



HACKATHON



32% Brainstorming



32% Coding

RULEBOOK



1% Rest



23% Ice cream
Sandwiches



7% Rant





HACKATHON



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WHAT IS A HACKATHON ?

A hackathon is an exciting, fast-paced event where creativity meets innovation! It's a gathering of developers, designers, entrepreneurs, and problem-solvers who collaborate to build something amazing in a limited timeframe.

It's not just about coding – it's about turning ideas into reality. Whether you're a seasoned pro or a curious beginner, hackathons are all about teamwork, learning, and creating something you're proud of. Dive in, and let your imagination lead the way!



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BitFest 2025

AI & API Hackathon

We are thrilled to announce an exclusive AI & API Hackathon, a dynamic 24-hours onsite event that will put your creativity and problem-solving skills to the test!

Participants will form diverse teams, blending skills to tackle AI and API development challenges. The problem statement will be revealed at the event's start, ensuring fairness. Mentors and problem setters will provide guidance throughout the event.

University students nationwide, regardless of experience, are encouraged to join. Beginners can attend workshops on essential AI and API concepts to get started.

If you're passionate about technology and innovation, this is your chance to collaborate, learn, and create!



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General Rules

Participation Guidelines

- ☐ Teams can consist of 1-3 participants.
- ☐ 1st round will be held online
- ☐ All participants must be physically present at the venue on the Onsite Hackathon Day.
- ☐ Team members can be from different universities.

Facilities Provided

- ☐ Participants are requested to bring their laptops, chargers, multiplugs, and any other necessary devices.
- ☐ Internet facilities will be provided; however, it is recommended to have mobile data as a backup due to possible infrastructural issues.
- ☐ Food, security, and accommodation will be arranged for the overnight stay.

Project Rules

- ❑ Participants are required to create a new GitHub repository at the start of the hackathon and share it with the judges. Regular commits will be tracked throughout the event to ensure transparency & progress.
- ❑ Projects must be developed on the day of the Hackathon.
- ❑ Pre-developed projects or projects that are even partially completed in advance will not be accepted.
- ❑ Any form of unfair activity, misbehavior, or rule violations will result in immediate disqualification.
- ❑ The organizers reserve the right to make final decisions and will notify participants of any significant rule modifications.



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AI & API Hackathon *Online Preliminary*

The Hackathon team, alongside experienced industry professionals, will conduct an initial screening process to shortlist participants for the onsite Hackathon. Selected participants will be notified and invited to proceed to the onsite event.

For our Hackathon, this may include

- ❑ **API Development Tasks:** Building an API server to perform a specific task or modifying an existing backend server.
- ❑ **AI Development Tasks:** Fine-tuning a model or building an AI pipeline using frameworks like LangChain, LlamaIndex, or similar tools.

This approach ensures participants are well-prepared and align with the event's technical focus.

Time & Team Formation Strategy

- ❑ **Time Limit:** Adjusted according to the problem set.
- ❑ **Team Structure:** Teams of 3 members, with a balanced understanding of both API development and AI concepts, are recommended.



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AI & API Hackathon *Onsite Final*

Participants will utilize public APIs or their own custom-developed AI models to implement tasks such as Speech-to-Text, Translation, OCR, or Natural Language Processing (NLP). Creativity in integrating AI is highly encouraged, whether by leveraging APIs from popular platforms or by building and deploying custom AI models.

Additional tasks may include

- ☐ Fine-tuning or training a model to improve its performance.
- ☐ Developing AI pipelines or AI Agents.

Participants may also need to implement core functionalities such as Authentication, CRUD operations, and Data management using relevant APIs/SDKs to enhance the functionality and scalability of their applications. Extra points will be awarded for innovative solutions that meet the problem requirements while demonstrating efficient and creative AI integration.



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AI & API Hackathon *An Example*

Scenario

Imagine a platform where students and teachers can collaboratively manage and share study materials. A student uploads class notes, and the system automatically organizes them, generates quizzes, and facilitates AI-driven discussions. Teachers have a dedicated portal to review and validate content, while students can interact with their peers and the notes to enhance learning.

Tasks

- **Authentication & Role-Based Access Control**
 - Implement separate authentication systems for students and teachers.
 - Ensure teachers have additional permissions to approve, edit, or annotate uploaded notes.
- **Class Note Sharing**
 - Allow students to upload notes (PDFs or images).
 - Use OCR technology (e.g., Google Cloud Vision, Tesseract) to extract text from these files, enabling searchable and organized content.
- **AI-Driven Quiz Generation**
 - Use AI tools like OpenAI, Gemini or Hugging Face to generate quizzes based on uploaded class notes.
 - Questions should align with the difficulty level of the content and the user's role (student or teacher).

- Chat with Class Notes
 - Develop a chatbot feature where users can query uploaded notes.
 - Use AI language models to provide relevant answers based on the content.
- AI-Based Matchmaking for Study Groups
 - Implement an AI algorithm to match students with similar interests or challenges for collaborative study sessions.
 - Use clustering or recommendation techniques to group students dynamically.
- APIs and Custom Models
 - Participants can use APIs like OpenAI, Gemini, Groq, Anthropic etc. & Frameworks/Libraries like LangChain, or LlamaIndex etc. for quiz generation, chatbot interaction, or note organization.
 - They can also use local model or develop custom models for matchmaking, note summarization, or content validation.

Bonus Points

- ❑ Creativity in designing a seamless user experience for both students and teachers.
- ❑ Efficient integration of AI and APIs to enhance study collaboration and resource management.

(The tools and examples mentioned are just suggestions. Participants are encouraged to explore a wide range of APIs and frameworks to implement their solutions!)



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Contacts

Event Link – [Hackathon | BitFest 2025](#)

Facebook Page – [BitFest](#)

If you have any questions, feel free to message the page.

Stay tuned to the Facebook event page for the latest updates on the Hackathon.