



Finite Loop
Inspire the Rest

FLC HACKFEST

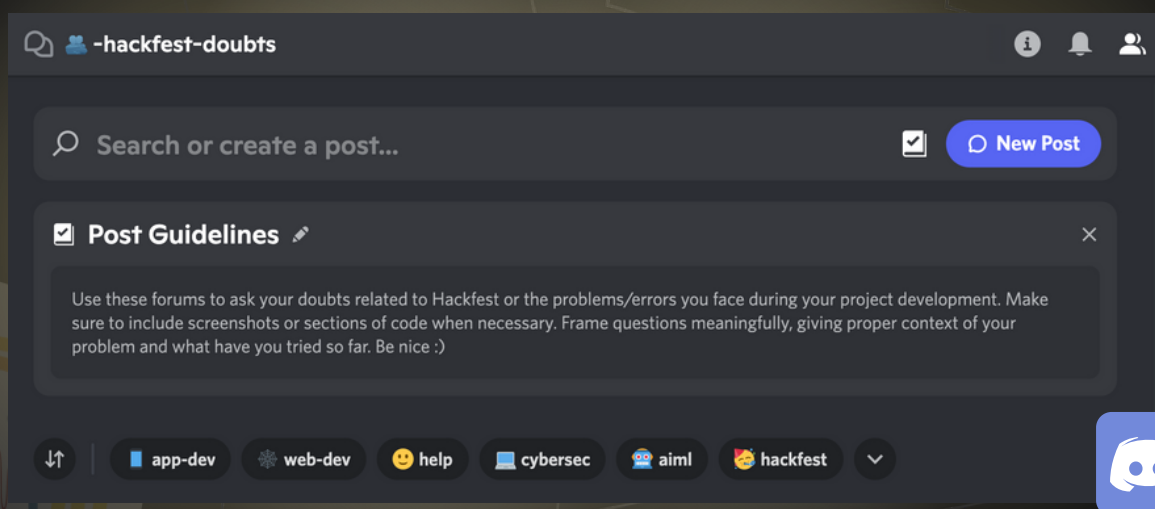
2022-23

What Is HACKATHON



The term "**hackathon**" is derived from the combination of the phrases "**hack**" and "**marathon**." In its most basic form, a hackathon is a **Collaborative problem-solving challenge**. The goal is to encourage innovation and showcase fresh ideas or solutions. Also, to prepare the club members for the **Final offline Hackfest** and other external hackathons.

Introducing Discord forum for all your **doubts & queries** related to FLC Hackfest.



Schedule



Phase 1

Kickstart

11-18th Nov

Set a place and day, **meet your teammates** and understand their qualities, strengths & weaknesses. **Shoot a candid video** of your discussion spanning 30 seconds introducing your teammates and how excited you are for your first hackathon. **Brainstorm and choose a team name & problem statement.** One of our core team members will join you during the meet. Once you are done with choosing a problem statement, **spend rest of your week in making a presentation** of your idea/solution to the problem and how you are going to implement it.

Note that **18th Nov** will be the last date to submit the video, team name and also the problem statement through a google form whose link will be shared on discord.



Ideathon

19th-20th Nov

Phase²

Teams need to **pitch in their ideas** which they have planned in the previous phase by presenting us on what they're planning to build. This can include the **features, planned UI, etc of their end product**. Must be shown to the assigned advisor by setting up a meet on any of the 2 days to get the feedbacks..

Phase³

Hackathon

21 Nov - 25 Dec

Team must **work on building the project** along with **learning the tech** simultaneously. Team is expected to **report the project progress** to the advisor every weekend called as '**Retro/Retrospection**' by setting up a meet to discuss what they have done so far, this is counted as 1 sprint. **4 such sprints** must happen in the month of December.



Sprint 1: 21-23 Nov & 1-3 Dec

Sprint 2: 5-10 Dec

Sprint 3: 12-17 Dec

Sprint 4: 19-23 Dec

Retro 1: 4th Dec

Retro 2: 11th Dec

Retro 3: 18th Dec

Retro 4: 24th or 25th Dec

**Note that there will be a break from
24 to 30 Nov for MSE-1**

Expo Prep

25th Dec onwards

Phase 4

Team is expected to **stop development**, and must focus on **preparing themselves for presenting** the project on Project expo. **No commits at this stage will be considered.** Ppt or any other valid ways can be used to present your project to the judges.

Phase 5

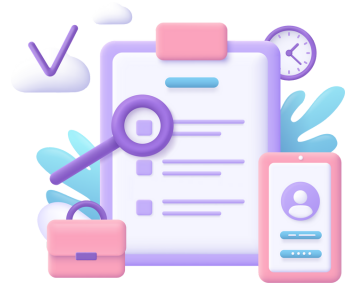
Project Expo

Final offline stage to **showcase your projects** at College to our judges. Winning team and Runner-up team will be announced on the same day. Each team member of Winning and Runner up team will be **awarded with exciting prizes.**

Expo Date of will be announced soon
after Hackfest completion



Rules



1. All members should have **Github commits**.
2. Team lead must **create a Github repository** and the team must collaborate there.
3. Hackfest is completely held in online mode, but teams can **feel free to hold offline meets** to work/discuss at college at their convenience.
4. Teammates & leads must discuss within themselves in case of any doubts. **Team leads can approach project advisors if it does not get resolved.** Teams can make use of #hackfest-doubts forum on Discord to ask/discuss the doubts with your peers.
5. Team must adhere to the deadlines given in the planned schedule.

6. **Collaboration** can be done either

- by the teammates forking the repo and **creating PRs** to the original repo.
- by the team lead who can **invite their teammates as collaborators**. [if the first option seems complicated]

7. You may incorporate pre-existing material that is freely available to the public into your project, such as public domain images, Creative Commons music, open-source libraries, existing APIs and platforms etc.

8. By participating in the hackathon, you acknowledge that the documents and code that you have submitted are not copyrighted by any other individual/organisation. **Even though taking inspiration is allowed, fully Plagiarised projects are strictly not encouraged.**

9. Team leads are allowed to request emails/phone numbers/discord usernames of their teammates to contact them



Problems statements



App Development

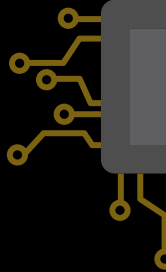
1) A News Application that would retrieve the news from a server via an API (Application Programming Interface). When a user clicks on a certain news item, their mobile browser opens. By including other APIs, you can expand this project to accommodate any imaginable use case.

2) The ideal choice is to apply for the exam online, as this makes the exam administration less stressful. Two modules will make up the project

Exam scheduling, notification circulation, and viewing, addition, and removal of all candidate accounts are all done through the admin module.

Creating or deleting accounts to take the exam is done in the candidate module. In this section, passwords can also be updated to further secure the account.

3) Build an android application that stores basic information about every FLC member in the database and that retrieves and displays the data of a member given his member id. Additional features can be added



Artificial Intelligence and Machine Learning

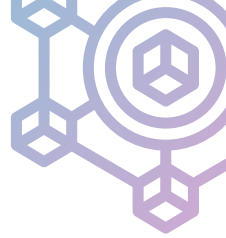
1) It's sometimes tedious for the Class Representatives/Class Guides to answer all messages sent by the students which are most of the time repetitive. Why not build a chatbot which would answer student queries?

2) Let's impress our lecturers! It's a tedious job for them to evaluate either our assignments or answer sheets and also check for plagiarism in the assignment. So, an AI-based system could assist them in evaluating plagiarism. Future scope: Evaluate the answers and assign marks.

3) Students in the university come from different environments. Every student has some strengths and weaknesses. Can you help the student in his overall development? Recommend or suggest methods/ways improve or work on his weaknesses. The input to the system can be the student's personal information, a background that he comes from, things in which he is good, etc. The recommendations should be in terms of improvements required in communication skills, writing skills, technical skills, way of presentation, etc.

4) Develop a recommendation system for the users of the library. The users should get personalized recommendations based on the information from previous readings. Information like reading patterns, authors, reading style, book read status, rating, similar interests/topics, etc. can be used as input to give recommendations.





Blockchain

1) The branch elections in college are usually carried out through moodle making it less transparent and centralized. Not just elections but any polling which happens in our class can sometimes favor a particular group. Develop a system that could solve these floating concerns, keeping the polls anonymous but transparent and must follow all the rules.

Further scope: the candidature and their skill verification system which validates their skill claim making the polling more transparent.

For instance, if someone declares themselves to be an expert in node.js and provides evidence, such as a link to their GitHub repository, other members in the same domain can verify their claim as endorsed or flagged based on the consensus



Cyber Security

1) Develop a Desktop/Web application with a friendly user interface that can scan open ports in a domain or an IP address. The application should be as simple as possible so that it can be configured even by a non-technical person. The main objective of the project must be to scan various ports within a specified range, with the help of which an administrator must easily be able to identify open ports and warn the clients.



Web Development [Full stack]

1) As of today, the admission process for the students is still application filling based, and any further tracking/updating of the student data is quite tedious for the administration. Hence a portal where the student can

- Signup and fill in their details along with uploading documents and submitting
- Request any changes/updates in details to the admin
- Apply for study certificate/ college leaving certificate to the admin
- Information of Scholarships/Fees Details (Paid | Amount to be paid)/Marksheet collected of the semester end examinations/SSLC | PUC marks card status (collected/ yet to collect) etc

2) There are so many events/activities/workshops/competitions happening in our college, no information regarding the same still fails to reach many students ending up in missed opportunities. An all-in-one platform,

- Where the students can get updates on any event details conducted by different student clubs
- Any active webinars/workshops/hackathons or any releases which are usually sent through mails/WhatsApp
- An admin panel for the college heads to post updates, and manager access to all the club heads to post regarding the events
- Fut.Scope: An integrated query forum regarding the events.



3) There is a need to develop solutions to track all activities of a student including academic progress in real-time. Often it is observed that students are also good at co-curricular activities. In the current situation, it is not possible for a lecturer to pay attention to every student. Hence a web portal

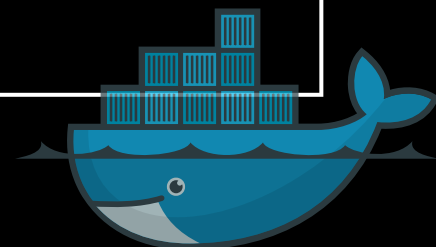
- that tracks the student's achievements in real-time by giving the students access to upload details with supporting documents, verified by the lecturers
- Allows lecturers to maintain the students' anecdotal record based on class behavior and presence
- Student's academic performance maintained in the same platform (portal).

4) Building your resume with correct formatting along with fitting all the information on one page is quite a tiresome job and students end up with incomplete resumes. To solve this, develop a Resume-builder

- which helps students to get their resume in hand just by filling up a simple form where important credentials need to be filled
- The resume is downloadable in PDF format. Also, the user can log in again to access the previous resume that he had made
- The resume is of Standard Format as stated by most of the Engineering Colleges of India

5) A job portal that would solve any of the existing problems in the already existing job portals.

- Fake Job posting.
- Lengthy registration for Job applications.
- Privacy issues.
- No feedback mechanism.



6) People find it difficult to buy online products because they have many options such as Amazon, Flipkart, Snapdeal, Meesho, etc. Narrowing this down to phones and Flipkart vs Amazon (to make it simple), they can develop an app that fetches the price and name of all these phones from 3rd party Flipkart & Amazon APIs (<https://rapidapi.com/search/amazon>) and shows it to the user.

7) Develop a web app that allows users to search for movies through the movie catalog built in it using one of the movie APIs (ex. OMDb). The website may contain a register and login page for the user to sign in. The movies on the website should be separated based on genres (ex. Bollywood, Hollywood, Anime,..). Sorting and filtering features will make the website easier to use by the user.

8) Getting connected with the senior students of the colleges is sometimes difficult. Develop a web app that allows students placed in tech companies to share their preparation strategy and their interview experience with their fellow juniors providing guidance.

9) Create a course tracker that keeps track of a lecture series. The system searches the internet for materials that complement the lecture topic, such as open-source projects, book references, and academic and/or professional papers. The teacher enters lecture notes and references at the conclusion of each lesson.

10) Make a database with sample test questions (either appearing in previous year papers or marked important by lecturers) for a certain class or course. For students getting ready for that course, it would be a terrific resource. It is best to showcase your team's abilities in the areas of data structure, algorithms, and design with an interface that is as engaging and user-friendly as possible.



Web Development-Frontend

1) Build a front end for the Pomodoro website in which users can set timers for task completion, short break, and long break. The user interface should have a dark mode and the timer grid should have glass morphism design style. Adding a circular progress bar can also be implemented.

2) Temperature Converter Website:


A website that takes input from the user in one of the three temperature scales namely celsius, kelvin, or Fahrenheit, and converts that to the other two. Can add more functionalities to the interface.

3) Build a quiz website with a timer. On the home page, users should be given a choice to choose between 3-5 categories of quizzes. Users should be able to toggle between dark and light modes on the website. Can add more functionalities to the interface.

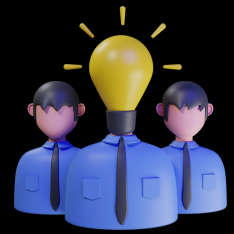
4) Design an interactive map of the university, including indoor maps that locate classrooms, laboratories, etc.

5) Design a Google sheets frontend clone with basic functions like a grid of editable cells, toolbar frontend and some other functions like status showing if the sheet is being edited, design improvements etc. Add your own set of creativity to the frontend.

6) Build a website for a company which offers services like Website building, App building, Social media management, Graphic designing for businesses. The website must contain atleast 5 pages with creative frontend which can attract businesses to buy the company's services.



Hackfest Teams



App Development

Team no.	Team Lead
1.	Nihar Shaji
2.	Abhishek
3.	Abhijith Hegde

Web Development (Frontend)

4.	Adithi Shenoy
5.	Anuj Pai
6.	Navaraj D Shetty
7.	Sourabh Shenoy
8.	Amarendra kumar singh
23.	Abdullah Anwar Assadi

Web Development (Full- Stack)

11.	Srivatsa a R Upadhya
9.	Pratham Gurudatt Shetty
12.	Pearl Menezes
13.	Nishchith G P
14.	Writvan Ghosh
15.	Srujan Acharya
16.	Satwik Prabhu
17.	Rohan M P
10.	Vandana Prabhu

Artificial Intelligence & Machine Learning

18.	Prathama S J
20.	Shashank B. N.
21.	Sinchana S.H.
22.	Mohammed Abid

Cyber security

24	Ashith K
----	----------

Blockchain

19.	Shivani Pai
-----	-------------

FLC Hackfest Teams:-

<https://bit.ly/3WH7NnY>

Dont scan me



Project Advisors



Anjuman & Padmashree

Team 1 & 2

Thejas & Akash

Team 3

Rahul Pai & Daivik Shetty

Team 4 & 5

Bhushan Nayak & Pavan A B

Team 6 & 7

Ashwini & Shruthi

Team 8 & 23

Nidheesha T & Prajwal Suvarna

Team 9 & 15

Vidyesh & Swasthik A Shetty

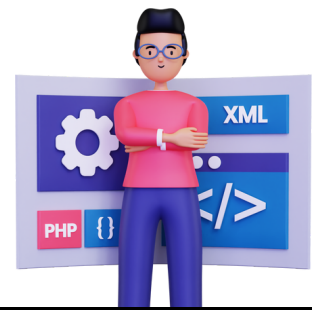
Team 10 & 16

Anjuman & Karthik

Team 11



Project Advisors



Vaishnavi & Vaishnavi Prasad

Team 12 & 17

Akash & Amogha

Team 14

Dhanish & Amogha

Team 13

Dhanish & Bhargavi

Team 18

Bhargavi & Karthik

Team 19

Swasthik & Nagaraj

Team 20 & 21

Abdeali & Akash

Team 24

Bhargavi, Bhoomika, Apoorva

Team 22



How do we judge?



- The **Features incorporated** in your project
- **Presentation** of your project during expo
- Bonus points if you bring in some **creativity**
(depends on Ideathon presentation)
- How much **progress** you have made in meeting the plan/prototype proposed during Ideathon.
- Your final **project presentation** and demonstration during the expo



What do we do when we face errors or have doubts?

- First **Google your problem**. You will definitely find the answers on Github issues/Stackoverflow or other online forums. Googling is one of the finest corporate skills you have to master.
- If you don't find it there, **Ask us at #hackfest-doubts** forum on discord server. Any of the community member good at your domain might have an answer for you. Describe the problem clearly & include screenshots (if necessary).
- If the doubt is very specific to your project and not to be dealt with public, **approach your project advisors** for help.





Team **FLC**

2022-2023

NMAM Institute of Technology, Nitte, SH1, Karkala,
Karnataka, KARKALA, NMAMIT 574110, IN

President

Bhargavi Nayak

Vice-President

Nagaraj Pandith

Staff in Charge

Mr. Shashank Shetty

Asst. Professor, Dept. of CSE

Mr. Puneeth R P

Asst. Professor, Dept. of CSE

Mentor

Mr. Krishnaprasad Rao

Cloud Engineer @Niveus



<https://www.finiteloop.co.in/>



The Finite Loop Nitte



The Finite Loop



finiteloop_club_nmamit



**NMAM INSTITUTE
OF TECHNOLOGY**