**Use Case Descriptions**

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| **Use case 1** | **Register an account** |
| **Summary** | Create an account; system sends a verification email. |
| **Actor** | User |
| **Precondition** | User owns an email address. |
| **Postcondition** | Inactive account exists; verification email sent. |
| **Base sequence** | 1. User enters email & password [ALT1][ALT2]. 2. System creates an inactive account. 3. System sends a time-limited verification email [ALT3]. 4. System confirms registration. |
| **Alternate sequence (branch or exception)** | [ALT1] Email already registered.  [ALT2] Invalid email or weak password.  [ALT3] Email delivery issue.  [\*ALT0] Can cancel at any time. |
| **Note** | Covers requirement 1.1 |

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| **Use case 2** | **Verify email** |
| **Summary** | Activate an account via verification link. |
| **Actor** | User |
| **Precondition** | Inactive account; valid verification token issued. |
| **Postcondition** | Account marked verified. |
| **Base sequence** | 1. User follows email link. 2. System validates token [ALT1]. 3. System marks account verified and shows success. |
| **Alternate sequence (branch or exception)** | [ALT1] Token expired/invalid/already used.  [\*ALT0] Can cancel at any time. |
| **Note** | Covers requirement 1.2 |

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| **Use case 3** | **Log in** |
| **Summary** | Authenticate to access the application. |
| **Actor** | User |
| **Precondition** | Account exists and is verified. |
| **Postcondition** | Authentication session established. |
| **Base sequence** | 1. User logs in entering email & password [ALT1]. 2. System validates credentials. 3. Session created. |
| **Alternate sequence (branch or exception)** | [ALT1] Wrong credentials (go back to **1**).  [\*ALT0] Can cancel at any time. |
| **Note** | Covers requirement 1.3 |

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| **Use case 4** | **Reset password** |
| **Summary** | User resets forgotten password. |
| **Actor** | User |
| **Precondition** | User has an active account. |
| **Postcondition** | User regains access of the account. |
| **Base sequence** | 1. User inserts email address. 2. System validates email address [ALT1]. 3. System sends recovery email to user’s email address. 4. User inserts new password. 5. System validates password [ALT2]. 6. System assigns new password to email address. |
| **Alternate sequence (branch or exception)** | [ALT1] Email doesn’t exist/invalid.   * Go back to **1**.   [ALT2] Weak password.   * Go back to **4**.   [\*ALT0] Can cancel at any time. |
| **Note** | Covers requirement 1.4 |

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| **Use case 5** | **Log out** |
| **Summary** | End the authenticated session. |
| **Actor** | User |
| **Precondition** | Authenticated session exists. |
| **Postcondition** | Session revoked. |
| **Base sequence** | 1. User logs out. 2. System invalidates session and clears cookies. |
| **Alternate sequence (branch or exception)** | [\*ALT0] Can cancel at any time. |
| **Note** | Covers requirement 1.5 |

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| **Use case 6** | **Link Google account** |
| **Summary** | Link Google Drive for read-only access. |
| **Actor** | User |
| **Precondition** | User is logged in. |
| **Postcondition** | Google tokens stored securely; status Connected. |
| **Base sequence** | 1. User connects to Google. 2. System redirects to Google consent for read only access [ALT1]. 3. User consents; provider redirects back with code [ALT2]. 4. System exchanges code for tokens; stores encrypted [ALT3]. 5. System confirms connection with Google. |
| **Alternate sequence (branch or exception)** | [ALT1] User denies consent (go back to **1**).  [ALT2] Code missing/invalid (go back to **1**).  [ALT3] Token exchange fails (go back to **1**).  [\*ALT0] Can cancel at any time. |
| **Note** | Covers requirement 2.1 |

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| **Use case 7** | **Link Microsoft account (OneDrive)** |
| **Summary** | Link Microsoft for read-only access. |
| **Actor** | User |
| **Precondition** | User is logged in. |
| **Postcondition** | Microsoft tokens stored; status Connected. |
| **Base sequence** | 1. User connects to Microsoft. 2. Redirect to consent for read-only access [ALT1]. 3. User consents; tokens stored [ALT2]. 4. System confirms connection with Microsoft. |
| **Alternate sequence (branch or exception)** | [ALT1] User denies consent (go back to **1**).  [ALT2] Exchange fails (go back to **1**).  [\*ALT0] Can cancel at any time. |
| **Note** | Covers requirement 2.2 |

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| **Use case 8** | **Manage provider connection (status / refresh / disconnect)** |
| **Summary** | View connection state, auto-refresh tokens when needed, or disconnect. |
| **Actor** | User |
| **Precondition** | At least one provider previously linked. |
| **Postcondition** | Status displayed; token may be refreshed; provider may be disconnected. |
| **Base sequence** | |  |  | | --- | --- | | Scenario A View connection state | 1. User opens Connections. 2. System lists the providers with connection state. | | Scenario B Auto-refresh tokens when needed | 1. User performs an action that calls a provider API. 2. If access token expired, the system attempts to refresh once [ALT1]. | | Scenario C Disconnect from provider | 1. User clicks disconnect for a provider. 2. System deletes tokens. 3. Status becomes not connected [ALT2]. | |
| **Alternate sequence (branch or exception)** | [ALT1] Refresh failed (revoked/expired).   * Show reconnect.   [ALT2] Delete fails (no tokens found).   * Show success but allow reconnect later.   [ALT3] Email delivery issue.  [\*ALT0] Can cancel at any time. |
| **Note** | Covers requirement 2.3, 2.4, 2.5 |

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| **Use case 9** | **Add SharePoint sites** |
| **Summary** | Add SharePoint site(s) to include their document libraries. |
| **Actor** | User |
| **Precondition** | Microsoft account linked with delegated permissions. |
| **Postcondition** | Selected site IDs stored; libraries available in the system. |
| **Base sequence** | 1. User enters site URL or picks from list. 2. System validates URL [ALT1]. 3. System resolves site and lists its document libraries [ALT2]. 4. User selects libraries. 5. System stores selection. |
| **Alternate sequence (branch or exception)** | [ALT1] Invalid site URL (go back to **1**).  [ALT2] User lacks permission.  [ALT3] Email delivery issue.  [\*ALT0] Can cancel at any time. |
| **Note** | Covers requirement 2.6 |

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| **Use case 10** | **Browse unified files (read-only)** |
| **Summary** | Browse a single dashboard for all connected providers. |
| **Actor** | User |
| **Precondition** | At least one provider connected. |
| **Postcondition** | Read-only listing shown |
| **Base sequence** | 1. User wants to see all files. 2. System loads first page merged from connected providers. |
| **Alternate sequence (branch or exception)** | [\*ALT0] Can cancel at any time. |
| **Note** | Covers requirement 3.1 |

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| **Use case 11** | **Cross-provider search** |
| **Summary** | Search by name across all connected providers. |
| **Actor** | User |
| **Precondition** | At least one provider connected |
| **Postcondition** | Results displayed |
| **Base sequence** | 1. User enters file name 2. User selects one or both providers 3. System queries only selected providers 4. System aggregates and displays results [ALT1] [ALT2] |
| **Alternate sequence (branch or exception)** | [ALT1] Provider error.   * Retry or reconnect provider.   [ALT2] No matches.   * Go back to **1**.   [\*ALT0] Can cancel at any time. |
| **Note** | Covers requirement 3.2, 3.4 |

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| **Use case 12** | **Open item in provider & see item’s metadata** |
| **Summary** | Open the selected item in its native provider web app. View the selected item’s metadata |
| **Actor** | User |
| **Precondition** | Item exists; user has permission; provider reachable. |
| **Postcondition** | Provider viewer opened in a new tab.  Metadata of the selected item visible. |
| **Base sequence** | |  |  | | --- | --- | | Scenario A Open item in provider’s web app | 1. User selects item to open. 2. System opens the item’s URL in the providers web app (in a new tab) [ALT1]. | | Scenario B  See item’s metadata | 1. User selects item to view its meta data. 2. System shows items metadata. | |
| **Alternate sequence (branch or exception)** | [ALT1] Token expired.   * Attempt refresh   + On failure show reconnect   [ALT2] Permission denied/not found.   * Show error   + Go back to **1**.   [\*ALT0] Can cancel at any time. |
| **Note** | Covers requirement 3.3, 3.5 |