

Rulebook

HackwithMAIT 5.0

24th - 26th October, 2024

Innovative Tracks:

1. Communication networking
2. Healthcare
3. EdTech
4. FinTech
5. Web3
6. Open Innovation
7. Mobile and Wireless Networks
8. IoT
9. Network Management and Monitoring
10. Quality of Service (QoS)

Sponsored Tracks:

1. Aptos
2. Polygon
3. ETHIndia : ETHEREUM
4. Afreebug: Crypto Mining
5. Orkes
6. Tezos

Organised By:

Maharaja Agrasen Institute of Technology
Department of Computer Science and Engineering

General Rules

1. HackwithMAIT 5.0 is scheduled on 24-26, October, 2024.
2. The responsibility of the components and the materials required for developing the prototype during the Hackathon lies solely on the participating teams.
3. The entire idea need not be fully implemented however, the submission should be functional so that it can be reviewed by the judges.
4. Entire team members should be present at the time of each qualifying round of the Hackathon.
5. All the participants have to reach the venue 15 min before the reporting time.
6. Its mandatory for each participant to carry College ID card for the hackathon.
7. Teams can use libraries, frameworks, or open-source code in their projects.
8. The developer/developers of the solution will have all rights and own the IP of the product. However, all code needs to be in public domain (open source) so that it can be evaluated by the judges.
9. Internet will be provided, but it's a good idea for participants to bring their own dongles and data cards in case of technical issues.
10. Each round will be an eliminatory round in HackwithMAIT 5.0.
11. Teams can be disqualified from the competition at the organizers' discretion. Reasons might include but are not limited to breaking the Competition Rules, breaking the Code of Conduct, or other unsporting behavior.
12. Your code repository must be initialized at the beginning of Hackathon itself.
13. You can use resources such as Stack Overflow and GitHub.
14. In general, internet resources are allowed. However, direct plagiarism of ideas/code is not allowed.
15. There is no restriction on the programming languages and platforms used to develop the product.
16. The final round of HackwithMAIT 5.0 will be held at Microsoft, Gurugram on 26th October 2024

NOTE: There are no accommodations or transportation provided for students or mentors

Registration Rules

Team Formation:

1. Each team would comprise of 2-4 members including 1 team leader.
2. All team members should be from same institute (multidisciplinary team members from same institute are allowed). Make sure you have the valid Id-card for reference.
3. No team member is allowed to register under more than one team failing which, all the associated teams can be disqualified

Registration Platform:

1. Registrations for HackwithMAIT 5.0 will only be considered valid when submitted through Devfolio. We do not accept registrations through any other platform or method.
2. All members of the team must create their profile and register under [HackwithMAIT 5.0 through the following link:](https://hackwithmait5.devfolio.co/)
<https://hackwithmait5.devfolio.co/>
3. Teams can register under multiple tracks but they will be allowed to submit only 1 project. If their projects fulfils all the criteria mentioned under that track, then they will be eligible for winning prize under that track.
4. Teams at later stages can be asked to choose between either innovation or sponsorship track for eligibility of respective prizes
5. Last date of Team Registration is 10th October, 2024.

Idea Submission:

1. The idea submission ends on 15th October, 2024.
2. The team must be registered in order to submit the idea.
3. The abstract of the idea should be submitted on the form provided along with all the mandatory details.
4. Teams who have not registered or not submitted the idea will be automatically disqualified.
5. Already implemented ideas can be used but extra points will be given to original and innovative ideas.

Judgement Rules

Shortlisting of Teams and Ideas:

1. Teams will be shortlisted for the Hackathon based on the abstract of the idea submitted at the time of submission.
2. All shortlisted teams will be informed by the HackwithMAIT 5.0 team through registered email ID/ whatsapp number of respective Team Leader by 23rd October 2024.

Judgement Criteria:

1. Innovation and Uniqueness
2. Importance of the problem solved
3. Practicality of the proposal
4. Presentation Skills
5. Quality of the product
6. Percentage of original proposal developed
7. Scalability
8. Communication

Based on these evaluation criteria, the team with maximum marks will be the winner.

Judging:

Eligible Submissions will be evaluated by a panel of judges selected by the HackwithMAIT 5.0 co-ordinating team. Judges may be faculty from MAIT or external, may or may not be listed individually on the Hackathon Website, and may change before or during the Judging Period. Judging may take place in one or more rounds with one or more panels of Judges, at the discretion of the HackwithMAIT 5.0 organising team.

NOTE:

For the tracks sponsored by companies, it is important to note that they may or may not adhere to the rules and specifications outlined in the official rule book. Any deviations from the standard rules will be clearly communicated and clarified to participants before the commencement of the competition

Prizes and Problem Statements

Prizes:

1.Sponsored Track Prizes:

- 1.Aptos: \$250
- 2.Polygon: \$200
- 3.ETHIndia: ETHEREUM: \$100
- 4.Afreebug: Crypto Mining: Rs. 50,000
- 5.Orkes: Student developer kit
- 6.Tezos: \$500

2.Innovative Track Prizes:

- a.1st Prize: ₹15,000
- b.2nd Prize: ₹11,000
- c.3rd Prize: ₹9,000
- d. MAIT Silver Jubilee Open Challenge: ₹15,000

Many more consolation prizes including vouchers and goodies.

NOTE:

1. The prizes for tracks sponsored by the company will be awarded solely at the discretion of the sponsoring company, based on their evaluation of whether the participants have met their specific requirements. It's important to note that in certain instances, the sponsoring company may choose not to declare any winners
2. At the time of idea submission, team leader will be asked to choose between either innovative or sponsored track and hence they will be eligible for prize in only 1 of them

MAIT Silver Jubilee Open Challenge

AI-Powered Attendance Management System

Problem Overview: In educational institutions, managing student attendance efficiently is a significant challenge, especially with large class sizes. Manual attendance systems are time-consuming, prone to human errors, and lack real-time analytics. To solve this, you are tasked with developing an AI-powered Attendance Management System that automates the process using facial recognition, providing a seamless experience for both students and faculty.

Key Features:

1. Student Registration with Facial Recognition:

- a. Each student must register on the platform by capturing their facial features via the app or web interface.
- b. The system should securely store the student's facial data and associate it with their unique ID, name, and other necessary details.

2. Automated Attendance via Photo Upload:

- a. Faculty can upload multiple classroom photos to the system for attendance purposes.
- b. The system automatically recognises and identifies the students in the photos by matching their faces with the registered database.
- c. The attendance of recognised students will be automatically marked, while unrecognised or unclear entries will be flagged for review.

3. Attendance Review and Editing:

- a. Faculty members can review the generated attendance list.
- b. They should be able to edit, add, or remove students from the list as needed.
- c. Once satisfied, the faculty can finalize and verify the attendance for the session.

4. Report Generation:

- a. The system should provide multiple reports, such as:
 - i. Daily, weekly, and monthly attendance summaries for individual students and classes.
 - ii. Reports on students with low attendance or irregular patterns.
 - iii. Class-wise or course-wise attendance trends for faculty.

Technical Requirements:

- a. **Facial Recognition:** Use AI/ML models for accurate student identification.
- b. **Database Management:** Securely store student details and attendance records.
- c. **Report Generation:** Implement real-time analytics and reporting functionality.
- d. **User Interface:** Develop an intuitive user interface for both students and faculty, ensuring ease of registration, attendance upload, and report access.

Bonus Points:

- a. Implement a notification system that informs students and faculty of their attendance status.
- b. Add support for multi-class and multi-faculty scenarios, ensuring the system is scalable for large institutions.

Deliverables:

- A fully functional app or web platform that performs student registration, automated attendance via photo uploads, and report generation.
- A demo showcasing the workflow from student registration to attendance verification and report generation.

Legal Agreement Clause:

- **Transfer of Rights:**

- All participants and teams are required to sign a formal agreement before any prize is awarded. This agreement will ensure the full transfer of rights to the developed software, including but not limited to copyright, software intellectual property (IP), and all related proprietary rights, to the organizing committee or the designated institution.

- **Originality and Ownership:**

- The participating teams hereby declare and warrant that the software developed during the competition:
 - Is the original work of the team members.
 - Has not been previously sold, licensed, transferred, or assigned to any other individual, organization, or entity, nor will it be in the future without the express permission of the organizing committee.
 - Does not infringe upon the intellectual property rights of any third party, including but not limited to patents, copyrights, trademarks, or trade secrets.

- **Exclusivity:**

- The software must be exclusively developed for this competition and has not been and will not be submitted to any other competition, organization, or institution without the express written consent of the organizing committee.

- **Compliance with Indian Law:**

- This agreement will be governed and construed in accordance with the laws of India, including the Indian Copyright Act, 1957, and the Information Technology Act, 2000.
- Any disputes arising out of or in connection with this agreement shall be subject to the exclusive jurisdiction of the courts of NCR and Delhi.

- **Confidentiality and Non-Disclosure:**

- The teams agree not to disclose any confidential or proprietary information related to the software, the competition, or any associated stakeholders, except with the prior written consent of the organizing committee.

- **Prizes Conditional on Agreement:**

- Prizes will only be awarded upon the signing and full acceptance of this agreement by the team members. Failure to comply with these terms will result in disqualification, and the prize will be awarded to the next eligible team.

Aptos

What to build? Whatever you want anon.

At Aptos, our current focus is on products related to DeFi, AI, DePIN, RWAs, social, and consumer products. Most importantly, we highly encourage innovation in upcoming projects. Increase your chances of success by developing products yet to be present in the ecosystem.

1. Check the [registry](#) for project ideas we would love to see developed
2. Take a look at the [existing projects within the Aptos Ecosystem](#) for inspiration.
3. Utilize Aptos [keyless accounts](#) to create consumer products.
4. Incorporate [Aptos randomness API](#) to develop fair games and apps that rely on a random function.

Criteria for Projects:

1. The project code needs to be open source on GitHub.
2. Participants must submit the project by adding project to the [Aptos.toml file](#) or fill up the Typeform - [TypeformAptos GitHub Repos](#).
3. Tag [@aptos](#) and [@aptos_ind](#) with your project overview and Github for increased consideration for bounties.

How to get started? :

1. Check out this [quick start guide](#) for developers!
2. Build your first [Move Module](#)
3. [Build your first NFT Module](#)
4. [Spin up a NFT E2E dapp \(frontend inclusive\) using our typescript npm template create-aptos-dapp](#)

Additional Learning Resources:

1. [Aptos Learn](#) - Tailored guides across Aptos keyless, NFT & Token standard and even simple DeFi applications
2. [MoveSpiders](#) - Master Move programming through interactive courses
3. [Rise In](#) - Kickstart token development on Aptos
4. [Metaschool](#) - Build your own dapp on Aptos

Coming from Another Ecosystem?

1. [Ethereum/EVM to Aptos Cheatsheet](#)
2. [Solana/SVM to Aptos Cheatsheet](#)

Got stuck and want to ask some Move/Aptos-related questions?

The best way is to ask in or our [developer-discussions on GitHub](#)

Ohh and we also have this super exclusive invite-only community for serious builders in India ⚡ apply to join MOVE CLUB → [here](#)

For more information visit: <https://hackwithmait5.devfolio.co/>

Polygon

What is Polygon?

Polygon believes in Web3 for all. Polygon is a decentralised Ethereum scaling platform that enables developers to build scalable user-friendly dApps with low transaction fees without ever sacrificing on security.

Devfolio 🤝 Polygon

As part of Devfolio's University Season Program, Polygon sponsors all Devfolio Community Hackathons with bounties and microgrants!

Earn \$\$ as Prizes @ Devfolio Community Hackathons

- \$200 for the best hack built on Polygon,
- Eligibility to apply for internship/full-time roles and seed funding of up to 5,000 USD for winners! Learn more about the Polygon Track Prize [here](#).

Submission Guidelines:

- **Submit the GitHub link of your publicly visible source code** of the hack on Devfolio. Submissions with broken links will be marked ineligible for prizes.
- There must be **clear description about the working of the hack** in the README file. If the hack is live and can be tested, add the relevant links to that in the README file as well.
- Create a **short video demo** of the hack and upload to YouTube or any video sharing site. Make sure that the person watching the video is fully able to understand what the bot does and what its functionalities are. Share the link on your Devfolio Submission.
- Make sure you've mentioned **Polygon** in the **Technologies Used** section and selected the appropriate track while submitting the project.

Getting Started

It sure can be overwhelming to start with a new technology. Keeping that in mind, we have added a few code snippets to get you started.

We've added a few contracts in **/examples** with some context to teach you how to write contracts in Solidity.

You can also Fork this repl and get creative! You can also run the Repl to deploy your own contract using Test MATIC on Polygon Mumbai Testnet.

Judging Criteria

The judging will be done by the Polygon team on basis of submissions based on Devfolio, post the hackathon. Awarding the prize will be at the discretion of the Polygon team and subject to the hacks meeting a minimum bar of quality. Prizes will be announced and disbursed within a couple of days after the hackathon. Amount will be paid out in stablecoin in case of recipient not having an Indian bank account.

Resources

<https://www.notion.so/Welcome-Hackers-bf2d6a097e834170a72b6b4d75913516>

Mentoring

Polygon related doubts can be asked on the Discord Channel here -

<https://discord.gg/Pk4DgJr8H3>

For more information: <https://hackwithmait5.devfolio.co/>

Ethereum - ETHIndia

ETHIndia is empowering the Ethereum Community through its various initiatives including hackathons, fellowships, grants, and more!

Prize: \$100

Ethereum Track

Select this track if you're building on Ethereum to be eligible for the prizes!

For more information: <https://hackwithmait5.devfolio.co/>

Crypto Mining - Afreebug

AIM:

The objective of this project is to develop a robust and efficient mobile application for mining Monero (XMR) cryptocurrency using Android smartphones. Monero is a privacy-focused cryptocurrency that employs the CryptoNight proof-of-work algorithm, making it suitable for CPU mining. This project aims to address the following challenges and requirements:

NOTE:

This problem statement's solution has to be developed using technologies mentioned in the problem statement provided below.

PROBLEM STATEMENT:

<https://drive.google.com/file/d/1TtUNjPLLmEI0OyINnap9lHGGRJbmoejPD/view>

Customising XMRig Source Code Document:

<https://drive.google.com/file/d/1E6Zuu5nQiMgdsVu8qbuiVt2xqJXMqtoh/view?usp=sharing>

GENERAL RULES :

1. Prototype has to be provided on the date of HackwithMAIT 5.0 i.e. 24-26 October. A tentative submission date is being asked in the form whose further details are mentioned in its description
2. Solution will be judged by the sponsoring company itself and the prize will be awarded if their requirements are met
3. Even if the prototype is not ready but the company finds that the project is on the right track, it can extend the time for its development.

Orkes

To be eligible for exclusive gifts, build your project using Conductor at play.orkes.io.

Submit your project with the following details:

- **Workflow Description:** Explain the problem your workflow solves.
- **Workflow Link:** Provide the link to your workflow in the Playground (<https://play.orkes.io/>).
- Ensure your workflow includes at least 3 tasks, with a minimum of 1 operator task and 1 system task.
- Include a screenshot of a successful execution along with the execution link.

Tezos

Welcome to the Hack with MAIT 5.0 Sponsored Blockchain Track, proudly presented by Tezos! Get ready to unleash your creativity, innovation, and coding prowess as you dive into the exciting world of blockchain technology. With a total prize pool of \$500, this is your chance to shine and make a lasting impact.

Track Details:

- Company Sponsor: Tezos
- Total Prize Pool: \$500

Prizes:

- First Place: \$150
- Second Place: \$100
- Third Place: \$50

But that's not all! We appreciate your hard work and dedication. Even if you don't make

it to the top 3, you can still win:

Rest \$200 : This \$200 prize pool is for projects that have implemented tezos or etherlink blockchain but couldn't make it to Top 3.

This will be divided among all projects that have Tezos implementation but can't make it to the top 3 projects list made on Tezos.

Max Prize a team can avail out of \$200 Prize pool is \$40 per team.

NOTE: The projects will be judged on the basis of idea, uniqueness, implementation, presentation, demo.

Project Requirements:

- Your project must be developed using the Tezos platform. Tezos is a cutting-edge blockchain platform known for its innovation and flexibility, so let your imagination run wild!
- Projects that are built with valid implementation of Tezos or Tezos related SDK or library, or EVM Projects deployer on ETHERLINK will only be considered. The ideas and implementations should be unique and shall not be copy of any already existing project available online for becoming eligible for the Track Prizes.

Why Tezos?

Tezos is a powerful, self-amending blockchain platform that allows you to build decentralized applications (DApps) and smart contracts with ease. Its unique governance mechanism and focus on security make it an ideal choice for blockchain

enthusiasts and developers looking to create innovative solutions

Terms and Conditions

Projects that are built with valid implementation of Tezos or tezos related sdk or library ,or EVM projects deployed on ETHERLINK will only be considered for this category.

The ideas and implementations should be unique and shall not be copy of any already existing project available online for becoming eligible for the Track Prizes.

After the hackathon ends, The organising team will share the list of projects that claim to be made or have integrated / implemented tezos in their project.

Tezos India team will go through these projects and Verify it.

Tezos India team will share the list of winners accordingly after judging the projects on Idea, uniqueness, implementation, presentation, demo.

Tezos India team's decision will be final for selecting the winners, if any based on above parameters.

All prizes will be directly sent to winners after confirmation.

Terms and Conditions

Verification of Potential Winners :

The award of a prize to a potential winner is subject to verification of the identity, qualifications, and role of the potential winner in the creation of the submission

Privacy:

- By participating in the HackwithMAIT 5.0 you consent to the use of personal information about you, by the Poster, Administrator, and Third Parties acting on their behalf. Such personal information includes, but is not limited to, your name, likeness, photograph, voice, opinions, comments and hometown and country of residence. It may be used in any existing or newly created media, worldwide without further payment or consideration or right of review, unless prohibited by law. Authorized use includes advertising and promotional purposes.
- The duration of your consent is for a period of one year following the conclusion of the Hackathon and during further editions of the same. This consent applies, as applicable, to all members of a Team that participated in HackwithMAIT 5.0.

General Conditions:

- Administrator reserve the right, in their sole discretion, to cancel, suspend and/or modify the Hackathon, or any part of it, in the event of a technical failure, fraud, or any other factor or event that was not anticipated or is not within their control.
- Administrator reserve the right in their sole discretion to disqualify any individual or Maker it finds to be actually or presenting the appearance of tampering with the entry process or the operation of the Hackathon or to be acting in violation of these Official Rules or in a manner that is inappropriate, unsportsmanlike, not in the best interests of this Hackathon, or a violation of any applicable law or regulation.

- If there is any discrepancy or inconsistency between the terms and conditions of the Official Rules and disclosures or other statements contained in any Hackathon materials, including but not limited to the Hackathon Submission form, Hackathon Website, advertising (including but not limited to television, print, radio or online ads), the terms and conditions of the Official Rules shall prevail.
- The terms and conditions of the Official Rules are subject to change at any time, including the rights or obligations of the Maker, and the Administrator will post the terms and conditions of the amended Official Rules on the Hackathon Website. To the fullest extent permitted by law, any amendment will become effective at the time specified in the posting of the amended Official Rules or, if no time is specified, the time of posting.
- If at any time prior to the deadline, a Maker or prospective Maker believes that any Official Rule is or may be unclear or ambiguous, they must submit a written request for clarification.
- The Administrator's failure to enforce any term of these Official Rules shall not constitute a waiver of that provision. Should any provision of these Official Rules be or become illegal or unenforceable in any jurisdiction whose laws or regulations may apply to a Maker, such illegality or unenforceability shall leave the remainder of these Official Rules, including the Rule affected, to the fullest extent permitted by law, unaffected and valid.

For additional queries

Email Address: techcom@mait.ac.in

Ansh Goyal: +91 95828 21205

Manya: +91 96505 36807

Ishi Gupta: +91 88104 14881

Himanshi Jain: +91 89291 11955