# **Bug List for AI-Powered eLearning Platform**

## **Bug 1: Invalid Email Format Accepted in Registration**

* **User Story**: 1.1 (User Registration)
* **Task**: Task 1.1.4 (Test Registration API)
* **Description**: The registration API accepts invalid email formats (e.g., "user@.com") without proper validation, allowing incorrect user data to be stored.
* **Steps to Reproduce**:
  1. Send a POST request to /api/register with email="user@.com" and a valid password.
  2. Check the API response and database.
* **Expected Result**: API returns 400 Bad Request with error message "Invalid email format."
* **Actual Result**: API returns 200 OK, and user is registered with invalid email.
* **Severity**: High (affects user data integrity).
* **Priority**: High (critical for secure registration).
* **Environment**: API tested with Postman, Chrome 128.0, Linux server.
* **Assigned To**: Developer (API team).
* **Jira Status**: To Do.

## **Bug 2: Email Verification Link Not Expiring**

* **User Story**: 1.1 (User Registration)
* **Task**: Task 1.1.5 (Test Email Verification Flow)
* **Description**: The email verification link does not expire after 24 hours, allowing users to activate accounts with outdated links.
* **Steps to Reproduce**:
  1. Register a user via /api/register.
  2. Receive the verification email and wait 25 hours.
  3. Click the verification link.
* **Expected Result**: Link fails with an error message: "Verification link expired."
* **Actual Result**: Account is activated successfully.
* **Severity**: Medium (security concern but not critical).
* **Priority**: Medium (should be fixed before launch).
* **Environment**: Tested with Mailtrap, Chrome 128.0, Windows 10.
* **Assigned To**: Developer (backend team).
* **Jira Status**: To Do.

## **Bug 3: Course Recommendations Not Updating**

* **User Story**: 3.1 (Course Recommendations)
* **Task**: Task 3.1.4 (Test Recommendation API)
* **Description**: Course recommendations do not update within 5 seconds after changing user preferences, causing outdated suggestions.
* **Steps to Reproduce**:
  1. Log in as a user and update preferences (e.g., change from "Programming" to "Data Science").
  2. Send GET request to /api/recommendations.
  3. Check response within 5 seconds.
* **Expected Result**: Updated recommendations reflect new preferences within 5 seconds.
* **Actual Result**: Old recommendations (e.g., Programming courses) returned for up to 30 seconds.
* **Severity**: Medium (affects user experience).
* **Priority**: High (core AI feature).
* **Environment**: API tested with Postman, Node.js backend, Chrome 128.0.
* **Assigned To**: Developer (AI team).
* **Jira Status**: To Do.

## **Bug 4: Inaccurate AI Recommendation Relevance Score**

* **User Story**: 3.1 (Course Recommendations)
* **Task**: Task 3.1.5 (Test Recommendation Accuracy)
* **Description**: The relevance score for recommended courses is inconsistent, showing low scores for highly relevant courses based on user preferences.
* **Steps to Reproduce**:
  1. Create a user profile with preference "Python, Beginner."
  2. Check recommendations via /api/recommendations.
  3. Review relevance scores for Python courses.
* **Expected Result**: Python beginner courses have high relevance scores (>0.8).
* **Actual Result**: Python courses have low scores (e.g., 0.3) or are not recommended.
* **Severity**: Medium (impacts AI feature quality).
* **Priority**: Medium (needs refinement for user trust).
* **Environment**: Tested with predefined user profiles, Python backend.
* **Assigned To**: Developer (AI team).
* **Jira Status**: To Do.

## **Bug 5: Quiz Image Not Rendering on Mobile**

* **User Story**: 4.1 (Interactive Quiz Interface)
* **Task**: Task 4.1.3 (Test Quiz Functionality)
* **Description**: Image-based quiz questions fail to render on mobile devices, showing a broken image icon instead.
* **Steps to Reproduce**:
  1. Log in as a student on a mobile device (e.g., Android 14, Chrome 128.0).
  2. Start a quiz with image-based questions.
  3. Observe the image display.
* **Expected Result**: Images load correctly in the quiz UI.
* **Actual Result**: Broken image icon displayed.
* **Severity**: High (blocks quiz functionality on mobile).
* **Priority**: High (affects mobile user experience).
* **Environment**: Tested on Samsung Galaxy S23, Chrome 128.0.
* **Assigned To**: Developer (frontend team).
* **Jira Status**: To Do.

## **Bug 6: Quiz Accessibility Issue with Screen Reader**

* **User Story**: 4.1 (Interactive Quiz Interface)
* **Task**: Task 4.1.4 (Test Quiz Accessibility)
* **Description**: The quiz UI does not properly support screen readers, failing to read question text for visually impaired users.
* **Steps to Reproduce**:
  1. Open a quiz on Chrome 128.0 with NVDA screen reader enabled.
  2. Navigate to a question using keyboard controls.
  3. Listen for screen reader output.
* **Expected Result**: Screen reader reads question text and answer options clearly.
* **Actual Result**: Screen reader skips question text or reads it incompletely.
* **Severity**: High (violates WCAG 2.1 accessibility).
* **Priority**: High (critical for inclusivity).
* **Environment**: Tested with NVDA, Chrome 128.0, Windows 10.
* **Assigned To**: Developer (frontend team).
* **Jira Status**: To Do.

**Notes**:

* Log each bug in Jira as a “Bug” issue type, linked to the respective user story and task.
* Assign severity (High/Medium/Low) based on impact and priority (High/Medium/Low) based on urgency.
* Testers should provide screenshots, logs (e.g., API response logs from Postman), and device details.
* Use labels in Jira (e.g., “Backend,” “Frontend,” “API,” “Accessibility”) for filtering.
* Schedule bug fixes in the next sprint, prioritizing High severity/priority issues.