System Test Suite 4: Teacher Grading Submissions Workflow

Objective

Verify that a teacher can successfully view student submissions, grade submissions manually, and utilize the auto-grade feature.

Pre-conditions

1. System is running (Backend: localhost:3000, Frontend: localhost:3001).
2. Test database is seeded with sample data.
3. Teacher is logged in (email: alan@gmail.com, password: alanalan).
4. An assignment exists with at least one student submission.
5. Browser is open and cleared of cache/cookies

Test Environment

- **Backend URL:** http://localhost:3000
- **Frontend URL:** http://localhost:3001
- **Database:** PostgreSQL (seeded)
- **Browser:** Chrome/Firefox/Edge (latest version)

Test Cases

Test Case 4.1: View Student Submissions

Field	Description
Test Case ID	STS-004-TC-01
Test Title	Verify teacher can view list of student submissions
Test Priority	High
Pre-condition	Assignment exists with at least one student submission

Test Steps:

1. Navigate to class detail page.
2. Click on assignment "Historical Sources Review".
3. Scroll to "Student Submissions" section.
4. Review submission list.

Expected Result:

- Assignment detail page shows teacher view.
- "Student Submissions" section displays a list of all submissions.
- For each submission, the following are visible:
    - Student initials in colored circle.
    - Student full name.
    - Submission timestamp.
    - Status badge (Graded/Pending).
    - Score (if graded) or "Pending" message.
    - "View/Grade" button.
- "Auto-Grade All" button is visible at top-right.

Test Case 4.2: Grade Student Submission Manually

Field	Description
Test Case ID	STS-004-TC-02
Test Title	Verify teacher can manually grade a submission
Test Priority	High
Pre-condition	Teacher is viewing assignment with student submissions

Test Steps:

1. Click "View/Grade" button for a student (e.g., Jane Doe).
2. Review submission content and files.
3. In "Grade Submission" panel:
    - Enter score: 85.
    - Enter comment: "Good analysis of primary sources. Your synthesis is strong, but consider adding more context about the historical period. Well-cited work.".
4. Click "Submit Grade" button.
5. Wait for confirmation

Expected Result:

- Student name, assignment title, and submission timestamp.
- "Submitted Files" section with download links.
- "Grade Submission" panel with Score input field (number), Teacher's Comment textarea, and Submit Grade button.

After submission:

- Success message ("Grade Saved!") appears.
- Button changes to show checkmark.
- Redirects to assignment detail page after 1-2 seconds.
- Student's submission now shows "Graded" status with score

Test Case 4.3: Use Auto-Grade Feature

Field	Description
Test Case ID	STS-004-TC-03
Test Title	Verify teacher can use auto-grade feature
Test Priority	Medium
Pre-condition	Assignment has multiple ungraded submissions

Test Steps:

1. Navigate to assignment detail page with ungraded submissions.
2. Click "Auto-Grade All" button at top-right.
3. Confirm action in popup dialog.
4. Wait for processing.
5. Review updated submissions.

Expected Result:

- "Auto-Grade All" button is visible when ungraded submissions exist.
- Clicking button shows confirmation dialog: "Are you sure you want to auto-grade all ungraded submissions? This action can be reviewed and edited later.".
- After confirming:
  - Button shows loading state ("Grading...").
  - Success message appears: "Auto-grading complete (X submissions graded).".
  - All previously ungraded submissions now show scores.
  - Teacher comment reads: "Auto-graded by system".
  - Scores are calculated based on content length (deterministic algorithm).
  - Teacher can still manually edit auto-graded scores.