DESIGN THINKING & INNOVATION

LAB REPORT

****

**SubmittedBy**

**Mr. MUPPIDI TEJA VENKATA GANESH**

**Regd.Number:23B91A05J0**

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**S.R.K.R ENGINEERING COLLEGE(A)**

**(Affiliated to JNTU,KAKINADA)**

**BHIMAVARAM-534204 (2024-2025)**

**DEPARTMENTOF COMPUTERSCIENCEANDENGINEERING**

**S.R.K.RENGINEERINGCOLLEGE BHIMAVARAM**

**\*-**

***CERTIFICATE***

This is to certify that this is a Bonafide work on  **** for and has been submitted by Mr. MUPPIDI TEJA VENKATA GANESH (**23B91A05J0**) as a Design thinking laboratory report, in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science and Engineering, during the academic year 2024-2025. The candidate worked right under my Supervision and guidance.

**Lecturers In-Charge**

XXXXXXXXXXXXXX **Head of the Department**

Dr. BH.V.S. RAMA KRISHNAM RAJU

Assistant professor, Head of the Department,

Department of CSE, Department of CSE,

S.R.K.R. Engineering College, S.R.K.R. Engineering College,

\*Bhimavaram. Bhimavaram.

**ACKNOWLEDGEMENT**

I take immense pleasure in thanking **Dr. K. V. Murali Krishnam Raju,** beloved principal of S.R.K.R Engineering College, Bhimavaram, and **Dr. BH. V. S. Rama Krishnam Raju,** esteemed **Head of the Department** (C.S.E), for having permitted me to carry out this Design thinking & Innovation project work.

I wish to express my deep sense of gratitude especially to my project Guide**, Sri./Dr. XXXXXXXXX, Assistant Professor, XXXXXX, Assistant Professor** for their guidance and useful suggestions, which helped me in completing the project work, on time.

Finally, yet importantly, I would like to express my heartful thanks to my beloved parents, faculty, my friends/classmates for their help, and my wishes for the successful completion of this project.

MUPPIDI TEJA VENKATA GANESH

/

(23B91A05J0)

**TABLEOFCONTENTS**

## S. No CONTENTS Page. No

1 A

# ABSTRACT

This project involves the design and development of a comprehensive web-based platform that serves as an information hub for hackathons and tech fests conducted across various colleges and universities. The primary aim is to provide students, developers, and technology enthusiasts with a centralized and easily accessible portal where they can explore, track, and participate in technology-related events. In the current scenario, details about such events are scattered across multiple social media platforms and college websites, making it difficult for interested participants to stay informed. This project addresses that challenge by collecting and organizing event information in a structured, user-friendly format.

The website features a dynamic event listing system where users can view upcoming, ongoing, and past events, filter events based on categories such as location, date, or theme, and access comprehensive details like event agendas, speaker profiles, registration links, prize information, and contact details. Event organizers are also provided with an interface to submit and manage their event listings, ensuring that the platform stays up-to-date with the latest happenings.

To build this system, modern web technologies such as HTML, CSS, JavaScript, and backend frameworks are employed along with a responsive UI/UX design to ensure accessibility across various devices. The project also emphasizes data accuracy and security, offering a reliable resource for students seeking to expand their technical skills and network with like-minded individuals. In addition, features like email notifications, bookmarking, and social media integration are incorporated to enhance user engagement.

Ultimately, this platform not only simplifies the process of discovering tech events but also encourages greater participation, collaboration, and innovation within the student community by bridging the gap between organizers and participants.

# 1.INTRODUCTION

In today’s rapidly evolving technological landscape, hackathons and tech fests have become integral components of academic and extracurricular life in colleges and universities. These events play a crucial role in nurturing creativity, problem-solving, collaboration, and real-world technical application among students. They provide a vibrant platform for young innovators to come together, form teams, work on cutting-edge challenges, and showcase their talents to peers, mentors, and industry experts. Additionally, these events often act as launchpads for start-up ideas, career opportunities, and skill enhancement, making them highly valuable for student growth.

Despite their growing popularity, there remains a significant lack of centralized platforms where information about these events is uniformly available. Most hackathons and tech fests are promoted through isolated channels such as individual college websites, social media posts, posters, and word-of-mouth communication. This fragmented system makes it difficult for interested students and developers to stay updated, compare events, or plan their participation efficiently. As a result, many students miss out on valuable opportunities due to lack of awareness or inadequate access to information.

This project aims to solve that problem by developing a dedicated website that serves as a centralized information hub for hackathons and tech fests held in colleges across the country. The platform is designed to be a go-to resource where users can explore a comprehensive listing of events with relevant details such as dates, venues, themes, eligibility criteria, prize structures, registration links, and organizer contacts. It will also include filters for categories like coding, robotics, design, AI/ML, and more, enabling users to find events that align with their interests.

The platform is not only beneficial for participants but also provides value to event organizers. Colleges can submit their event details through a dedicated portal, manage listings, and reach a broader audience, thereby increasing participation and visibility. Additionally, features like user accounts, notifications, reminders, bookmarking, and feedback forms ensure a more interactive and engaging user experience.

In essence, this project bridges the gap between opportunity and accessibility. It contributes to building a more connected, informed, and proactive student tech community. By making it easier for students to discover and participate in hackathons and tech fests, the platform encourages continual learning, peer collaboration, and an overall strengthening of the technical culture in academia

# 2.PROBLEM STATEMENT

Hackathons and tech fests have become essential platforms for students to apply their knowledge, collaborate with peers, and gain exposure to real-world problem-solving scenarios. These events are frequently organized by engineering and technical institutions across the country, offering students valuable opportunities to build their portfolios, develop new skills, and interact with industry professionals. However, despite their growing popularity and impact, the current system for discovering and accessing information about these events remains highly fragmented and inefficient.

There is no centralized platform where students can conveniently find comprehensive and up-to-date information about upcoming hackathons and tech fests across different colleges. Event details are often shared through disconnected channels such as college websites, social media posts, WhatsApp groups, and word-of-mouth, leading to limited reach, inconsistent updates, and missed opportunities for many potential participants. This decentralized approach results in a lack of visibility for both students and event organizers. Students struggle to stay informed about relevant events, while organizers find it difficult to reach a broader, more diverse audience.

Moreover, the absence of standardized information formats, filtering options, and user engagement tools makes it challenging for users to compare events, register easily, or receive timely reminders. This not only hampers participation but also reduces the overall impact and success of such events.

To address these issues, there is a clear need for a dedicated, user-friendly platform that consolidates information about hackathons and tech fests from colleges nationwide. Such a platform should offer advanced filtering and search capabilities, real-time updates, organizer tools, and personalized user features, thereby making the process of discovering and participating in tech events more streamlined, efficient, and impactful.

# 3.SOFTWARE REQUIREMENT SPECIFICATION

# 3.1 PURPOSE

The purpose of this project is to develop a centralized, user-friendly web platform that compiles and showcases information about hackathons and tech fests conducted by various colleges and universities. The platform aims to bridge the gap between event organizers and participants by making it easier for students to discover, explore, and register for technical events across the country. By doing so, the system promotes greater participation in co-curricular activities, encourages innovation and collaboration among students, and helps institutions increase the visibility and outreach of their events.

# 3.2 SCOPE

The scope of this project includes the design, development, and deployment of a fully functional web application that provides a centralized database of hackathons and tech fests. The platform allows users to:

* View a list of upcoming, ongoing, and past events
* Search and filter events by category, date, location, and college
* View event details such as schedules, themes, prizes, and contact information
* Register for events directly through provided links
* Organizers can submit and manage their event listings

# The system will be accessible via web browsers and optimized for mobile devices. Future scope may include mobile app development, integration of AI-based recommendation systems, and gamification for user engagement

# 3.3 OBJECTIVES

* To create a centralized platform for students to access information on tech fests and hackathons.
* To streamline the process of discovering, comparing, and registering for technical events.
* To provide an intuitive interface for event organizers to publish and manage their events.
* To increase student participation in extracurricular technical activities.
* To foster a connected community of students, organizers, and tech enthusiasts.
* To reduce reliance on scattered and informal communication channels like social media and messaging apps.

# 3.4 EXSISTING SYSTEM

Currently, there is no unified system or platform dedicated solely to listing hackathons and tech fests across colleges. Information is scattered across multiple platforms such as:

* Individual college websites
* Social media (Instagram, Facebook, LinkedIn)
* Messaging platforms (WhatsApp, Telegram)
* Event listing sites with limited coverage

# These systems are informal, inconsistent, and lack proper filtering, reminders, or registration support. Users often miss out on events due to poor visibility or outdated information, while organizers struggle to reach a wider audience.

# 3.5 PROPOSED SYSTEM

The proposed system is a web-based platform that centralizes and standardizes the discovery of tech events. Key features include:

* Dynamic event listing with search and filters
* User registration and personalized dashboards
* Organizer login for event submission and management
* Notifications/reminders for upcoming events
* Event categorization by type, domain, and college
* Responsive design for accessibility on multiple devices

This system will ensure that students can easily find and participate in relevant events while organizers can effectively promote their programs.

# 3.6 REQUIREMENTS

# 3.6.1 Software Requirements

* Front-end: HTML5, CSS3, JavaScript, Bootstrap
* Back-end: Node.js
* Database: MySQL / PostgreSQL / MongoDB
* Web Server: Nginx
* Operating System: Windows/Linux
* Browser Compatibility: Chrome, Firefox, Safari, Edge

# 3.6.2 Hardware Requirements

* Processor: Intel i3 or above
* RAM: Minimum 4 GB
* Storage: Minimum 100 GB HDD or SSD
* Display: Minimum 1366x768 resolution
* Internet Connectivity: Required for development and deployment

# 4.IMPLEMENTATION

# The implementation phase is where the conceptual design and planned features are transformed into a working software application. In this project, the web platform for displaying hackathons and tech fests is implemented using modern web development tools and follows a modular approach to ensure maintainability, scalability, and ease of development. The platform focuses on delivering a responsive, interactive, and user-centric experience for both participants and event organizers

# 4.1 TECHNOLOGIES USED

The development of the project involves the use of the following technologies:

**Frontend Technologies:**

* **HTML5:** Used for structuring the content of the web pages.
* **CSS3:** Used for styling the web pages to ensure a clean and attractive user interface.
* **JavaScript:** Enables dynamic behavior and interactivity in the frontend.

**Backend Technologies:**

* **Node.js :** Handles server-side logic, processes requests, and manages database interactions.
* **MySQL / PostgreSQL:** Relational database used to store event data, user accounts, and organizer submissions.

**Other Tools and Technologies:**

* **XAMPP / WAMP (for PHP development):** Local development environment.
* **Git/GitHub:** Version control and code collaboration.
* **Nginx:** Web servers for hosting and serving content.

# 4.2 MODULES IMPLEMENTATION

# 5.TESTING

# 5.1 TEST CASES

# 6.CONCLUSION AND FUTURE SCOPE

# 6.1 CONCLUSION

This project successfully delivers a centralized, user-friendly web platform for showcasing hackathons and tech fests organized by various colleges and universities. By addressing the limitations of the existing fragmented systems, the platform provides a unified interface for students, developers, and tech enthusiasts to discover, explore, and register for technical events with ease.

The system enables organizers to publish and manage their events efficiently, while users can benefit from features such as advanced search, filters, event details, and notifications. The project emphasizes simplicity, scalability, and responsive design, ensuring accessibility across different devices and browsers. Through modular implementation, the application maintains a clear separation of functionalities, improving maintainability and ease of future development.

Overall, the project contributes to building a more informed and connected student tech

community, encouraging active participation, knowledge sharing, and innovation.

# 6.2 FUTURE SCOPE

While the current version of the platform provides the essential features needed to list and discover events, there is ample scope for further enhancement and expansion. Future developments can include:

* **Mobile Application:** Creating dedicated Android and iOS apps for better accessibility and on-the-go event tracking.
* **User Profiles and Badges:** Implementing profiles where users can collect badges or certificates based on event participation.
* **AI-based Event Recommendations:** Using machine learning to recommend relevant events based on user interests and past activity.
* **Live Event Updates and Chat Integration:** Adding real-time updates, chat rooms, or discussion forums for participants.
* **Event Feedback and Rating System:** Allowing users to rate and review events to help others choose quality experiences.
* **Event Collaboration Tools:** Providing features for team formation, idea submission, and pre-event collaboration.
* **Multi-language Support:** Making the platform accessible to a broader user base by including multiple languages.
* **Monetization and Sponsorship Integration:** Introducing paid promotions for organizers and sponsorship visibility for brands.

With these future enhancements, the platform can evolve into a robust, community-driven ecosystem that supports both educational institutions and the larger tech community.

# 7.APPENDIX

# 7.1 SAMPLE CODE

# 7.2 SCREEN SHOTS