

RULEBOOK v 1.0

HACKATHON | BUET CSE FEST 2026

WHAT IS A HACKATHON?

A hackathon is a focused, time-limited innovation event where participants work in teams to design and build a software solution from scratch.

Within a limited timeframe, teams turn ideas into functional prototypes by applying technical skills, creativity, and problem-solving.

Hackathons are designed to unite people from diverse backgrounds such as software development, system design, and user experience. The objective is not only to produce working softwares but also to demonstrate teamwork, originality, and effective solutions.

At the conclusion of the event, teams present their solutions to a panel of judges for evaluation.

BUET CSE FEST 2026 HACKATHON

The BUET CSE Fest 2026 Hackathon will be conducted as a **day-long onsite event**, lasting **10 hours** in total.

During this time, participating teams will engage in an intensive development sprint based on a problem statement provided at the beginning of the event.

The hackathon will consist of two segments:

- **AI & API**
- **Microservice & DevOps**

Teams must be physically present at the venue throughout the final day of the event.

Participants are encouraged to form teams with complementary skill sets relevant to their chosen segment.

Mentors and problem setters will be available onsite to assist teams during the hackathon.

The expected outcome is a working prototype; the solution does not need to be a fully completed or production-ready system. At the end of the sprint, teams will present their solutions to a panel of judges. Detailed judging criteria will be shared with participants on the day of the event.

Teams from eligible universities across Bangladesh are welcome to participate.

Beginners are encouraged to join, as the event will be designed to be both competitive and educational.

RULES & GUIDELINES

PARTICIPATION

Team Composition

- Each team must consist of **2–3 members**
- All participants must be **current undergraduate students**
- Participants who have attended their final undergrad exam and are waiting for results are eligible to participate
- Cross-university teams are allowed
- No participant may be a member of more than one team
- All participants must be **physically present at the venue** on the final day of the hackathon

Registration Fee

- Registration for the preliminary round is free for all teams.
- Selected teams advancing to the final (onsite) round will be required to pay a registration fee of **BDT 1,000**.
Upon selection, teams will be asked to complete onsite event registration by submitting the registration fee along with other required information.

Teams consisting only of undergrad students of Department of CSE, BUET will require no registration fees for any round. (All members must be from BUET CSE)

Institution Requirements

- Participating institutions must be registered under the **UGC**.
- Participation is limited to **Bangladeshi institutions only**.
- Colleges offering bachelor's degrees must be **affiliated with a UGC-approved university**.

Restrictions

- **No team member may be added, removed, or substituted** after the registration.

PROJECTS

- Participants must create a **new GitHub repository onsite** and submit it at the end of the competition.
- The project must be developed **entirely during the hackathon**. Any project developed fully or partially before the event will not be accepted.

*Any unfair attempts, misbehavior, or breach of rules will result in disqualification.
The organizers reserve the right to make final decisions.*

Participants will be notified in case of any significant modification to the existing rules.

EVENT SUMMARY

Event Timeline

Registration Deadline

11 pm, January 21, 2026

Mock Question Release

January 22, 2026

Time: 7:30 pm

Preliminary Round(online)

January 23, 2026

Time: 7:30 pm to 10:30 pm (3 hours)

Final Round(onsite)

January 29, 2026

(Detailed schedule will be announced before the final round)

Before the preliminary round, a mock question will be released for the participants.

Event Links

- Fill out the registration form here - [Registration Form Link](#)
- Facebook Event: FB Event
- For any queries, mail at - hackathon.buetcsefest2026@gmail.com

FACILITIES

- Food and refreshments will be provided for all participants.
- Participants are required to bring their own **laptops, chargers, multi-plugs, and any other necessary equipment.**

- Internet connectivity will be provided at the venue. However, due to possible infrastructural limitations, participants are advised to keep **mobile data as a backup**.

SEGMENTS

AI & API

In this segment, participants will build solutions that utilize **artificial intelligence techniques and API-based integrations**. Teams may use publicly available APIs, SDKs, or their own AI models to implement intelligent features such as text processing, speech recognition, translation, recommendation systems, or other data-driven capabilities.

Participants are encouraged to thoughtfully integrate AI components into their applications, focusing on efficiency, relevance, and system design. Creative and effective use of AI services or custom models that align well with the problem requirements will be rewarded.

MICROSERVICE & DEVOPS

This segment challenges participants to design applications using **modern microservice architectures and DevOps practices**. Teams are expected to decompose applications into modular services that can be independently developed, deployed, and scaled.

Participants should demonstrate an understanding of automated build, test, and deployment workflows using CI/CD pipelines. Emphasis will be placed on scalability, reliability, fault tolerance, and clean system architecture rather than feature quantity.

Prior experience with microservices or DevOps is not mandatory. Onsite mentors and guidance will be provided to support learning and experimentation.

HOW TO PARTICIPATE?

Registration

- Fill out the registration form.
- Each team must select a preferred segment (only one) during registration.

Selection

- The hackathon organizing team, along with industry professionals, will conduct an initial screening.
- Selected teams will be notified and invited to the onsite hackathon.
- Teams may be required to complete an additional questionnaire if the number of registrations exceeds venue capacity.

EXAMPLES

MICROSERVICE & DEVOPS: AN EXAMPLE

Scenario:

You are tasked with developing a modular registration system for a university. While the current system has limited features, you must design it in a way that allows seamless future expansion without disrupting existing functionalities. Additionally, the system should support continuous delivery and deployment, ensuring that new updates or bug fixes can be pushed to production without downtime, even while the system is live.

Example Tasks:

To meet the requirements, your team should –

- **Design a microservice-based architecture**
Decompose the system into independently deployable and scalable services (e.g., registration, course management, fee processing) with reliable inter-service communication.
- **Implement an end-to-end CI/CD pipeline**
Automate testing for all code changes and ensure seamless, zero-downtime deployment upon successful test execution.
- **Automate environment replication**
Ensure development and production environments remain identical through automated setup and configuration, enabling consistent debugging and issue resolution.
- **Enable scalability and fault tolerance**
Allow each microservice to scale independently and handle failures gracefully without impacting the overall system.
- **Integrate monitoring and logging**
Track system health, performance, and errors in real time to support proactive monitoring and efficient troubleshooting.

AI & API: AN EXAMPLE

Scenario:

Imagine you are reading a captivating book and, at some point, you wish to listen to a song that matches the mood of the text. You need an application that can analyze what you are reading, determine the sentiment or emotion, and then suggest a song that aligns with your mood.

The application should extract text from the document you are reading, analyze the sentiment, and provide music recommendations accordingly.

Example Tasks:

To meet the requirements, your team should –

- **Text Extraction:**

Capture an image of the document the user is reading and use Optical Character Recognition (OCR) technology to extract text from the image. APIs such as Google Cloud Vision or Tesseract OCR may be used.

- **Sentiment Analysis:**

Perform sentiment analysis on the extracted text to determine the overall mood or emotion. Participants may use AI-driven APIs such as Azure Cognitive Services, Hugging Face, or their own trained models to analyze the sentiment.

- **Music Recommendation:**

Based on the sentiment analysis, suggest a song that matches the detected mood. Music recommendation APIs such as Spotify, Last.fm, or YouTube Music may be used to fetch relevant content.

- **APIs and Custom Models:**

Participants may either use publicly available APIs or develop their own custom models for sentiment analysis or music recommendation. Additional points will be awarded for creativity and seamless integration of AI and API services in the final solution.

CONTACTS

For any queries, contact us via email at - hackathon.buetcsefest2026@gmail.com