

**Mentora**

**Testing Documentation**

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**Table 7.1**

|  |  |
| --- | --- |
| Identifier | TC-1 (User Registration) |
| Related Requirement(s) | Sign-Up Functionality |
| Short Description | Validates that a new user can sign up successfully. |
| Pre-condition(s) | User is not logged in. |
| Input Data | Valid name, email, password. |
| Detailed Steps | 1. Open the app. 2. Navigate to the Sign-Up screen. 3. Enter name, email, password. 4. Click "Sign Up". |
| Expected Results | User is redirected to the Login screen, and data is stored in Firebase. |
| Post Condition(s) | User account is created. |
| Actual Results | Registration successful. |
| Test Case Result | PASS |

**Table 7.2**

|  |  |
| --- | --- |
| Identifier | TC-2 (User Login) |
| Related Requirement(s) | Login Functionality |
| Short Description | Validates user login with correct credentials. |
| Pre-condition(s) | User has a registered account. |
| Input Data | Valid email, password. |
| Detailed Steps | 1. Open the app. 2. Navigate to the Login screen. 3. Enter email and password. 4. Click "Login". |
| Expected Results | User is redirected to the Explore page. |
| Post Condition(s) | User is authenticated. |
| Actual Results | User successfully redirected to explore page. |
| Test Case Result | PASS |

**Table 7.3**

|  |  |
| --- | --- |
| Identifier | TC-3 (Course Enrolment) |
| Related Requirement(s) | Course Enrolment Functionality |
| Short Description | Validates that a user enrols in a course. |
| Pre-condition(s) | User is logged in. |
| Input Data | Click "Enrol Now" on a Course Detail Page. |
| Detailed Steps | 1. Navigate to the Explore page. 2. Click on a course. 3. User is redirected to Course Detail Page. 4. Click "Enrol Now". |
| Expected Results | Course appears in the Learn page. |
| Post Condition(s) | Course is added to the user’s enrolled list in Firebase |
| Actual Results | User successfully enrolled in a course |
| Test Case Result | PASS |

**Table 7.4**

|  |  |
| --- | --- |
| Identifier | TC-4 (Course Navigation) |
| Related Requirement(s) | Course Home Fragment Navigation |
| Short Description | Validates navigation between fragments (Home, Grades, Recommendations, Info). |
| Pre-condition(s) | User is enrolled in a course. |
| Input Data | Click on tabs in the Course Home screen. |
| Detailed Steps | 1. Navigate to the Learn page. 2. Click "Get Back Into" on an enrolled course. 3. Switch between Home, Grades, Recommendations, and Info tabs. |
| Expected Results | Correct fragment content is displayed. |
| Post Condition(s) | No data changes. |
| Actual Results | Smooth navigation between course tabs |
| Test Case Result | PASS |

**Table 7.5**

|  |  |
| --- | --- |
| Identifier | TC-5 (Profile Editing) |
| Related Requirement(s) | Edit Profile Functionality |
| Short Description | Validates user can update profile details. |
| Pre-condition(s) | User is logged in. |
| Input Data | New name, email, password |
| Detailed Steps | 1. Navigate to the Profile page. 2. Click "Edit Profile". 3. Update details and save. |
| Expected Results | Updated data is reflected in Firebase. |
| Post Condition(s) | User profile is updated. |
| Actual Results | User profile updated successfully. |
| Test Case Result | PASS |

**Table 7.6**

|  |  |
| --- | --- |
| Identifier | TC-6 (Search Functionality) |
| Related Requirement(s) | Search Activity |
| Short Description | Validates search for courses. |
| Pre-condition(s) | User is logged in. |
| Input Data | Search query (e.g., "Python"). |
| Detailed Steps | 1. Navigate to the Search page. 2. Enter a search query. 3. Click on a result. |
| Expected Results | Course detail view is displayed. |
| Post Condition(s) | Search history is updated. |
| Actual Results | Redirected to Course detailed view |
| Test Case Result | PASS |

**Table 7.7**

|  |  |
| --- | --- |
| Identifier | TC-7 (Account Deletion) |
| Related Requirement(s) | Delete Account Functionality |
| Short Description | Validates user can delete their account. |
| Pre-condition(s) | User is logged in. |
| Input Data | Confirm deletion. |
| Detailed Steps | 1. Navigate to Edit Profile. 2. Click "Delete Account". 3. Confirm action. |
| Expected Results | User data is removed from Firebase; redirected to Login screen. |
| Post Condition(s) | Account no longer exists. |
| Actual Results | User profile deleted |
| Test Case Result | PASS |

**Table 7.8**

|  |  |
| --- | --- |
| Identifier | TC-8 (Non-Functional Topics Display) |
| Related Requirement(s) | Explore Page UI Requirements |
| Short Description | Validate non-functional topics/guided projects are displayed but not clickable. |
| Pre-condition(s) | User is logged in and on the Explore page. |
| Input Data |  |
| Detailed Steps | 1. Navigate to Explore page. 2. Verify topics/guided projects are visible. 3. Attempt to click them. |
| Expected Results | No action/ small message |
| Post Condition(s) | No state change in the app. |
| Actual Results | “Not available for now” |
| Test Case Result | PASS |

**Table 7.9**

|  |  |
| --- | --- |
| Identifier | TC-10 (Empty Learn Page) |
| Related Requirements | Learn Page Empty State |
| Short description | Validate "Start Learning Now" redirects to Explore page if no enrolled courses. |
| Pre-Conditions | Newly created account, no registered |
| Input Data |  |
| Detailed Steps | 1. Log in with a new account (no enrollments). 2. Open Learn page. 3. Click "Start Learning Now". |
| Post Condition(s) | Redirected to Explore page. |
| Actual Results |  |
| Test Case Result |  |

**Table 7.10**

|  |  |
| --- | --- |
| Identifier | TC-10 (Course Progress Sync) |
| Related Requirements | Grades Fragment Progress Tracking |
| Short description | Ensure course progress updates reflect in Grades fragment. |
| Pre-Conditions | User is enrolled in a course and completes a module item. |
| Input Data | Completion of a quiz/assignment. |
| Detailed Steps | 1. Complete a module item (e.g., quiz). 2. Navigate to Grades fragment. |
| Post Condition(s) | Progress bar/weightage updates. |
| Actual Results |  |
| Test Case Result |  |

**Table 7.11**

|  |  |
| --- | --- |
| Identifier | TC-11 (Week Content Navigation) |
| Related Requirements | Course Home Fragment Navigation |
| Short description | Validate switching between Week 1/2/3 tabs displays correct content. |
| Pre-Conditions | User is enrolled in a course and on the Home fragment. |
| Input Data |  |
| Detailed Steps | 1. Click "Week 1" tab. 2. Click "Week 2" tab. 3. Click "Week 3" tab. |
| Post Condition(s) | Correct weekly content is displayed. |
| Actual Results |  |
| Test Case Result |  |

**Table 7.12**

|  |  |
| --- | --- |
| Identifier | TC-12 (PDF/Video Fragment Launch) |
| Related Requirements | Course Content Fragment Functionality |
| Short description | Validate clicking a module item opens the correct fragment (PDF/Video). |
| Pre-Conditions | User is on the home fragment of an enrolled course. |
| Input Data | Click Pdf or Video option |
| Detailed Steps | 1. Click a PDF item. 2. Verify PDF viewer opens. 3. Return to Home fragment. 4. Click a Video item. |
| Post Condition(s) | Video player opens. |
| Actual Results |  |
| Test Case Result |  |

**Table 7.13**

|  |  |
| --- | --- |
| Identifier | TC-13 (Marking Items as Complete) |
| Related Requirements | Course Progress Tracking |
| Short description | Validate module item icons change when marked as complete. |
| Pre-Conditions | User completes a module item (e.g., assignment). |
| Input Data | Completion of an item. |
| Detailed Steps | 1. Complete a module item. 2. Return to Home fragment. 3. The completed item’s boundary is marked as completed (coloured icon). |
| Post Condition(s) | Item icon updates (e.g., checkmark). |
| Actual Results |  |
| Test Case Result |  |

**Table 7.14**

|  |  |
| --- | --- |
| Identifier | TC-14 (Adaptive Recommendations) |
| Related Requirements | Recommendations Engine |
| Short description | Validate recommended courses appear based on user progress. |
| Pre-Conditions | User completes 50% of a course. |
| Input Data |  |
| Detailed Steps | 1. Open Recommendations fragment. 2. Check suggested courses. |
| Post Condition(s) | Relevant courses are displayed. |
| Actual Results |  |
| Test Case Result |  |

**Table 7.15**

|  |  |
| --- | --- |
| Identifier | TC-15 (Next-Step Course Enrolment) |
| Related Requirements | Recommendations Engine |
| Short description | Validate clicking a next-step course opens its detail view. |
| Pre-Conditions | User is on Recommendations fragment. |
| Input Data |  |
| Detailed Steps | Click a next-step course. |
| Post Condition(s) | Course detail view opens. |
| Actual Results |  |
| Test Case Result |  |

**Table 7.16**

|  |  |
| --- | --- |
| Identifier | TC-16 (Certificate Display) |
| Related Requirements | Profile Certificates |
| Short description | Validate certificates appear on Profile page if earned. |
| Pre-Conditions | User completes a course. |
| Input Data |  |
| Detailed Steps | 1. Navigate to Profile page. 2. Check certificates section. |
| Post Condition(s) | Certificate is visible. |
| Actual Results |  |
| Test Case Result |  |

**Table 7.17**

|  |  |
| --- | --- |
| Identifier | TC-17 (Sign Out) |
| Related Requirements | Profile Management |
| Short description | Validate user is logged out and redirected to Login screen. |
| Pre-Conditions | User is logged in. |
| Input Data |  |
| Detailed Steps | 1. Navigate to Edit Profile. 2. Click "Sign Out". |
| Post Condition(s) | Login screen opens. |
| Actual Results |  |
| Test Case Result |  |

**Table 7.18**

|  |  |
| --- | --- |
| Identifier | TC-18 (Invalid Login) |
| Related Requirements | Authentication Error Handling |
| Short description | Validate error message for invalid credentials. |
| Pre-Conditions | User is on Login screen. |
| Input Data | Invalid email/password. |
| Detailed Steps | 1. Enter invalid email/password. 2. Click "Login". |
| Post Condition(s) | Error message displayed. |
| Actual Results |  |
| Test Case Result |  |

**Table 7.19**

|  |  |
| --- | --- |
| Identifier | TC-19 (Duplicate Registration) |
| Related Requirements | Sign-Up Validation |
| Short description | Prevent registration with an existing email. |
| Pre-Conditions | User is on Sign-Up screen. |
| Input Data | Existing email. |
| Detailed Steps | 1. Enter existing email. 2. Click "Sign Up". |
| Post Condition(s) | "Email already exists" error. |
| Actual Results |  |
| Test Case Result |  |

**Table 7.20**

|  |  |
| --- | --- |
| Identifier | TC-20 (Search for Non-Existent Course) |
| Related Requirements | Search Empty State |
| Short description | Validate empty state for no search results. |
| Pre-Conditions | User is on Search page. |
| Input Data | "InvalidCourse123". |
| Detailed Steps | 1. Navigate to the same course in Explore page. 2. Click "Enrol Now". |
| Post Condition(s) | "No results found" message. |
| Actual Results |  |
| Test Case Result |  |

**Table 7.21**

|  |  |
| --- | --- |
| Identifier | TC-21 (Enrol Without Internet) |
| Related Requirements | Offline Error Handling |
| Short description | Validate enrolment fails gracefully offline. |
| Pre-Conditions | Device is offline. |
| Input Data |  |
| Detailed Steps | 1. Turn off internet. 2. Click "Enrol Now" on a course. |
| Post Condition(s) | "No connection" error. |
| Actual Results |  |
| Test Case Result |  |

**Table 7.22**

|  |  |
| --- | --- |
| Identifier | TC-22 (View Enrolled Courses Offline) |
| Related Requirements | Offline Caching |
| Short description | Validate Learn page shows cached enrolled courses offline. |
| Pre-Conditions | User has enrolled courses (online). |
| Input Data |  |
| Detailed Steps | 1. Go offline. 2. Open Learn page. |
| Post Condition(s) | Enrolled courses are visible. |
| Actual Results |  |
| Test Case Result |  |

**Table 7.23**

|  |  |
| --- | --- |
| Identifier | TC-23 (Invalid Email Format) |
| Related Requirements | Input Validation |
| Short description | Validate sign-up/login rejects invalid emails. |
| Pre-Conditions | User is on Sign-Up/Login screen. |
| Input Data | "user@". |
| Detailed Steps | 1. Enter "user@". 2. Click "Sign Up/Login". |
| Post Condition(s) | "Invalid email format" error. |
| Actual Results |  |
| Test Case Result |  |

**Table 7.24**

|  |  |
| --- | --- |
| Identifier | TC-24 (Explore Page Load Time) |
| Related Requirements | Performance Requirements |
| Short description | Validate Explore page loads within 2 seconds. |
| Pre-Conditions | User is logged in. |
| Input Data |  |
| Detailed Steps | 1. Navigate to Explore page. 2. Measure load time. |
| Post Condition(s) | Load time ≤2 seconds. |
| Actual Results |  |
| Test Case Result |  |

**Table 7.25**

|  |  |
| --- | --- |
| Identifier | TC-25 (Firebase Response Delay) |
| Related Requirements | API Handling |
| Short description | Validate app displays loading spinners during Firebase delays. |
| Pre-Conditions | Simulate Firebase delay (e.g., 5 seconds). |
| Input Data |  |
| Detailed Steps | 1. Trigger an action requiring Firebase (e.g., login). 2. Observe UI during delay. |
| Post Condition(s) | Loading spinner is visible. |
| Actual Results |  |
| Test Case Result |  |

**Table 7.26**

|  |  |
| --- | --- |
| Identifier | TC-26 (Sensitive Data Storage) |
| Related Requirements | Data Encryption |
| Short description | Validate passwords are encrypted in Firebase. |
| Pre-Conditions | User has signed up. |
| Input Data |  |
| Detailed Steps | Check Firebase database for password field. |
| Post Condition(s) | Password is hashed/encrypted. |
| Actual Results |  |
| Test Case Result |  |

**Summary of Test Results**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Identifier | Test cases run | Number of defects found | Number of defects corrected so far | Number of defects needs to be corrected |
| Registration | TC-1 |  |  |  |
| Login | TC-2 |  |  |  |
| Course Enrolment | TC-3 |  |  |  |
| Course Navigation | TC-4 |  |  |  |
| Profile Editing | TC-5 |  |  |  |
| Search | TC-6 |  |  |  |
| Account Deletion | TC-7 |  |  |  |
| Topics Display | TC-8 |  |  |  |
| Empty Learn Page | TC-9 |  |  |  |
| Course Progress Sync | TC-10 |  |  |  |
| Week Content Navigation | TC-11 |  |  |  |
| Video/Pdf Viewer | TC-12 |  |  |  |
| Item Completion | TC-13 |  |  |  |
| Adaptive Recommendations | TC-14 |  |  |  |
| Next step Courses Display | TC-15 |  |  |  |
| Certificate Display | TC-16 |  |  |  |
| Sign Out | TC-17 |  |  |  |
| Invalid Login | TC-18 |  |  |  |
| Duplicate Registration | TC-19 |  |  |  |
| Non existent Search Query | TC-20 |  |  |  |
| Offline Course Enrolment | TC-21 |  |  |  |
| Offline Enrolled Courses | TC-22 |  |  |  |
| Invalid Email | TC-23 |  |  |  |
| Explore Page Loader | TC-24 |  |  |  |
| Firebase Data Storage | TC-25 |  |  |  |
| Sensitive Data Storage | TC-26 |  |  |  |
|  |  |  |  |  |