



Centre For Innovation
Office of Dean Students
IIT Madras
Chennai - 600 036



APPLICATION 24-25

FOR THE POST OF COORDINATOR

WEBOPS & BLOCKCHAIN CLUB

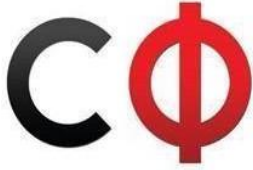
Centre for Innovation (CFI)

Indian Institute of Technology Madras

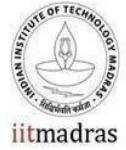
"I could either watch it happen or be a part of it"

Elon Musk

Name:	Nick:
Roll No:	E-Mail:
Phone:	CGPA:



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GENERAL INSTRUCTIONS

- Keep your answers concise and crisp. Do not write long paragraphs. Write answers in bullet points, and detailed to the point
- The number of ideas does not matter if not validated properly. Each idea should be thoroughly thought through before being included in the application. We don't want perfect answers, rather want to check your dedication level via this application.
- Presentation is everything. Or at least something.
- For the ideas/events suggested, a rough timeline will be appreciated
- In case of any queries or concerns, feel free to reach out to:
Purushottam: 7028759701 (ee22bo73@smail.iitm.ac.in)
Abhishek: 7744876088 (ce22bo53@smail.iitm.ac.in)
Girinath: 8754893068 (ee22bo61@smail.iitm.ac.in)
- The completed application (saved as <Your Name><Roll no>WebOpsBlockchain_Coordinator_2024) must be submitted in PDF format via mail to cfiwebops@smail.iitm.ac.in
- **Deadline for submission:** 11:59 PM, 01.05.2024

All the best!!



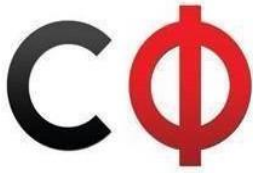
QUESTIONNAIRE

ABOUT YOU

1. Why do you want to become a Coordinator for the club and what is your motivation and expectation for applying? Mention your strengths, previous experience (if any) and weaknesses.
2. What do you expect from the role of coordinator the coming year? What other commitments do you have next year?

ABOUT WEBOPS AND BLOCKCHAIN

1. What activities and initiatives do you plan to take up this year to increase the outreach of the club, inside and outside insti? Ideate a few **new** initiatives and activities. State how we can improve the number of participants or footfall for the same.
2. What will be your responsibilities as a club coordinator towards the club? How is CFI Webops and Blockchain club different from other Webops teams in insti?
3. How familiar are you with Web development and/or Blockchain Technology? Any prior experience? If yes, mention the necessary details.
4. Which club project do you want to be a part of? What would be your approach to solve that problem statement? What are all the challenges that we might face? How would you like to see the project at the end of your tenure?
5. As a developers club, we participate in hackathons, competitions etc. Find at least 10 hackathons and competitions (related to web dev or blockchain mostly) that we could have taken part in last year or can take part in next year. Hackathons and Competitions should be either online or in south India or should have a big prize pool to just travel.
6. What all events are you planning to conduct this year? Explain how you will conduct them. Give a brief timeline of all the events that you are planning to conduct.

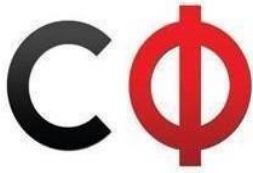


7. How do you think a coordinator is different from a project member?

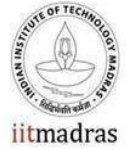
Questions Specific to Technical Coords:

1. Use this [https://archive-api.open-meteo.com/v1/archive?latitude=52.52&longitude=13.41&start_date=2023-04-10&end_date=2023-04-15&daily=temperature_2m_max&timezone=G](https://archive-api.open-meteo.com/v1/archive?latitude=52.52&longitude=13.41&start_date=2023-04-10&end_date=2023-04-15&daily=temperature_2m_max&timezone=GMT)MT . Fetch data from this API, create a dropdown with dates to be chosen and display the related temperature to that day. (Brownie points for beautiful UI). You are free to choose how you want to display the data. The UI has to be responsive.
(Brownie points for an interactive UI. Come up with something innovative and attractive) (Hint: use map function)
2. Create a captivating Tic-Tac-Toe game using HTML, CSS, and JavaScript. Before the game begins, personalize your experience by entering players' names. Delve into a series of competitive games, each contributing to an ongoing score that updates dynamically after every round. At any moment, players can choose to discard the current series, resetting the scores and starting anew, keeping the gameplay fresh and engaging. (**Bonus Question**)
3. What is a consensus mechanism in the context of blockchain technology? Could you elaborate on the shift from traditional Proof of Work (PoW) consensus to newer models like Proof of Stake (PoS) and Delegated Proof of Stake (DPoS)? Discuss the motivations behind this transition and analyze the potential benefits and drawbacks of these alternative consensus mechanisms in terms of scalability, energy efficiency, and decentralization.
4. Smart Contract Development :
You are tasked with creating a Solidity smart contract for a ticket sale, incorporating the following functionalities:
 - i) Users should be able to buy tickets by sending ETH to the contract.
 - ii) The contract must track the ticket balance of each user based on their contributions.
 - iii) The ticket price and quantity should be fixed according to the admin's wish(one who deploys the contract).
 - iv) Only the admin should have the ability to withdraw ETH from the contract.
 - v) Users should be able to buy tickets only when the sale is active (whether the sale is active or not should only be set by admin).

Include functions for buying tickets, checking ticket balances, and withdrawing Ether.
Brownie points for additional features.



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Questions to UI/UX Coords:

1. What are the key principles of user interface design? How can you use animations and microinteractions to enhance the user experience?
2. Analyze the current UI/UX trends that are prevalent in industry and list down some of the trends. List at least five trends.-
3. Ideate on any project that our club is taking in upcoming tenure. Use figma to design the basic pages of that particular website or application. Share your figma design link, also attach any other prior UI design experience that you have worked on.
4. Use HTML & CSS to design any one of the pages that you have designed. Push the code to github and share the github link or you can upload the files on the drive. Github will be more preferred.

THANK YOU