Classync - Virtual Classroom Platform

System-Testing Report

Group - 33

Course: Software Engineering

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This report summarizes the system testing performed on our Classroom Platform "Classync" project. System testing focused on black-box testing of major features such as login, courses, assignments, submissions, and notifications. Acceptance testing was also done to verify the full workflow from teacher to student.

In scope:

- Login
- Course creation & enrollment
- Assignment creation & submission
- Grading
- File uploads
- Notifications

Not in scope:

- Advanced analytics
- Performance testing
- Mobile app (if not built)

Test Environment :-
Browser used: Safari/Chrome
Accounts used:

- Teacher: *vohraatik1@gmail.com*
- Student: *tanujkanani23@gmail.com*

System URL or app version: https://se-virtual-classroom-platform.vercel.app/

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Test Cases and their results :-
https://docs.google.com/spreadsheets/d/1JGSo47NEhZdzXZjuLg9jBWIWtJLBK7qFQCMVSeF-HLo/edit?usp=sharing

Requirements :-

A	B
Requirement ID	Requirement Description
REQ-001	User authentication: system shall allow users to log in and log out securely.
REQ-002	Course management: teachers shall be able to create, edit, and delete courses.
REQ-003	Enrollment: students shall enroll in courses using an enrollment code and withdraw.
REQ-004	Assignment management: teachers shall create/edit/delete assignments with deadlines and attachments.
REQ-005	Submission handling: students shall submit assignments (file/text) and resubmit before deadline.
REQ-006	Grading: teachers shall grade submissions, edit grades, and control grade visibility.
REQ-007	File resources: system shall support course resource uploads and downloads with type/size checks.
REQ-008	Notifications: system shall deliver in-app (and optional email) notifications for assignment/events.
REQ-009	Chat: each course shall have a simple class chat supporting plain text messages for members.
REQ-010	Reports: system shall generate basic reports like grade distributions as CSV/PDF as supported.

https://docs.google.com/spreadsheets/d/1E5mlFslgwgsY9LeFHYz-OdZvaPbJvAb2rNn_6xxDdfE/edit?usp=sharing

Evidences :-
https://drive.google.com/drive/folders/1HDf-4J3nouIvuwvtvhp3WbAPHVZZIwRa?usp=sharing

Acceptance Tests :-

AT - 01 :- Full teaching workflow (create -> enroll -> assign -> submit -> grade

Preconditions :- Teacher account and two student accounts exist. Clean test course not present.

Steps :-
1) Login as teacher
2) Create a new course with title 'AT01_Course_<initials>_<date>'.
3) Generate enrollment code for the course and copy it.
4) Login as student1 (student1@test.com) and enroll using the code.
5) Login as student2 (student2@test.com) and enroll using the code.
6) As teacher, create an assignment with title 'AT01_HW1', attach a small PDF, set a deadline 2 days from now, and save.
7) As student1, download the attachment and submit a valid PDF before the deadline.
8) As teacher, open student1's submission, enter grade (e.g., 85/100) and feedback, save and release the grade.
9) As student1, verify notification and view the grade & feedback.

Expected Result :-
Course created and visible in teacher list; students enroll successfully; assignment visible to enrolled students; submission recorded with timestamp; teacher can grade and release; student sees grade & feedback.

Status :- Pass

AT - 02 :- Enrollment and roster management

Preconditions :- Teacher account exists; course not yet created for this AT.

Steps :- 1) Login as teacher and create course 'AT02_Roster_<initials>_<date>'.
2) Generate enrollment code and share it.
3) Login as student1 and student2 and enroll using the code.
4) As teacher, open Roster and verify both students listed.
5) Make sure there are 2 participants only.
6) As student2, withdraw from course.
7) As teacher, refresh roster and verify student2 removed.

Expected Result :- Both students appear in roster; after withdrawal student2 no longer appears in roster.

Status :- Pass

AT - 03 :- File upload/download integrity & limits

Preconditions :- Teacher and student accounts present; course with resource area available.

Steps :- 1) Login as teacher to course 'AT03_Files_<initials>_<date>'.
2) Upload a small PDF file (e.g., syllabus.pdf) as a course resource.
3) As student, download the resource and open to confirm content intact.
4) As student, attempt to upload an unsupported file type (e.g., .exe) to an assignment or chat and verify rejection.
5) As student, attempt to upload a file larger than the allowed maximum size and verify rejection message.

Expected Result :-
Valid uploads succeed and downloaded files are intact.

Status :- Pass

AT - 04 :- Notifications & access control

Preconditions :- Teacher and student accounts exist; student enrolled in the course used.

Steps :- 1) As teacher, post an announcement and create a small assignment in the course 'AT04_Notify_<initials>_<date>'.
2) As student, check in-app notifications and open the classroom to reach the announcement/assignment.
3) As student, attempt to access a teacher-only page (e.g., /create-course) by direct URL.
4) Verify that the direct access is blocked (403 or redirect to unauthorized/login).

Expected Result :- Student receives in-app notification opens the correct page; unauthorized access attempts are blocked appropriately.

Status :- Pass