HACKVGEC

THINK CODE INNOVATE

PID	:	001
Title	:	CV Mate
Challenge Description with context	:	The problem statement for the hackathon is to develop a platform that allows students to showcase their achievements and co-curricular activities, and receive approval from faculty members. The platform should enable students to create a profile and add their accomplishments, project links and activities, including participation in sports, clubs, competitions, internships, research, and volunteer work. The platform should have a system for faculty members to review and verify the authenticity of the students' claims and provide approval based on their performance and contribution. It would be very helpful for students to build an effective resume.
Users	:	Students, Faculty members
Expected Outcome	:	The platform should also allow students to create profiles, add their accomplishments and activities and share them with their friends and batchmates, creating a social network for academic and personal recognition. Additionally, the platform should track the students' progress with different analytical sections like activities, including programming, cultural events, sports, and competitions etc. to distinguish similar events based on its scale or level and involvement throughout their course duration, providing them with a comprehensive record of their academic and extracurricular accomplishments. It should also allow faculty members to review and verify the authenticity of the students' claims and provide approval based on their performance and contribution.
Impact	:	It should be a user-friendly, secure, and reliable platform that encourages and recognizes students' achievements and co-curricular activities while providing them with a comprehensive record of their accomplishments.

HACKVGEC

THINK CODE INNOVATE

PID	:	002
Title	:	Deadstock Management System
Challenge Description with context	:	The challenge is to create a platform that allows educational institutes to effectively manage their resources through two registers - the Store register and Departmental register. The Store register should contain data about the quantity of resources assigned to each department, their conditions, and other relevant details. The Departmental register should store information about the allocation of resources to specific individuals and their locations. It should also ensure that the resources allocated to departments match the quantity of resources in the Store register to maintain reliability. The platform should have several features such as the ability to delete a resource from the database and transfer it to another department.
Users	:	Store department
Expected Outcome	:	To enhance the platform's performance, it is crucial that it can efficiently maintain registers and store details about all resources. Additionally, each resource should be assigned a unique key to prevent duplication or confusion. It's also essential to keep track of the resource's current location and condition to ensure proper management.
Impact	:	The goal of this platform is to streamline the management of educational resources and prevent the discrepancies and/or errors of stock.

HACKVGEC

THINK CODE INNOVATE

PID	:	003
Title	:	Chatbot for Educational Institutes
Challenge Description with context	:	Imagine being a first-year college student, eager to explore your new environment and make the most out of your academic journey. However, you quickly realize that navigating the student affairs, scholarships, important documents, and any other relevant information are no easy feat. The constant back-and-forth between different departments and blocks is not only time-consuming but also mentally draining. Your task is to develop a cutting-edge chatbot that revolutionizes the way students access information about different departments. Your chatbot must be intelligent, user-friendly, and up-to-date with the latest information from all relevant departments and blocks. The chatbot should be able to answer a variety of queries of the students. It should be able to provide detailed and accurate responses to any questions posed by the user.
Users	:	Students
Expected Outcome	:	Designing a user-friendly chatbot for VGEC that serves as a one-stop solution for students, providing easy access to information and frequently asked questions related to various sections such as student affairs, scholarship department, exam section, and more. The chatbot will allow for effortless navigation and quick resolution of queries, while also enabling the admin to easily update and include new information to ensure that students always have the latest and most accurate information at their fingertips.
Impact	:	Your chatbot should not only make life easier for students but also save valuable time and resources for the university. By streamlining the communication process, your chatbot can reduce the workload on university staff.

HACKVGEC

THINK CODE INNOVATE

PID	:	004
Title	:	Form Friend
Challenge Description with context	:	Currently it is challenging for Faculty members to take follow-up of the forms they have shared with students and they have to remind them again and again to fill the form. So, participants have to develop a platform that facilitates smooth and efficient form sharing (As a form link) of any kind and to take follow-up between administrators and students. The platform should allow administrators to easily share forms or links with the students. Additionally, the platform should provide automated and manual reminders to students who have not yet responded to a form, making it easier for administrators to take follow-up. The platform should also allow students to view the forms shared by administrators and the forms which are not yet filled by them and provide their consent by indicating whether they have filled out the form or not. This will help administrators keep track of who has responded and who needs follow-up.
Users	:	Faculty members, Students
Expected Outcome	:	Develop a platform where faculty members can share forms, easily view who has filled or not filled, take its follow-up and remind to the students. Additionally, you can add different features like custom reminders. Think upon how you will identify who has given wrong consent and how would you prevent this?
Impact	:	The ultimate goal of this platform is to create a seamless collaboration between administrators and students. This will not only save time and effort for administrators but also ensure that students are well informed and timely respond in the administrative processes.

HACKVGEC

THINK CODE INNOVATE

PID	:	005
Title	:	MessMate - A Comprehensive Mess Management Platform
Challenge Description with context	:	Make a platform which enables the hostellers to subscribe the daily, weekly or monthly meals(lunch/dinner) of mess. Hostellers can make payments for meals through the platform and give their consent on whether they will take a meal on a particular day or not. On the other hand, mess authorities can display the menu daily, count the hostellers who will come to have a meal and verify them, create a poll for menu on special occasions, and take feedback from the members. The platform should be able to generate monthly analysis and reports of food. Additionally, the platform should be able to manage inventory for the mess. Overall, the platform should facilitate efficient management of meals, inventory, and feedback for the mess authorities and members.
Users	:	Mess Authority, Hostellers
Expected Outcome	:	Platform that allows hostellers to subscribe to weekly or monthly meals, make payments, and provide consent for meals. Mess authorities can display daily menus, verify attendance, create polls, take feedback, and manage inventory. The platform generates monthly analysis and reports for food and guest management, facilitating efficient management for both hostellers and mess authorities.
Impact	:	Mess authorities will get accurate number of meals to be prepared for a day to prevent food wastage. Inventory management would allow to the mess to utilize food items efficiently.

Note: It is not mandatory to integrate Payment Gateway for payments.

HACKVGEC

THINK CODE INNOVATE

PID	:	006
Title	:	Video Conferencing Management
Challenge Description with context	:	Create a video conferencing platform that can cater to the needs of conference organizers. The platform should have a speech-to-text feature that can summarize the conference with detailed and important keywords of conference. The platform should also be capable of assigning tasks to members based on their speech and inbuilt keywords. Additionally, the platform should have the ability to record video and save it in file storage. It should also have an automated spotlight feature that can highlight the current speaker. The platform should have a file management system that can share files with others. The summary generated by the platform should be editable for the organizers and sharable to others. The platform should also provide an easy-to-use interface that can handle a large number of participants.
Users	:	Presenters, Conference Attendees
Expected Outcome	:	Develop an all-in-one video conferencing platform for conference organizers with advanced features such as speech-to-text transcription, automated spotlight, task assignment, file management, and editable summary generation. The platform should have an intuitive and user-friendly interface. Furthermore, the system should be capable of recording and saving video sessions for later use.
Impact	:	Organizers can easily summarize the conference and can-do task distributions with speech to text feature.

HACKVGEC

THINK CODE INNOVATE

PID	:	007
Title	:	Peripheral Device Monitoring System for Network Administration and Lab Management
Challenge Description with context	:	The problem statement refers to a software system that can monitor peripheral devices (e.g., pen drive, printers, scanners, mouse etc.) connected to a network or lab computers, and manage them efficiently for network administration and lab management purposes. The system is expected to identify, monitor and provide real-time information about the status of peripheral devices, detect errors or failures, and alert administrators to take corrective action.
Users	:	1. Network Admin 2. Faculty members 3. Lab Assistants
Expected Outcome	:	There will be two type of module system: Master and slaves. Where master system can monitor and provide detailed analytics and reports of each peripheral devices attached to the slaves. - Ex. One master computer can identify whether pen drives, printers, scanners etc. have attached to the any of slave devices and are they secured or not, also it can check device information like cartridge of printer attached to slaves' system too. Admins can get report and analysis of slave systems and about their performances.
Impact	:	The Peripheral Device Monitoring System for Network Administration and Lab Management aims to simplify and streamline the process of managing peripheral devices, ensuring that they operate efficiently and reliably, and minimize downtime for network users and lab researchers.

HACKVGEC

THINK CODE INNOVATE

PID	:	008
Title	:	Blockchain based Certification
Challenge Description with context	:	With the increasing use of digital credentials, it has become important for educational institutions to have a secure and reliable way of issuing and verifying digital certificates for different events and competitions. Blockchain technology provides a decentralized and tamper-proof solution for this problem. A blockchain-based certification program can help eliminate fraud and provide a more efficient and cost-effective way of managing certificates. The challenge is to develop a blockchain-based certification program that allows educational institutions to issue digital certificates for events and courses securely and to verify them easily. The program should be user-friendly. It should also provide a way for individuals to store and share their certificates securely.
Users	:	Organizations and Individuals
Expected Outcome	:	Make a functional prototype of the blockchain-based certification program where organizations can issue certificates for winners, organizers and participants and can verify these certificates from blockchain. The prototype should have a user-friendly interface, smart contract automation, data privacy measures, and scalability. It should also integrate with existing certification systems and be compatible with different platforms.
Impact	:	The blockchain-based certification program can provide a secure and efficient way for individuals, educational institutions, and companies to manage and verify certification records. The program can reduce administrative overheads, increase trust in the certification process, and improve transparency and accountability.

HACKVGEC

THINK CODE INNOVATE

PID	:	009
Title	:	Assess with Ease: A One-stop Platform for standardize Evaluation of Students
Challenge Description with context	:	Develop a platform for faculty members to conduct student assessments efficiently and effectively. The platform should allow faculty members to create customized quizzes based on different Course Outcomes (CO). Based on the CO, the platform should generate an analysis sheet that shows the performance of the entire class. Additionally, the platform should allow faculty members to assess student assignments and practical assessments based on rubrics, which have different marks for criteria types such as understanding, implementation, documentation, etc. The rubrics should be pre-defined and standardized across all assessments. Finally, the platform should generate a comprehensive analytical report of the entire class's performance at the end of the course duration. This report should provide insights on the strengths and weaknesses of the students, the effectiveness of the teaching methods, and any areas that require improvement.
Users	:	Faculty members, Students
Expected Outcome	:	A comprehensive platform that allows faculty members to efficiently create customized quizzes for assessments of students, as well as assess their assignments and practical assessments using standardized rubrics. The platform should generate a detailed analysis sheet that shows the performance of the entire class, including strengths and weaknesses, teaching effectiveness, and areas for improvement. The final outcome should be a comprehensive analytical report of the entire class's performance at the end of the course duration and these reports need to be exported as per needs.

Impact : The impact of developing a platform for efficient and effective student assessments includes improved productivity, customized assessments, standardized grading, valuable insights into student performance, and potentially improved teaching effectiveness. This can lead to better outcomes for students and faculty members.

Reference:

Quiz Assessment Criteria

	CO1(5 marks)	CO2(7 marks)	CO3(4 marks)	CO4 (4 marks)	**Total marks**
Student 1	5	6	2	3	**16**
Student 2	4	5	3	2	**14**
Student 3	5	4	2	4	**15**
Student 4	3	5	3	4	**15**
Student 5	5	7	4	3	**19**
Class total	22	27	14	16	**79**
Per Student	**4.4**	**5.4**	**2.8**	**3.2**	**15.8**

Number of COs and marks alloted to each CO should be dynamic.

Assignment/Practical Assessment Criteria

	Understanding(3 marks)	Implementation(5 marks)	Documentation(2 marks)	**Total marks**
Student 1	3	4	2	**9**
Student 2	2	5	2	**9**
Student 3	3	4	1	**8**
Student 4	1	5	2	**8**
Student 5	2	4	1	**7**
Class total	11	22	8	**41**
Per Student	**2.2**	**4.4**	**1.6**	**8.2**

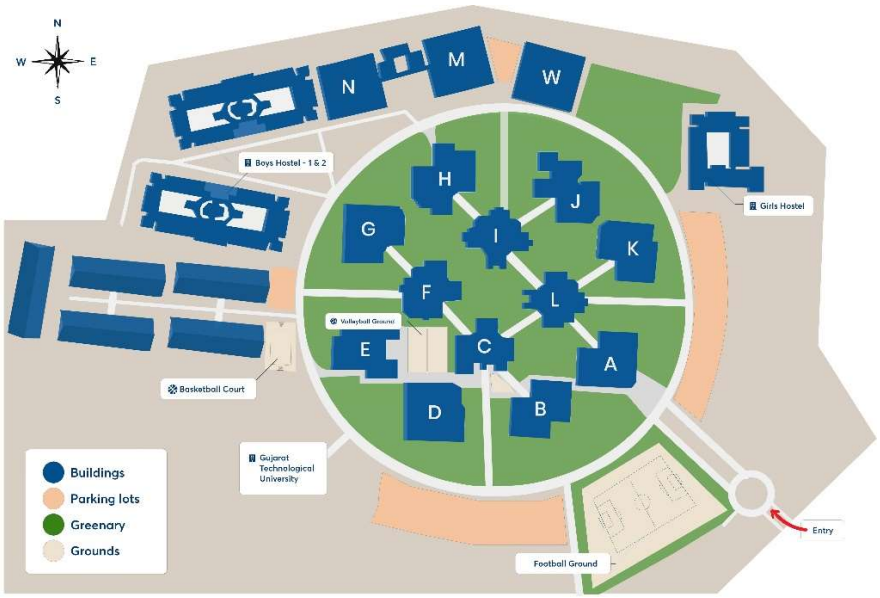
Number of Assessment critertia and marks alloted to each criteria should be dynamic.

Excel sheet need to be exported for both reports

HACKVGEC

THINK CODE INNOVATE

PID	:	010
Title	:	Indoor Map and Navigation System
Challenge Description with context	:	The layout of VGEC is very complex and it is very troublesome to find pathways from one department to another. Make an indoor navigation system which can be helpful for everyone to navigate from one department other department and can find different point of interest, such as canteen, restroom, exit. This can be used to provide step-by-step directions to help users reach their desired destination, including the shortest route, and turn-by-turn directions. The system uses a combination of technologies such as Wi-Fi, Bluetooth, GPS, and sensors to locate and track the position of the user in real-time.
Users	:	Students and Visitors
Expected Outcome	:	To create a mobile app or web app for indoor navigation of VGEC. By which one can easily reach from one block to another block, and also access to various facilities of VGEC which is also interactive.



Impact	:	The system can also help new students, visitors, and faculty members to quickly familiarize themselves with the campus layout and easily find their way around.

HACKVGEC

THINK CODE INNOVATE

PID	:	011
Title	:	Hostel Management System
Challenge Description with context	:	Currently, the whole hostel admission process and all other hostel administration is done on paper manually. Hostel management system is a platform that automate the management of hostel activities, including registering and applying, room allocation, check-in, check-out, attendance, different applications, and inventory management. Administrators can allocate the rooms to eligible candidates based on their merit rank and home town distance.
Users	:	Rectors, Warden and Hostellers
Expected Outcome	:	Develop an automated Hostel Management System that can handle tasks such as registration, room allocation, attendance, application forms, and inventory management. It should be user-friendly and accessible to students and administrators, improving the overall hostel experience. Also, it can be used for administrations to find hostel occupancy, availability and other key metrics. It should be easy to use and accessible to students, hostel administrators and other staff members with real-time updates.
Impact	:	Developing an automated Hostel Management System would significantly improve efficiency, accuracy, and user experience for both students and administrators. It would reduce manual effort, provide real-time updates, enable data-driven decisions, and enhance communication and resource allocation.