



Indian Institute of Technology Guwahati

KRITI '23

Problem Statement - I
Software Development

(High Prep - 400 Points)

Organizer

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Software Development

Coding Club 400 Points

Organizer : [Gunjan Dhanuka](#) Start : 23/01

Email : codingclub@iitg.ac.in End : 18/02

Problem Statement

Design and develop a “Campus Catalogue” application (web or mobile app) which can be used by the campus residents to check if a particular shop is open right now or not, what is its menu / services list and an option to place an order directly. There would also be a Shop side of the app visible to the shop and the restaurants from which they can track the orders they have received, and update their menu and status. Below are few examples:

1. Roasted Pot in Khokha – A student first checks on the app if Roasted Pot is open, then he clicks on it to view the menu and the items available. He can then add his items of choice to the cart and place a prepaid order. This order would be sent to the shop upon which he can either confirm or reject the order. If the order is rejected, the money is refunded back to the customer. On acceptance, a notification will come on the customer's side. Then he can go to the Roasted Pot shop after some time and show his unique QR code to get his order. Roasted Pot can mark the order as completed only after they scan this QR code.
2. Core 3 stationery – A student checks on the app if the Core 3 Stationery shop is open or not. If it is open, he can then send whatever PDF/image he wants to send through the app and select one of the pre-defined print options. Then the flow is similar as above, and when he goes to collect the prints, he just needs to show the QR code to confirm that it is his order.



Software Development

Things to keep note of in the application

1. There are two main types of users – customers and shopkeepers. There should be enough facilities for both of these stakeholders.
2. There are bonus points for integrating a payment gateway for prepaid orders and refunding.
3. The home page of the application can feature the trending shops, or suggest meals according to the time of the day.
4. There need not be any delivery service in the application. The customer is expected to go and collect his order by himself.
5. Any technologies can be used, but good working apps ready for deployment are to be submitted. No prototypes are allowed for final submission.

Team Formation

A team can consist of a maximum of 8 members, with the following rules:-

1. There should be at-least 3 second-year students.
2. There should be at-least 1 first-year student.

Final Submission

The submission will be in the form of .apk (or any other app executable/ installation package) and hosted website URL. One or two GitHub repositories containing the mobile and web applications should also be submitted at the end of the event. Proper instructions to get the applications running are to be mentioned in both the README.md files in the repositories (not doing so will lead to score reduction).



Judging Criteria

1. Novelty of the idea and implementation
2. Working of the app
3. UI/UX of the app
4. Proper setup instructions
5. Maintenance of a list of features present in the application
6. Maintenance of a list of present bugs in the application (using GitHub Issues)
7. Maintenance of Github repository with proper commits from ALL team members
8. Penalty score would be applied for each unlisted bug encountered in the app or web application.
9. The evaluation criteria is as follows:
 - a. **Novelty of your solution:** Originality & creativity of the concept
 - b. **Research:** The depth and effectiveness of the research that was undertaken for the solution
 - c. **Effectiveness:** How adept is your solution at tackling the different use cases, problems and scenarios of the club
 - d. **Feasibility of your solution:** Practicality, scalability & cost-effectiveness in the real world

Point Distribution

Proper user research and UI / UX of the application - 100 points

Development of the customer side application as per the designed UI / UX - 150 points

Development of the shop/restaurant side application as per the designed UI / UX - 150 points



General Rules

1. Who can participate

- a. The Participating team can have maximum of Eight People out of which minimum 3 should be Second Year and atleast one Fresher.
- b. The Core Team Members of the Coding Club and WhiteSpace (Third Year and current POR Holders) cannot participate in this PS.
- c. Only one team is allowed to participate from each hostel.

2. Penalties

- a. For any violations of rules, 50% of marks of this PS (i.e. 200 pts) will be subtracted from total points of the Hostel.
- b. Penalty for late submission will be as follows:
 - i. For every minute of late submission, 1% of points will be deducted for each minute for the first 15 minutes.
 - ii. 20% of the points will be deducted if submission is between 15 to 30 minutes.
 - iii. 50% of the marks will be deducted if submission is between 30 to 45 minutes.
 - iv. 75% of the marks will be deducted if submission is between 45 to 50 minutes.
 - v. After 60 minutes there will be no submission.