty must be verified before approval" message			
UAT_00_6	Reject Action	Verify that faculty can be rejected with remarks	Verified faculty data exists	1. Click "Reject" button2. Enter remarks3. Click "Submit"	Rejection popup closes, "Rejected" status appears with success popup, and faculty is removed from table			
UAT_00_7	Reject Validation	Verify that rejection requires remarks	Verified faculty data exists	1. Click "Reject" button2. Click "Submit" without remarks	Warning popup appears with "Please provide rejection remarks" message			

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UAT_00_8	Reject Validation	Verify that rejection requires verification	Unverified faculty data exists	1. Click "Reject" button on an unverified faculty row2. Click "Submit"	Warning popup appears with "Faculty must be verified before rejection" message			
UAT_00_9	Error Handling	Verify that errors are handled during approval	Network error or server failure	1. Trigger an approval with network error2. Check response	Error popup appears with appropriate message (e.g., "Error approving faculty"), and "Failed to Approve" status is displayed			
VIEWER(Asset View)								
UAT-AV-001	Asset Type	Verify filtering by Asset Type in Purchase tab	User is logged in, Purchase tab is active	1. Navigate to Purchase tab 2. Select "Permanent" from Asset Type dropdown 3. Click Apply Filter	Table displays only Permanent asset records			
UAT-AV-002	Custom Asset Type	Verify custom asset type input in Purchase tab	User is logged in, Purchase tab is active	1. Navigate to Purchase tab 2. Select "Others" from Asset Type dropdown 3. Enter "CustomType" in custom asset type field 4. Click Apply Filter	Table displays records matching CustomType			

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UAT-AV-003	Asset Category	Verify filtering by Asset Category in Store/Issue tab	User is logged in, Store/Issue tab is active	1. Navigate to Store/Issue tab 2. Select "Furniture" from Asset Category dropdown 3. Click Apply Filter	Table displays only Furniture category records			
UAT-AV-004	Sub Category	Verify sub-category filtering in Service/Return tab	User is logged in, Service/Return tab is active, Asset Category selected	1. Navigate to Service/Return tab 2. Select "Permanent" Asset Type 3. Select "Building" Asset Category 4. Select "Vana Vigyan" Sub Category 5. Click Apply Filter	Table displays records for Vana Vigyan sub-category			
UAT-AV-005	Item Name	Verify item name search in Disposal tab	User is logged in, Disposal tab is active	1. Navigate to Disposal tab 2. Enter "Chair" in Item Name field 3. Click Apply Filter	Table displays records with Item Name containing "Chair"			
UAT-AV-006	Purchase Date	Verify date range filtering in Purchase tab	User is logged in, Purchase tab is active	1. Navigate to Purchase tab 2. Set Purchase Date From to "2023-01-01" 3. Set Purchase Date To to "2023-12-31" 4. Click Apply Filter	Table displays records purchased in 2023			

UAT-AV-007	Clear Filter	Verify clear filter functionality in Dead Stock tab	User is logged in, Dead Stock tab is active, filters applied	1. Navigate to Dead Stock tab 2. Apply any filter (e.g., Asset Type) 3. Click Clear Filter button	All filter fields are reset, table displays all records			
UAT-AV-008	Export to PDF	Verify PDF export in Purchase tab	User is logged in, Purchase tab is active, data available	1. Navigate to Purchase tab 2. Apply any filter 3. Click Export to PDF	PDF file is downloaded with filtered data and correct formatting			
UAT-AV-009	Export to Excel	Verify Excel export in Store/Issue tab	User is logged in, Store/Issue tab is active, data available	1. Navigate to Store/Issue tab 2. Apply any filter 3. Click Export to Excel	Excel file is downloaded with filtered data			
UAT-AV-010	View Details	Verify detailed view popup in Purchase tab	User is logged in, Purchase tab is active, data available	1. Navigate to Purchase tab 2. Apply filter to display records 3. Click View Details for a record	Popup displays detailed information for the selected record			
UAT-AV-011	Building Maintenance	Verify Building Maintenance records display in Service/Return tab	User is logged in, Service/Return tab is active, Building category selected	1. Navigate to Service/Return tab 2. Select "Building" Asset Category 3. Apply Filter	Building Maintenance records table is displayed below main table			

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UAT-AV-012	Method of Disposal	Verify Method of Disposal filter in Dead Stock tab	User is logged in, Dead Stock tab is active	1. Navigate to Dead Stock tab 2. Select "Sold" from Method of Disposal dropdown 3. Click Apply Filter	Table Display record with method of Disposal			
UAT-AV-013	Total Cost	Verify total cost calculation in Disposal tab	User is logged in, Disposal tab is active, data available	1. Navigate to Disposal tab 2. Apply filter to display records 3. Check Total Disposal Value	Total Disposal Value is displayed correctly based on filtered records			
VIEWER(Faculty View)								
UAT-FV-001	Faculty Type	Verify filtering by Faculty Type	User is logged in, FacultyView page is loaded	1. Navigate to FacultyView page 2. Select "Internal" from Faculty Type dropdown 3. Observe table data	Table displays only Internal faculty records			
UAT-FV-002	Name	Verify filtering by Name	User is logged in, FacultyView page is loaded	1. Navigate to FacultyView page 2. Enter "John Doe" in Name field 3. Observe table data	Table displays records with Name containing "John Doe"			

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UAT-FV-003	Year of Allotment	Verify filtering by Year of Allotmen	User is logged in, FacultyView page is loaded	1. Navigate to FacultyView page 2. Enter "2023" in Year of Allotment field 3. Observe table data	Table displays records with Year of Allotment as 2023			
UAT-FV-004	Email	Verify filtering by Email	User is logged in, FacultyView page is loaded	User is logged in, FacultyView page is loaded	Table displays records with Email containing "example@domain.com"			
UAT-FV-005	Status	Verify filtering by Status	User is logged in, FacultyView page is loaded	1. Navigate to FacultyView page 2. Select "Serving" from Status dropdown 3. Observe table dat	Table displays only Serving faculty records			
UAT-FV-006	Modules Handled	Verify filtering by Modules Handled	User is logged in, FacultyView page is loaded	1. Navigate to FacultyView page 2. Enter "Silviculture" in Modules Handled field 3. Observe table data	Table displays records with Modules Handled containing "Silviculture"			
UAT-FV-007	Major Domains	Verify filtering by Major Domains	User is logged in, FacultyView page is loaded	1. Navigate to FacultyView page 2. Select "Forest & Wildlife" from Major Domains dropdown 3. Observe table data	Table displays records with Major Domain as "Forest & Wildlife"			

UAT-FV-008	Minor Domains	Verify filtering by Minor Domains	User is logged in, FacultyView page is loaded, Major Domain selected	1. Navigate to FacultyView page 2. Select "Forest & Wildlife" from Major Domains dropdown 3. Select "Silviculture" from Minor Domains dropdown 4. Observe table data	1. Navigate to FacultyView page 2. Select "Forest & Wildlife" from Major Domains dropdown 3. Select "Silviculture" from Minor Domains dropdown 4. Observe table data			
UAT-FV-009	Area of Expertise	Verify filtering by Area of Expertise	User is logged in, FacultyView page is loaded	1. Navigate to FacultyView page 2. Enter "Wildlife Conservation" in Area of Expertise field 3. Observe table data	Table displays records with Area of Expertise containing "Wildlife Conservation"			
UAT-FV-010	Institution	Verify filtering by Institution	User is logged in, FacultyView page is loaded	1. Navigate to FacultyView page 2. Enter "CASFOS" in Institution field 3. Observe table data	Table displays records with Institution containing "CASFOS"			
UAT-FV-011	Mobile Number	Verify filtering by Mobile Number	User is logged in, FacultyView page is loaded	1. Navigate to FacultyView page 2. Enter "9876543210" in Mobile Number field 3. Observe table data	Table displays records with Mobile Number containing "9876543210"			

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UAT-FV-012	Domain Knowledge	Verify filtering by Domain Knowledge	User is logged in, FacultyView page is loaded	1. Navigate to FacultyView page 2. Enter "Environmental Laws" in Domain Knowledge field 3. Observe table data	Table displays records with Domain Knowledge containing "Environmental Laws"			
UAT-FV-013	Clear Filter	Verify clear filter functionality	User is logged in, FacultyView page is loaded, filters applied	1. Navigate to FacultyView page 2. Apply any filter (e.g., Faculty Type) 3. Click Clear Filter button	All filter fields are reset, table displays no records or default state			
UAT-FV-014	View Details	Verify detailed view popup	User is logged in, FacultyView page is loaded, data available	1. Navigate to FacultyView page 2. Apply filter to display records 3. Click View button for a record	Popup displays detailed information for the selected faculty			
UAT-FV_015	Photograph Display	Verify photograph display in table	User is logged in, FacultyView page is loaded, data with photograph available	1. Navigate to FacultyView page 2. Apply filter to display records 3. Observe Photograph column	Photographs are displayed correctly or "No Image" for records without photographs			

4.3 NON - FUNCTIONAL TESTING

Test Case ID	Requirement	Test Scenario	Preconditions	Test Steps	Expected Result	Actual Result	Status	Comments

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Performance								
UAT_T C_NFT _001	Response Time	Verify that key operations complete within 5 seconds	Production-like environment	1. Simulate a user logging in. 2. Measure response time for dashboard loading. 3. Simulate new data submission. 4. Measure response time for submission. 5. Repeat for 10 iterations and calculate average.	Average response time for login and complaint submission is ≤5 seconds			
UAT_T C_NFT _002	Data Submission Time	Verify that Data submission completes within 5 seconds	Production-like environment; test user account with valid data; multimedia files (image ≤5 MB, pdf≤5 MB) prepared	1. Log in as store Keeper. 2. Navigate to Asset Store. 3. Fill all fields with valid data, including 1 PDF or 1 Image. 4. Click Submit. 5. Measure time from click to success message. 6. Repeat 5 times.	Data submission completes in ≤5 seconds per attempt			
UAT_T C_NFT _003	Report Generation Time	Verify that PDF and CSV report generation completes within 15 seconds	Production-like environment; test data with 100 data; logged in as Viewer	1. Navigate toAsset view. 2. Apply filters (e.g., date range, department). 3. Click PDF Report button. 4. Measure time to generate PDF. 5. Click CSV Report button. 6. Measure time to generate CSV. 7. Repeat 3 times.	PDF and CSV reports generate in ≤15 seconds each			
UAT_T C_NFT _004	Daily Data Load	Verify that the system handles 50 new data's per day without performance degradation	Production-like environment; test data for 50	1. Simulate 50 new Asset Data submissions. 2. Measure response times for submissions. 3. Monitor CPU, memory, and database performance. 4. Check for errors or delays.	All 50 data entry are processed with response times ≤5 seconds; no system errors or crashes			
Scalability								
UAT_T C_NFT _005	Concurrent Users	Verify that the system supports 100 concurrent	Production-like environment; load testing tool (e.g., JMeter)	1. Simulate 100 concurrent users performing actions (e.g., 50 submitting of Asset Entry). 2. Measure response times for	Response times remain ≤3 seconds for key operations; no errors or crashes			

				key operations. 3. Monitor server CPU, memory, and database metrics. 4. Check for errors or timeouts.				
UAT_T C_NFT _006	Baseline Concurrent Users	Verify that the system supports 15 concurrent users as per SRS	Production-like environment; load testing tool configured for 15 users	1. Simulate 15 concurrent users 2. Measure response times for key operations. 3. Monitor system performance metrics. 4. Check for errors.	Response times remain ≤3 seconds; no performance degradation or errors			
Security								
UAT_T C_NFT _007	HTTPS/TL S	Verify that all communicati ons use HTTPS with TLS 1.3	Production-like environment; browser developer tools or SSL scanning tool (e.g., Qualys SSL Labs) available	1. Access the CDBMS login page. 2. Inspect network traffic to confirm HTTPS usage. 3. Verify TLS 1.3 protocol in browser or SSL tool. 4. Attempt to access via HTTP and confirm redirection to HTTPS.	All requests use HTTPS with TLS 1.3; HTTP requests redirect to HTTPS			
UAT_T C_NFT _008	JWT Authenticat ion	Verify that all API endpoints require valid JWT authentication	Production-like environment; API testing tool (e.g., Postman) configured; test user accounts	1. Attempt to access a protected API endpoint without a JWT token. 2. Log in to obtain a valid JWT token. 3. Access the endpoint with the valid token. 4. Use an expired/invalid token and attempt access.	Requests without JWT are rejected (401 Unauthorized); valid JWT grants access; expired/invalid tokens are rejected			
Reliability								
UAT_T C_NFT _009	System Uptime	Verify that the system achieves ≥99% uptime annually	Production-like environment; monitoring tool (e.g., UptimeRobot) configured for 1 week	1. Deploy CDBMS in test environment. 2. Monitor system availability for 7 days. 3. Simulate user actions periodically. 4. Record any downtime incidents. 5. Calculate uptime percentage.	Uptime is ≥99% (≤1.68 hours downtime in 7 days)			
Usability								

UAT_T C_NFT _010	Cross-Bro wser Compatibili ty	Verify that the system functions across specified browsers	Production-like environment; latest versions of Chrome (v116+), Firefox (v115+), Edge (v116+), Safari (v16+) installed	1. Access CDBMS on each browser. 2. Perform key actions: login, submit data, view data, generate report. 3. Check UI rendering, responsiveness, and functionality. 4. Verify toast notifications and error messages.	All functions work correctly; UI renders properly; toast notifications display in all browsers			
UAT_T C_NFT _016	Cross-Devi ce Compatibili ty	Verify that the system is responsive across desktop, tablet, and mobile devices	Production-like environment; test devices: Windows 11 desktop, iPad (iOS 16+), Android 13 phone	1. Access CDBMS on each device. 2. Perform key actions: login, submit data, view data etc. 3. Verify responsive design (e.g., layout adjusts to screen size). 4. Check touch interactions on tablet/mobile.	System is fully functional and responsive; UI adapts to device screen sizes			
UAT_T C_NFT _017	User Satisfaction	Verify that the system achieves ≥90% user satisfaction	Production-like environment; 10 test users and collected the; feedback survey prepared	1.Provide test users with access to CDBMS. 2. Ask users to perform tasks (e.g., submit data, update data, generate report). 3. Collect feedback via survey (rating usability, intuitiveness). 4. Calculate average satisfaction score.	Average user satisfaction score is ≥90%			
Maintainability								
UAT_T C_NFT _018	Logging	Verify that the system logs errors and activities for debugging	Production-like environment; access to log files or database	1. Simulate an error (e.g., invalid login attempt). 2. Perform a valid action (e.g., data submission). 3. Inspect logs for error and action entries. 4. Verify log details (timestamp, user, error code).	Logs capture all errors and activities with accurate details			
UAT_T C_NFT _019	Code Modularity	Verify that the system's codebase is modular for maintenance	Access to source code; development team available for review	1. Review backend code (Node.js/Express) for modular structure (e.g., separate routes, controllers). 2. Review frontend code	Code is modular, well-documented, and follows MERN best practices			

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				(React) for component-based architecture. 3. Verify MongoDB schema design for scalability. 4. Check for code documentation.			

4.4 USABILITY TESTING

Test Case ID	Require ment	Test Scenario	Precondition s	Test Steps	Expected Result	Actu al Resul t	St at us	Com ment s
UAT_T C_FT_ UT_001	Navigation	Verify that the interface is intuitive and easy to navigate for all roles	Production-equi valent environment; test accounts for storekeeper, Assetmanager, HOO, Principal, Viewer etc; feedback survey prepared; application running React 18.3.1	1. Log in as each user role. 2. Perform role-specific tasks (e.g., Asset data submits complaint, Administrator generates report). 3. Check ease of menu access and page transitions. 4. Collect feedback via survey.	Navigation is intuitive; users complete tasks without assistance; satisfaction score ≥90%			
UAT_T C_FT_ UT_002	Responsive ness	Verify that the system is responsive across devices	Production-equi valent environment; test devices: Desktop (1920x1080), iPad (iOS 16+), Android 13 phone (1080x2400); test accounts for Complainant, Administrator; application	1. Access CDBMS on each device. 2. Perform actions: login, submit Asset or faculty data, view data. 3. Check layout adjusts to screen size. 4. Test touch interactions on tablet/mobile. 5. Collect feedback via survey.	UI adapts to screen sizes; all actions work seamlessly; touch interactions are smooth; satisfaction score ≥90%			

			running React 18.3.1					
UAT_T C_FT_ UT_003	Accessibilit y	Verify that toast notifications provide clear feedback	Production-equi valent environment; test accounts for Asset entry and Faculty Entryt; test data with invalid inputs; application running React 18.3.1	1. Log in as Storekeeper and submit a new asset data with invalid data (e.g., blank fields). 2. Check for toast notification with clear error message. 3. Log in as Asset Manager and update status with invalid input. 4. Verify notification clarity. 5. Collect feedback.	Toast notifications display clear, concise messages for errors and actions; users understand feedback; satisfaction score ≥90%			
UAT_T C_FT_ UT_004	Cross-Bro wser Compatibili ty	Verify that the system functions across browsers	Production-equi valent environment; latest versions of Chrome, Firefox, Edge, Safari; test accounts for Asset Entry and faculty entry, Administrator; application running React 18.3.1	1. Access CDBMS on each browser. 2. Perform actions: login, submit Asset data or faculty datat, view data. 3. Check UI rendering and functionality. 4. Verify toast notifications. 5. Collect feedback via survey.	All actions work correctly; UI renders properly; toast notifications display; satisfaction score ≥90%			
UAT_T C_FT_ UT_005	User Satisfaction	Verify that the system achieves ≥90% user satisfaction	Production-equi valent environment; 10 test users; collect feedback survey; application running MongoDB 7.0.5, Node.js 20.11.0, Express 4.21.2, React 18.3.1	1. Provide users access to CDBMS. 2. Ask users to perform role-specific tasks (e.g., submit Asset Entry, update Asset, generate report). 3. Collect feedback via survey on usability and experience. 4. Calculate average satisfaction score.	Average user satisfaction score is ≥90%			

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5   Environment Requirements

5.1   TEST ENVIRONMENTS

- **Test Environment Requirements**:
  - **Setup**: A production-equivalent environment mirroring the production infrastructure, capable of running the CDBMS application with MongoDB 7.0.5, Node.js 20.11.0, Express 4.21.2, and React 18.3.1.
  - **Hardware**:
    - Server: Minimum Intel i5 12th Gen or equivalent, 16GB RAM (32GB recommended), 512GB SSD for hosting the application and database.
    - Client Devices: Desktop (1920x1080 resolution), tablet (iPad with iOS 16+), mobile (Android 13 phone, 1080x2400 resolution) for responsiveness testing.
  - **Software**:
    - Database: MongoDB 7.0.5 for storing complaints and user data.
    - Backend: Node.js 20.11.0, Express 4.21.2 for API services.
    - Frontend: React 18.3.1 for the user interface.
    - Browsers: Latest versions of Chrome, Firefox, Edge, and Safari for cross-browser testing.
    - Testing Tools: Survey tool (e.g., Google Forms) for user feedback, browser developer tools for accessibility testing.
  - **Network**:
    - Stable internet connection (minimum 10 Mbps) to simulate production-like conditions.
    - Access to external services (e.g., Gmail SMTP for notifications).

  - **Test Data**:
    - Test user accounts for all roles (Storekeeper,Asset manager,Faculty Entry staff,Faculty Verifier,HOO,Principal,Viewer) with valid credentials.

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- Sample complaint data, including multimedia files (images ≤5 MB, videos ≤100 MB).
- Invalid input data for accessibility testing (e.g., blank fields, incorrect formats).
  - o **Access**:
    - Testers must have login credentials and role-specific permissions.
    - Secure access to the test environment via VPN or restricted network if required.
- **Security Requirements**:
  - o **Protocol**: The test environment must use HTTPS for all communications, with a valid SSL certificate to mirror production security.
  - o **Authentication**: JWT-based authentication for all API endpoints, ensuring only authorized users access the system.
  - o **Data Protection**: Test data must be anonymized or synthetic to avoid using real user information, complying with data protection best practices.
  - o **Access Control**: Role-Based Access Control (RBAC) configured to restrict testers to their assigned roles.
  - o **Logging**: Audit logs enabled to track user actions during testing for troubleshooting and compliance.

6   Sign-Off and Approval

The User Acceptance Testing (UAT) process and results outlined in this document have been reviewed and approved by the stakeholders. By signing this document, the stakeholders acknowledge that:
- The listed test cases have been executed as planned.
- The defects found during testing have been documented and addressed appropriately.
- The application/system meets the required business needs and is ready for production deployment.

6.1 STAKEHOLDER APPROVAL

Name	Designation	Department	Signature	Date