

CodeCraft Online Round

Theme: Campus Experience Enhancement

Problem Statement

Design and develop a web-based or mobile application that meaningfully enhances the academic, administrative, or day-to-day experience of students and faculty within a university campus environment.

Participants must select **one** of the problem options described below and build a functional prototype that satisfies all mandatory requirements.

General Technical Requirements

The following requirements apply to **all submissions**, irrespective of the chosen problem option:

- Solutions may be web-based, mobile-based, or hybrid
- Backend services and database integration are mandatory
- Core application data must be dynamically managed (hardcoded data is not permitted)
- Clear separation of user and administrative roles is required

Option 1: Campus Maintenance & Issue Tracking System

Objective

Develop an application that enables campus users to report maintenance or administrative issues and allows authorized administrators to track, manage, and resolve those issues efficiently.

Mandatory Features

1. User authentication (registration and login)
2. Administrator authentication with restricted access
3. Issue reporting with title, description, and image upload
4. Issue listing with status indicators (Open / In Progress / Resolved)
5. Responsive, intuitive, and navigable user interface

Additional Features (Optional)

Teams may implement additional functionality that enhances usability, automation, transparency, or efficiency within the issue resolution workflow.

All additional features must be **clearly documented** in the presentation and demonstrated in the demo video.

Option 2: Academic Collaboration & Learning Platform

Objective

Create a digital platform that facilitates academic collaboration by enabling students and faculty to share learning resources, exchange ideas, and engage in structured discussion.

Mandatory Features

1. User authentication and profile creation
2. Administrative role for content moderation
3. Resource upload and sharing system (notes, PDFs, links)
4. Search and categorization of uploaded resources
5. Discussion forum or comment-based interaction mechanism

Additional Features (Optional)

Teams are encouraged to introduce features that improve collaboration, discoverability of content, or overall user experience.

Any additional features must be properly documented and demonstrated during evaluation.

Submission Requirements

- A demo video showcasing the working application
- A presentation covering problem understanding, system architecture, implemented features, and enhancements beyond mandatory requirements
- Source code repository (GitHub, GitLab, or equivalent) containing the implemented solution. The repository may be private, but must be accessible to judges for verification purposes.

Evaluation and Shortlisting

Submissions will be evaluated based on the following criteria:

- Functional correctness and stability
- Completeness of mandatory feature implementation
- System design clarity and maintainability
- Quality, relevance, and impact of additional features

Only the top 10 teams from the Online Round will be shortlisted to participate in the Offline Round.

Final Notes

- Use of AI-assisted tools is permitted
- The decision of the organizers and judges shall be final and binding