Requirements Traceability Matrix (RTM)

| | Req ID | Req Name | Req Description | Test Case ID | Test Case Name | Test Case Description | Test Steps | Test Data | Expected Result | Actual Result | Status | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | REQ-001 | User Login | The system shall allow registered users to log in with valid credentials. | TC-001 | Valid Login | Verify login with correct username and password | 1. Navigate to login page<br>2. Enter valid username<br>3. Enter valid password<br>4. Click Login | user1 / Pass@123 | User is redirected to dashboard | User is redirected to dashboard | Pass | |
| 2 | REQ-001 | User Login | The system shall allow registered users to log in with valid credentials. | TC-002 | Invalid Password | Verify login fails with incorrect password | 1. Navigate to login page<br>2. Enter valid username<br>3. Enter wrong password<br>4. Click Login | user1 / wrong | Error message displayed | Error message displayed | Pass | |
| 3 | REQ-001 | User Login | The system shall allow registered users to log in with valid credentials. | TC-003 | Empty Fields | Verify login fails when fields are empty | 1. Navigate to login page<br>2. Leave fields empty<br>3. Click Login | | Validation errors shown | Validation errors shown | Pass | |
| 4 | REQ-002 | Password Reset | The system shall allow users to reset their password via email. | TC-004 | Reset Request | Verify reset email is sent | 1. Click Forgot Password<br>2. Enter email<br>3. Submit | user1@mail.com | Reset email sent | Reset email sent | Pass | |
| 5 | REQ-002 | Password Reset | The system shall allow users to reset their password via email. | TC-005 | Expired Link | Verify expired reset link is rejected | 1. Use expired link<br>2. Enter new password<br>3. Submit | | Link expired message | Link expired message | Pass | |
| 6 | REQ-003 | Session Timeout | The system shall log out inactive users after 30 minutes. | TC-006 | Timeout | Verify session ends after inactivity | 1. Log in<br>2. Wait 30 minutes<br>3. Attempt action | | Redirected to login | Redirected to login | Pass | |
| 7 | REQ-004 | Role Management | The system shall support admin, editor, and viewer roles. | TC-007 | Admin Access | Verify admin can access all features | 1. Log in as admin<br>2. Navigate to admin panel | admin | Admin panel visible | Admin panel visible | Pass | |
| 8 | REQ-004 | Role Management | The system shall support admin, editor, and viewer roles. | TC-008 | Viewer Restriction | Verify viewer cannot edit | 1. Log in as viewer<br>2. Attempt to edit | viewer | Edit controls hidden | Edit controls hidden | Pass | |
| 9 | REQ-005 | Audit Logging | The system shall record all user actions in an audit log. | TC-009 | Log Entry | Verify action is logged | 1. Perform action<br>2. Check audit log | | Entry appears in log | Entry appears in log | Pass | |
| 10 | REQ-006 | Data Export | The system shall allow users to export data as CSV. | TC-010 | Export CSV | Verify CSV export works | 1. Navigate to data<br>2. Click Export<br>3. Select CSV | | CSV file downloaded | CSV file downloaded | Pass | |
| 11 | REQ-006 | Data Export | The system shall allow users to export data as CSV. | TC-011 | Export Empty | Verify export with no data | 1. Filter to no results<br>2. Click Export | | Empty CSV downloaded | Empty CSV downloaded | Pass | |
| 12 | REQ-007 | Data Import | The system shall allow users to import data from CSV. | TC-012 | Import Valid | Verify valid CSV import | 1. Navigate to import<br>2. Upload valid CSV | valid.csv | Data imported successfully | Data imported successfully | Pass | |
| 13 | REQ-007 | Data Import | The system shall allow users to import data from CSV. | TC-013 | Import Invalid | Verify invalid CSV is rejected | 1. Navigate to import<br>2. Upload malformed CSV | bad.csv | Error message displayed | Error message displayed | Pass | |
| 14 | REQ-008 | Search | The system shall provide full-text search across records. | TC-014 | Search Results | Verify search returns matching records | 1. Enter search term<br>2. Submit | keyword | Matching records shown | Matching records shown | Pass | |
| 15 | REQ-008 | Search | The system shall provide full-text search across records. | TC-015 | No Results | Verify search with no matches | 1. Enter search term<br>2. Submit | zzzzz | No results message | No results message | Pass | |
| 16 | REQ-009 | Pagination | The system shall paginate results with 25 items per page. | TC-016 | Page Navigation | Verify pagination controls | 1. Navigate to list<br>2. Click next page | | Next page displayed | Next page displayed | Pass | |
| 17 | REQ-010 | Notifications | The system shall send email notifications for assigned tasks. | TC-017 | Task Assigned | Verify email sent on assignment | 1. Assign task to user | user2 | Email received | Email received | Pass | |
| 18 | REQ-010 | Notifications | The system shall send email notifications for assigned tasks. | TC-018 | Task Completed | Verify email sent on completion | 1. Complete assigned task | | Email received | Email received | Pass | |
| 19 | REQ-011 | Dashboard | The system shall display a dashboard with key metrics. | TC-019 | Dashboard Load | Verify dashboard loads | 1. Log in<br>2. Navigate to dashboard | | Dashboard displayed | Dashboard displayed | Pass | |
| 20 | REQ-012 | Profile Update | The system shall allow users to update their profile. | TC-020 | Update Name | Verify name update | 1. Navigate to profile<br>2. Change name<br>3. Save | New Name | Name updated | Name updated | Pass | |
| 21 | REQ-012 | Profile Update | The system shall allow users to update their profile. | TC-021 | Update Email | Verify email update | 1. Navigate to profile<br>2. Change email<br>3. Save | new@mail.com | Email updated | Email updated | Pass | |
| 22 | REQ-013 | Two-Factor Auth | The system shall support two-factor authentication. | TC-022 | 2FA Setup | Verify 2FA setup | 1. Navigate to security<br>2. Enable 2FA<br>3. Scan QR code | | 2FA enabled | 2FA enabled | Pass | |
| 23 | REQ-013 | Two-Factor Auth | The system shall support two-factor authentication. | TC-023 | 2FA Login | Verify login with 2FA | 1. Log in<br>2. Enter 2FA code | 123456 | Logged in | Logged in | Pass | |
| 24 | REQ-014 | Rate Limiting | The system shall limit API requests to 100 per minute. | TC-024 | Rate Limit | Verify rate limit enforced | 1. Send 101 requests in 1 minute | | 429 response | 429 response | Pass | |
| 25 | REQ-015 | Backup | The system shall perform daily backups. | TC-025 | Backup Run | Verify backup completes | 1. Trigger backup | | Backup completed | Backup completed | Pass | |
| 26 | REQ-016 | Localization | The system shall support English and Spanish. | TC-026 | Spanish UI | Verify Spanish translation | 1. Change language to Spanish | es | UI in Spanish | UI in Spanish | Pass | |
| 27 | REQ-017 | Accessibility | The system shall meet WCAG 2.1 AA standards. | TC-027 | Screen Reader | Verify screen reader compatibility | 1. Use screen reader<br>2. Navigate page | | All elements announced | All elements announced | Pass | |
| 28 | REQ-018 | Mobile Responsive | The system shall be usable on mobile devices. | TC-028 | Mobile View | Verify mobile layout | 1. Open on mobile<br>2. Navigate pages | | Layout adapts | Layout adapts | Pass | |
| 29 | REQ-019 | Logout | The system shall allow users to log out. | TC-029 | Logout | Verify logout clears session | 1. Click Logout | | Redirected to login | Redirected to login | Pass | |
| 30 | REQ-020 | Bulk Delete | The system shall allow bulk deletion of records. | TC-030 | Bulk Delete | Verify bulk delete works | 1. Select multiple records<br>2. Click Delete | | Records deleted | Records deleted | Pass | |