

Creating a New Quiz

ITS Secure Quiz System

This guide explains how to create a new section-specific quiz using a CSV file. The website is deployed once. New quizzes are created from the instructor dashboard without uploading a new website ZIP.

1. Prepare the CSV File

Use the included sample_quiz.csv file as the template. Keep the column names exactly the same. Each row represents one MCQ. Correct answers are stored securely and are never shown to students during the quiz.

Column	Purpose
question_id	Unique ID such as q1, q2, q3
question_text	The question stem shown before options
option_a to option_d	Four MCQ options
correct_option	A, B, C, or D
expected_approach	Formula, method, or reasoning expected from students
marks	Marks for the question
approach_time_seconds	Time for writing the approach
answer_time_seconds	Time for selecting the option
question_type	Conceptual, calculation, interpretation, or general
section	Optional section label

2. Upload Through Instructor Dashboard

- Open the instructor dashboard and log in with your instructor email and password.
- Enter the quiz title and assigned section.
- Set the opening and closing date/time for that section.
- Choose the CSV file and click Validate and Publish Draft.
- The system will generate a random quiz code and unpredictable secure link slug.
- Share the link and code only with the intended section.

3. Student Flow

Students sign in with Google, enter ERP, section, quiz code, and the secure slug if required. For each question, they first write their approach. Only after the approach is saved are the options fetched securely.

4. Anti-Cheating Locking Rule

If the system detects tab switching, window switching, focus loss, full-screen exit, page hiding, refresh attempt, or similar activity, the attempt is locked server-side. Once locked, the student interface freezes and later answer submissions are rejected. The instructor must decide whether to unlock or terminate the attempt.

5. Timing Suggestions

Question Type	Approach Time	Answer Time
Simple MCQ	30 to 45 seconds	45 to 60 seconds
Conceptual or interpretation	45 to 60 seconds	60 to 90 seconds
Calculation-based	60 to 120 seconds	90 to 150 seconds

6. Cloudflare and Firebase Notes

- Firebase Authentication controls student Google login and instructor email/password login.
- Cloud Firestore stores quizzes, sessions, attempts, responses, and violation logs.
- Cloudflare Pages hosts the website.
- Cloudflare Pages Functions perform trusted operations such as protected question delivery, grading, and locking.
- The Firebase service account private key must be stored only as a Cloudflare environment variable, never in the website code.

7. Before a Real Quiz

- Test with one dummy student account first.
- Confirm that the instructor can upload CSV and see attempts.
- Confirm that switching tabs locks the attempt.
- Confirm that correct answers are not visible in browser source or network responses to students.
- Use a short trial quiz before using it for marks.

This is a starter deployment guide. For high-stakes use, run a full security test with realistic student accounts before the first graded quiz.