

RoboTech Web SIG Assignment: Online Quiz Module

Objective

Design and implement an Online Quiz Module web application that allows organizers to create and manage quizzes and participants to take quizzes. The application should also support proctoring features as bonus functionality. Add [10c13adityakumarsahu](#) as a collaborator in your GitHub repository for the responses to be accepted.

Assignment Details

Core Features

- **Organizer View:**

- Create, edit, and delete quizzes
- Add multiple-choice questions (MCQs) with correct answers and scoring
- View participant results and scores

- **Participant View:**

- Register and log in to take quizzes
- Attempt quizzes within a time limit
- View results immediately after submission

- **Proctoring (Bonus):**

- Implement webcam monitoring or screen focus detection
- Detect suspicious activities (tab switching, multiple faces, etc.)
- Log proctoring data for organizer review

- **Automated Quiz Maker (Bonus):**

- Import quiz questions from text documents or Google Docs format
- Automatically parse and add questions into the quiz database

Technical Requirements

- Use **Django (MTV/MVC architecture)** as the backend framework
- Implement a **RESTful API** with Django REST Framework for frontend-backend communication
- Frontend can be server-rendered templates or single page app (SPA) consuming the API
- Use a relational database (SQLite/PostgreSQL)
- User authentication and role-based access (organizers vs participants)
- Responsive design for mobile and desktop browsers

Score Distribution

Feature	Marks
Organizer View (CRUD quizzes)	25
Participant View (Quiz attempt & result)	25
User Authentication and Roles	15
RESTful API Implementation	15
Proctoring Feature (Bonus)	10
Automated Quiz Maker (Bonus)	10
Code Quality, Documentation, UI/UX	10
Total	100 (plus bonuses)

Deliverables

- Source code repository (GitHub) with clear README
- Documentation explaining architecture, API endpoints, and usage

Timeline

- Total time: 5 days from assignment release
- Suggested milestones:
 1. Day 1-2: Setup backend, user auth, organizer CRUD
 2. Day 3: Participant quiz attempt and scoring
 3. Day 4: REST API and frontend integration
 4. Day 5: Bonus features, testing, and documentation

Support and Doubts

For questions and doubts, please use the following communication channels:

- **GitHub:** 10c13adityakumarsahu
- **Phone:** 7676202418