

**CS** Competitions

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# **Competitive Programming**

#### **Overview**

In this exciting competition, teams need to implement solutions that effectively solve the given problems within the given time and memory constraints. The questions are set according to the rules of the International Collegiate Programming Contest (ICPC). Teams compete by coming up with smart and efficient solutions using suitable data structures and algorithms, as quickly as possible. It's a fun and challenging adventure where teams use strategic thinking and coding skills to succeed in competitive Programming.

#### Rounds

The competition consists of two rounds

Round 1: This round will consist of 6-7 problems and teams have a time limit of 3 hours to complete these challenges. Top 50% of teams will qualify for Round 2.

Round 2: This round will consist of 10-11 problems with a time limit of 5 hours to complete these challenges.

Each round will have increasing difficulty of problems. Teams can not do partial submissions.

#### **Team Formation**

Each team can have a maximum of 3 members.

- Internet access will be allowed throughout the competition venue for the submission of codes.
- Teams found using Chat GPT, Google Bard or any other websites will be disqualified.
- Mobile usage is strictly **prohibited.**
- Collaborating with other groups in any sort of way will lead to **disqualification**.
- Languages supported for competition are C/C++, Python and Java.
- Partial submissions are **NOT** awarded any points.
- Viudge online platform will be used for the competition.
- Edibles are **strictly prohibited** in the competition venue.
- Any team will **be disqualified** due to any of the reasons mentioned below.
  - o Plagiarism
  - Usage of internet during the competition (except Vjudge)
  - Disturbance or misconduct with any invigilator or fellow competitors

- Teams are **NOT** expected to bring the laptops with them in the competition because PCs will be provided in the lab venue, communicated through the mail beforehand.
- Competition will be started on the stated time. All teams are expected to arrive on time or earlier to get a head start on instructions.
- The organizers reserve the right to modify the rules or competition parameters in the event of unforeseen challenges, technical difficulties, or circumstances beyond control. Any changes will be communicated promptly to all participants to ensure fairness and transparency.

## **Code Sprint**

#### **Overview**

In this fast-paced competition, teams race against the clock to solve coding challenges as quickly as possible. The goal is to be the first team to successfully tackle all the challenges within the given time frame. It's a test of speed, problem-solving skills, and teamwork. The team that efficiently cracks the code and completes all challenges in the shortest time emerges as the victorious sprinter in this coding marathon. Get ready for an adrenaline-fueled coding experience!

#### Rounds

The competition consists of 5 rounds:

In each round, the teams will be given 3-4 problems and will be given 1 hour to solve those problems. Bottom 20% of the teams will be disqualified in each successive round.

Each round will have increasing difficulty of problems. Teams can submit partial solutions which will award them partial scores.

#### **Team Formation**

Each team can have a maximum of 3 members.

- Internet access will be allowed throughout the competition venue for the submission of codes.
- Teams found using Chat GPT, Google Bard or any other websites will be **disqualified.**
- Mobile usage is strictly **prohibited**.
- Collaborating with other groups in any sort of way will lead to disqualification.
- Languages supported for competition are C/C++, Python and Java.
- Partial submissions are allowed.
- Vjudge will be used for the competition.
- Edibles are **strictly prohibited** in the competition venue.
- Any team will **disqualify** due to any of the reasons mentioned below:
  - o Plagiarism
  - Usage of internet during the competition (except Vjudge)
  - Disturbance or misconduct with any invigilator or fellow competitors
- Teams are **NOT** expected to bring the laptops with them in the competition because PCs will be provided in the lab venue, communicated through the mail beforehand.

- Competition will be started on the stated time. All teams are expected to arrive on time or earlier to get a head start on instructions.
- The organizers reserve the right to modify the rules or competition parameters in the event of unforeseen challenges, technical difficulties, or circumstances beyond control. Any changes will be communicated promptly to all participants to ensure fairness and transparency.

# **Speed Debugging**

#### **Overview**

In this thrilling competition, teams will put their debugging skills to the test as they race against the clock to identify and fix bugs in various code snippets. The bugs could be of different types, including logical errors, memory management issues, and runtime errors. Teams will need to showcase their expertise in quickly identifying and rectifying these bugs to ensure the smooth and efficient functioning of the code. It's a challenge that combines problem-solving acumen with the need for swift and accurate debugging. The team that demonstrates the quickest and most effective bug-squashing abilities will emerge as the ultimate speed debugger! Get ready for a high-paced coding adventure.

#### **Rounds**

The competition consists of two rounds.

Round 1: It is a paper based MCQs round. It will be 60 - 90 minutes. Teams with more correct answers will qualify for the next round. Also submission time will also be noted.

Round 2: It is a computer based round where teams will be given codes and problem statements and they have to find the logical bugs in the code to make it correct according to the problem statement.

Winner will be decided based on time and an efficient solution.

#### **Team Formation**

Each team can have a maximum of 3 members.

- Internet access will **NOT** be allowed throughout the competition venue.
- Teams found using Chat GPT, Google Bard or any other websites will be **disqualified.**
- Mobile usage is strictly **prohibited**
- Collaborating with other groups in any sort of way will lead to **disqualification**
- Submissions will be taken on paper for round 1 and on GCR (Google Classroom) for round 2.
- Edibles are **strictly prohibited** in the competition venue.
- Any team will **disqualify** due to any of the reasons mentioned below
  - o Plagiarism
  - Usage of the internet during the competition.

- o Disturbance or misconduct with any invigilator or fellow competitors.
- Teams are **NOT** expected to bring the laptops with them in the competition. because PCs will be provided in the lab venue, communicated through the mail beforehand.
- Competition will be started on the stated time. All teams are expected to arrive on time or earlier to get a head start on instructions.
- The organizers reserve the right to modify the rules or competition parameters in the event of unforeseen challenges, technical difficulties, or circumstances beyond control. Any changes will be communicated promptly to all participants to ensure fairness and transparency.

## Pseudo War

#### **Overview**

It's a competition where teams use their clever thinking to create step-by-step plans called pseudo codes for solving problems. The catch? They need to make sure their plans are efficient, considering how much time and space they use. No actual coding required—just smart ideas on how to solve the challenges. The team that comes up with the clearest and most effective pseudo codes wins the battle. Get ready for a fun challenge that's all about smart problem-solving!

#### Rounds

There will be two rounds. Both rounds will be played for two hours. Round 1 is the qualifier round. Both rounds involve problem-solving skills and are conducted on paper on-site. Teams will be judged on more optimized solutions and in case of ties, the team having earlier submission will be considered the winner.

#### **Team Formation**

Each team can have a maximum of 3 members.

- Internet access will **NOT** be allowed throughout the competition venue.
- Mobile usage is strictly **prohibited**
- Collaborating with other groups in any sort of way will lead to **disqualification**
- Equipment, other than provided, are **NOT** allowed during the competition.
- Submissions will be taken on paper.
- Edibles are **strictly prohibited** in the competition venue.
- Any team will disqualify due to any of the reasons mentioned below
  - o Plagiarism
  - Usage of the internet during the competition.
  - Disturbance or misconduct with any invigilator or fellow competitors.
- Teams are **NOT** expected to bring the laptops with them in the competition. because it is a paper based onsite competition and venue will be communicated through the mail beforehand.
- Competition will be started on the stated time. All teams are expected to arrive on time or earlier to get a head start on instructions.
- The organizers reserve the right to modify the rules or competition parameters in the event of unforeseen challenges, technical difficulties, or circumstances beyond control. Any changes will be communicated promptly to all participants to ensure fairness and transparency.

## **App Dev**

#### **Overview**

The App Dev Challenge invites developers to showcase their expertise by crafting innovative and functional applications. This competition focuses on creating robust mobile applications that encompass core functionalities and adhere to the best practices in app development. Participants will be evaluated on key aspects, including seamless functionality, intuitive user interfaces, platform responsiveness, efficient performance, stringent security measures, and adherence to coding standards. The competition unfolds over a specific timeline, with participants registering, receiving guidelines, and submitting their projects for evaluation

#### **Rounds**

The Competition consists of 2 main and 1 pseudo round:

Round 1: Participants will be required to create 25% of the application components. This round will span 4 hours and take place on the 1st Day of Procom. Any programming framework is allowed. This round will take place on-site.

Pseudo-Round: This round acts as the interlude between rounds 1 and 2. Participants are free to work on their application during this time, in their own homes. Participants are recommended to complete around 75% of their remaining components before round 2.. This recommendation is made to ensure that the remaining application will be completed during the last round.

Round 2: This round will span 4 hours and take place on Day 2 of Procom. The last 25% of the components are to be made during this round. Committing the complete app to GitHub is also to be done during the round. Judging of submissions will take place afterward.

#### **Team Formation**

A maximum of 5 participants are allowed in each team.

- Internet access will be allowed throughout the competition venue.
- Mobile usage is strictly **prohibited**
- Collaborating with other groups in any sort of way will lead to **disqualification**
- Equipment, other than that provided, is **NOT** allowed during the competition.
- Participants can use ANY Programming Framework they wish
- The decision of the Judges will be final.
- Instructions will be provided using GCR (Google Classroom).

- Submissions will be taken via Github. (Participants are required to commit to Github before the round ends. Any later commits will not be entertained.)
- Edibles are **strictly prohibited** in the competition venue
- Any team will **be disqualified** due to any of the reasons mentioned below:
  - o Plagiarism
  - Usage of AI Tools, and predefined applications during the competition
  - Disturbance or misconduct with any invigilator or fellow competitors
- Teams are **required** to bring the laptops with them to the competition. All required software must be available on the laptop beforehand.
- The competition will be started on time. All teams are expected to arrive on time or earlier to get a head start on instructions. Strict Punctuality will be observed.
- The organizers reserve the right to modify the rules or competition parameters in case of unforeseen challenges, technical difficulties, or circumstances beyond their control. Any changes will be communicated promptly to all participants to ensure fairness and transparency.
- Usage of AI tools even during the pseudo-round is not allowed. Plagiarism and AI detection checks will be implemented on the submissions.

## Web Dev

#### **Overview**

This challenge invites developers to showcase their skills by building a robust website that excels in core functionalities and adheres to web development best practices. Participants will be evaluated on functionality, design, responsiveness, performance, security, and coding standards. The competition unfolds over a set timeline with specific milestones.

#### **Rounds**

The competition will consist of 2 rounds:

Round 1: Participants will be given a set of instructions, to guide them through building a website. The website will be made up of numerous components. 50% of the required components must be tackled and finished during this round. Any programming framework is allowed.

Round 2: The remaining components will be made during the second round. Commits to submission must be done before the round ends, and judgment will be carried out after the round ends.

Both Rounds will be of 4 hours.

#### **Team Formation**

A maximum of 3 participants will be allowed per team.

- Internet access will be allowed throughout the competition venue.
- Mobile usage is strictly prohibited
- Collaborating with other groups in any sort of way will lead to **disqualification**
- Equipment, other than that provided, is **NOT** allowed during the competition.
- Participants can use any Programming Framework they wish
- The decision of the Judges will be final.
- Instructions will be provided using GCR (Google Classroom).
- Submissions will be taken via Github. (Participants are required to commit to Github before the round ends. Any later commits will not be entertained.)
- Edibles are strictly prohibited in the competition venue
- Any team will be disqualified due to any of the reasons mentioned below
  - o Plagiarism

- Usage of AI Tools, website builders, and predefined websites during the competition
- Disturbance or misconduct with any invigilator or fellow competitors
- Teams are **required** to bring the laptops with them to the competition. All required software must be available on the laptop beforehand.
- The competition will be started on time. All teams are expected to arrive on time or earlier to get a head start on instructions. Strict Punctuality will be observed.
- The organizers reserve the right to modify the rules or competition parameters in case of unforeseen challenges, technical difficulties, or circumstances beyond their control. Any changes will be communicated promptly to all participants to ensure fairness and transparency.

## Game Dev

#### **Overview**

In this competition, teams will create awesome games. It's all about making games that look good, play well, are at just the right level of difficulty, and most importantly, show off some cool and creative ideas. Get ready for a fun competition where making great games is the name of the game!

#### **Rounds**

There will be two rounds.

Round 1 (THE CREATIVE FORGE): This round will start before the event starts. Teams will be provided with a half cooked game (Unity, Godot, Unreal or Pygame). They Will be required to enhance it according to a given theme. The Creative Forger ends on Procom day 1 before the start of Open House. Judges will score according to their rubrics. Public and Judges will be evaluating the creations with a ratio of 50%,50% respectively.

Round 2 (THE ARENA OF THE LEGEND): This round starts after the end of OpenHouse and teams have to implement a boss fight in 24 hours. The Arena of the Legend ends on Procom Day 2 before the start of the Open House. Public and Judges will be evaluating the creations with a ratio of 50%,50% respectively.

The Theme for this gameDev Showcase is 2D Roguelike Pixelated

#### **Team Formation**

Each team can have a maximum of 5 members.

- **ONLY** four engines are allowed (Unity/Godot/Unreal/Pygame)
- Teams are **required** to Bring their own laptops. Internet connection, and power supply will be provided.
- Teams will be given grace time to set up their games and address any issues before the open house starts
- Github link submission will be required for any engine that you selected.
- There will be **NO** Game Engine bias, e.g If you select Pygame or Unreal, You will be graded according to the accomplishment.
- Any technical issue should be addressed before the OpenHouse
- Creativity will make a huge impact so Any exact replica games will be **disqualified**.
- If you find our half baked version difficult to work with, you may make your own considering the following:

- Same Genre
- Same Dimensions
- No boss levels.
- No leniency in judgment will be given based on the fact that you created everything from scratch.
- o Or contact us if you are facing any issue.
- Inappropriate Aesthetics are **NOT** allowed. (NSFW art, Abusive Language etc.)
- Any form of Innuendos will result in **disqualification** and no certificate.
- Any form of Aesthetic Gore is allowed (blood splatter, gore, explosions etc.)
- Scoring will be done by the public.
- A member of your own team and can score games of other teams.
- To keep the scoring fair, the number of individuals who voted will be kept same for all teams.
- Final Score will be calculated by averaging out all the scores the team received.
- The organizers reserve the right to modify the rules or competition parameters in the
  event of unforeseen challenges, technical difficulties, or circumstances beyond control.
  Any changes will be communicated promptly to all participants to ensure fairness and
  transparency.

#### Creative Forge (Round 1):

- Teams are required to **strictly** base all their modifications on the given theme
- At Least 20 players(from team/public) will be required to **fail** the difficulty.
- Teams can add/modify:
  - o More categories of the same class of enemies. (Example: a normal walking zombie is in the same Enemy class as a ranged spitting zombie)
  - The aesthetic to maintain consistency
  - Change game mechanics such that the genre remains.
  - Adjust the flow of the game
  - o Adjust Difficulty. Difficulty should be hard
  - UserInterface (shops/menu etc.)
  - Functionality
- Teams **cannot** add/modify:
  - Game Dimensions (example: 2D stays 2D cannot change to 3D)
  - Classes of enemies.(Example: Adding a single miniboss or boss)
  - Cutscenes
  - o Levels

#### Arena of The Legend (Round 2):

• Boss Fight should be consistent with the aesthetics

- Boss Fight Should not be easy and should be beatable
- Teams can add/modify:
  - o Cutscenes/Story
  - o levels
  - o Elite Units
  - o Dimensions to suit Boss fight
- Teams **cannot** add/modify:
  - o additions/modifications done in round 1

# **UI / UX Competition**

#### **Overview**

Attention pixel pushers and interaction architects! Are you ready to conquer this UI/UX competition and leave the judges speechless? Prepare to witness design mastery and user experiences that sing. Buckle up, it's about to get creative!

#### **Rounds**

This competition consists of 2 Rounds:

Round 1: Participants will be provided with an already designed application UI and asked to improve upon it. This round will last 60 minutes.

Round 2: Participants will be asked to create a responsive web app completely from scratch. The software used will be Figma. (Coding is not a part of this). The round will last 90 minutes.

#### **Team Formation**

A team will have a maximum of 2 members.

- Internet access will be allowed throughout the competition venue (**ONLY** for syncing files and assets).
- Mobile usage is strictly **prohibited**
- Collaborating with other groups in any sort of way will lead to **disqualification**
- Equipment, other than that provided, is **NOT** allowed during the competition.
- Participants can **ONLY** use Figma.
- The decision of the Judges will be final.
- Instructions will be provided using GCR (Google Classroom).
- Submissions will be taken via GCR (Google Classroom).
- Edibles are **strictly prohibited** in the competition venue
- Any team will **be disqualified** due to any of the reasons mentioned below
  - o Plagiarism
  - Usage of the internet (other than for the mentioned purpose) during the competition.
  - Disturbance or misconduct with any invigilator or fellow competitors
- Teams are **NOT** required to bring the laptops with them to the competition. PCs will be provided at the venue.

- The competition will be started on time. All teams are expected to arrive on time or earlier to get a head start on instructions. Strict Punctuality will be observed.
- The organizers reserve the right to modify the rules or competition parameters in case of unforeseen challenges, technical difficulties, or circumstances beyond their control. Any changes will be communicated promptly to all participants to ensure fairness and transparency.

## **Code In The Dark**

#### **Overview**

In Code in the Dark, participants take on an exhilarating task to put their skills in front-end programming to the test: creating interfaces entirely in the dark. In order to create pixel-perfect designs, developers must use only their coding intuition and mental visualization in this one-of-a-kind challenge that eliminates visible feedback. The fundamental guideline is straightforward but strict: no output previews are allowed while the project is being implemented.

#### Rounds

This competition consists of two rounds

Round 1: Participants have to replicate a web page (which will be previewed on a projector at the start of competition for once) using HTML, CSS and Java Script. Duration of this Round is 2 hours.

Round 2: It consist of 5 sub rounds, sub round 1 will be related to HTML, sub round 2 will be related to CSS, sub round 3 will be related to Java Script, sub round 4 will be related to HTML and CSS and sub round 5 will be related to HTML, CSS and Java Script. Duration of each Sub Round is 15 minutes.

We will also provide hints in envelopes to the teams, red (HTML), blue (CSS) and yellow (JavaScript).

#### **Team Formation**

Each team can have a maximum of 3 members.

- Internet access will **NOT** be allowed throughout the competition venue.
- Mobile usage is strictly **prohibited**
- Collaborating with other groups in any sort of way will lead to **disqualification**
- Equipment, other than provided, are **NOT** allowed during the competition.
- Language supported for competition are HTML, CSS, Java Script
- Decision of the Judges will be final.
- Submissions will be taken using GCR (Google Classroom).
- Edibles are **strictly prohibited** in the competition venue
- IDE provided by the organizing team is allowed only, any team using any other IDE will be **disqualified**.

- Any team will **disqualify** due to any of the reasons mentioned below
  - o Plagiarism
  - Usage of internet during the competition
  - Disturbance or misconduct with any invigilator or fellow competitors
- Teams are **NOT** expected to bring the laptops with them in the competition because PCs will be provided in the lab venue, communicated through the mail beforehand.
- Competition will be started on the stated time. All teams are expected to arrive on time or earlier to get a head start on instructions.
- The organizers reserve the right to modify the rules or competition parameters in the event of unforeseen challenges, technical difficulties, or circumstances beyond control. Any changes will be communicated promptly to all participants to ensure fairness and transparency.

## AI Showdown

#### **Overview**

The AI Showdown is a dynamic competition where participants delve into real-world datasets, applying their expertise to solve intricate problems. The challenge tests skills in data cleaning, exploratory data analysis, insight and pattern extraction, and predictive modeling. Participants are evaluated based on solution accuracy, model effectiveness, and their ability to communicate insights. The competition is designed to cater to participants of all levels, whether you are a newbie, a beginner, or a seasoned ML expert. The event not only offers winners valuable prizes but also recognition, making the challenge a dynamic platform for showcasing and advancing data science and machine learning expertise.

#### Rounds

The competition consists of two rounds.

Round 1: Exploratory Data Analysis (EDA) and Modeling, Teams will be provided with a CSV file and teams have to perform EDA which have a deadline of 1-2 hours and should be done onsite. Next they have to apply ML models on that data, and have a deadline till 11:59 pm day 1.

Round 2: Modeling without Internet, Qualified teams will be provided with CSV but this time data will be refined and ready to apply models. Teams will have to apply models based on their knowledge and do it in 3 hours without internet access.

#### **Team Formation**

Each team can have a maximum of 3 members.

- Internet access will be allowed throughout the competition venue for round 1 only.
- Teams found using Chat GPT, Google Bard or any other websites (except during round 1) will be **disqualified.**
- Mobile usage is strictly **prohibited.**
- Collaborating with other groups in any sort of way will lead to **disqualification**.
- Equipment, other than provided, are **NOT** allowed during the competition.
- Decision of the Judges will be final.
- Submissions will be taken using Kaggle.
- Edibles are strictly prohibited in the competition venue
- Any team will **disqualify** due to any of the reasons mentioned below
  - o Plagiarism

- Usage of internet during the competition (except during round 1)
- Disturbance or misconduct with any invigilator or fellow competitors
- Intentional data manipulation, fabrication, misrepresentation, or plagiarism will lead to immediate **disqualification**.
- Unauthorized access to additional data sources or confidential information will result in **disqualification**.
- Teams are **required** to bring the laptops (with required software, i.e. Python, Jupyter Notebook, and DS/ML libraries installed) with them in the competition and venue will be communicated through the mail beforehand.
- Competition will be started on the stated time. All teams are expected to arrive on time or earlier to get a head start on instructions.
- The organizers reserve the right to modify the rules or competition parameters in the event of unforeseen challenges, technical difficulties, or circumstances beyond control. Any changes will be communicated promptly to all participants to ensure fairness and transparency.

# **Capture The Flag**

#### **Overview**

Capture The Flag (CTF) competition follows the tried and tested approach of hiding flags inside purposefully-vulnerable programs/web apps, which the participants are expected to retrieve by exploiting the vulnerabilities present in the program/web apps. The contest encompasses multiple challenges belonging to a wide array of cybersecurity categories.

#### Rounds

The competition consists of only one round:

Round 1: The participants will be given 3 hours to solve five challenges belonging to the following categories:

- I. Web Security
- II. Cryptography
- III. Reverse Engineering & Binary Exploitation
- IV. Forensics
- V. Open-Source Intelligence (OSINT)

The winning team will be decided according to no. of challenges solved, with submission timestamp being the tiebreaker.

#### **Team Formation**

Each team can have a maximum of 3 members.

- Internet access will be allowed throughout the competition venue for the submission.
- The challenges will be hosted on an online platform i.e. CTFd, etc
- Teams are **required** to bring their own laptops with a native/VM Linux distro (preferably Kali or Parrot OS).
- Edibles are **strictly prohibited** in the competition venue
- Any team will **disqualify** due to any of the reasons mentioned below:
  - Plagiarism / Collaborating with other groups
  - Sharing credentials with outsiders
  - Sharing of captured flags
  - Disturbance or misconduct with any invigilator or fellow competitors
- Competition will be started on the stated time. All teams are expected to arrive on time or earlier to get a head start on instructions.

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## **Blockchain Blitz**

#### **Overview**

The Blockchain Blitz competition is tailored for developers looking to showcase their expertise in key areas of Blockchain development. With a primary focus on Ethereum Smart Contracts, participants must demonstrate proficiency in the Solidity programming language, a prerequisite for engagement. The competition extends its scope to Smart Contract auditing, challenging developers to refine and optimize contracts based on criteria such as gas fees and memory consumption. While a basic understanding of blockchain suffices for participation, a mandatory prerequisite is a strong command of Solidity. Participants will leverage their knowledge of smart contract features, including modifiers and callback parameters, to strategically minimize transaction costs. This competition promises a dynamic environment for developers to hone their skills and tackle real-world challenges in Blockchain development.

#### **Rounds**

There are 2 main rounds and each will take place on their respective day (SCTF on 1st day, SCS on 2nd day)

• Round 1 (SCTF = Solidity Capture the Flag):

There will be four questions with increasing difficulty. Team can proceed to the next question after completing the previous question. There is **NO** time-bound for any question.

In case of any team having time left over after completing the questions, will be awarded bonus points in overall competition at the end of the round. Correct solution gets the highest grade. Overall time of submission will rank higher than other teams in case of tie between the teams. All teams will progress to the next round regardless of points due to the combined system (explained below)

• Round 2 (SCS = Smart Contract Speedrun):

There will be three questions with increasing difficulty. These questions are scenario-based which will require participants to write a smart contract to solve the given scenario and pass the test cases. This is a development-based round unlike SCTF which requires specific and technical knowledge of contracts. There will be a combined time bound. Lowest gas fee holds most points and vice versa. Least memory consumption holds the most points and vice versa.

- Combined system
  - All teams will progress to the final round (SCS)
  - o SCTF round points (including bonus points) are calculated.
  - o SCS round points are calculated.
  - Combined total points of SCTF and SCS rounds are added.
  - Top teams having highest points are considered as position holders

#### **Team Formation**

Each team can have a maximum of 2 members.

- Internet access will be **allowed** throughout the competition venue just to access development environment such as Remix IDE and MetaMask.
- Teams found using ChatGPT, Google Bard or any other Generative AI website will be disqualified.
- Mobile usage is strictly **prohibited.**
- Collaborating with other groups in any sort of way will lead to disqualification
- Equipment, other than provided, are **NOT** allowed during the competition
- Languages supported for each round
  - o SCTF (Round 1) Solidity
  - o SCS (Round 2) Solidity
- Edibles are **strictly prohibited** in the competition venue
- Any team will **disqualify** due to any of the reasons mentioned below
  - o Plagiarism
  - Usage of the internet during the competition (except for development purposes).
  - Disturbance or misconduct with any invigilator or fellow competitors
- Teams are **NOT** expected to bring the laptops with them in the competition because PCs will be provided in the lab venue, communicated through the mail beforehand.
- There is no question paper for any round. All instructions and questions will be provided in the competition portal.
- Competition will be started on the stated time. All participants are expected to arrive on time or earlier to get a head start on instructions.
- Submission will be done using a portal provided by the Organizing team.
- The organizers reserve the right to modify the rules or competition parameters in the event of unforeseen challenges, technical difficulties, or circumstances beyond control.

Any changes will be communicated promptly to all participants to ensure fairness and transparency.

# **Database Design**

#### **Overview**

This competition is designed to challenge students' skills in creating efficient and effective database designs. Participants will tackle real-world scenarios, showcasing their ability to model data, normalize databases, and implement solutions using SQL.

#### Rounds

This competition consists of two rounds.

Round 1: Database Design, Participants receive a scenario. They create an ERD, relational schema, and normalize the database up to 3NF.

Round 2: DDL and DML Implementation, Participants are presented with a complex scenario. They write DDL, DML and PL\SQL statements to implement the database structure and perform required operations.

#### **Team Formation**

Each team can have a maximum of 3 members.

- Internet is allowed, but only for **Competition Tools**.
- Mobile usage is strictly **prohibited**.
- Collaborating with other groups in any sort of way will lead to disqualification.
- Equipment, other than provided, are **NOT** allowed during the competition.
- Tools supported for each round:
  - Round 1 Only Drawio or SmartDraw
  - Round 2 Only Oracle SQL developer or My SQL.
- Decision of the Judges will be final.
- Submissions will be taken using GCR (Google Classroom).
- Edibles are **strictly prohibited** in the competition venue.
- Any team will **disqualify** due to any of the reasons mentioned below:
  - o Plagiarism
  - Usage of internet during the competition (Except the websites recommended to use)
  - Disturbance or misconduct with any invigilator or fellow competitors
- Teams are NOT expected to bring the laptops with them in the competition because PCs will be provided in the lab venue, communicated through the mail beforehand.

- Competition will be started on the stated time. All teams are expected to arrive on time or earlier to get a head start on instructions.
- The organizers reserve the right to modify the rules or competition parameters in the event of unforeseen challenges, technical difficulties, or circumstances beyond control. Any changes will be communicated promptly to all participants to ensure fairness and transparency.

## Hackathon

#### **Overview**

Welcome to the Think Creative Hackathon, a dynamic two-day event dedicated to fostering innovation, problem-solving, and creativity. This competition challenges participants to think critically, collaborate, and present inventive solutions to real-world problems.

#### Rounds

The competition consists of a single round distributed throughout two days:

- Day 1: Participants will be given a theme and brainstorm for ideas.
- **Day 2:** Participants will prepare presentations alongside prototypes of their ideas (Just UI on Figma or any other platform), evaluated based on both.

#### **Team Formation**

Each team can have a maximum of 4 members.

- Internet access will be allowed throughout the competition venue.
- Participants can use any Programming Framework they wish
- The decision of the Judges will be final.
- Instructions will be provided using GCR (Google Classroom).
- Edibles are **strictly prohibited** in the competition venue
- Any team will be disqualified due to any of the reasons mentioned below
  - o Plagiarism
  - Disturbance or misconduct with any invigilator or fellow competitors
- Teams are **required** to bring the laptops with them to the competition. All required software must be available on the laptop beforehand.
- The competition will be started on time. All teams are expected to arrive on time or earlier to get a head start on instructions. Strict Punctuality will be observed.
- The organizers reserve the right to modify the rules or competition parameters in case of unforeseen challenges, technical difficulties, or circumstances beyond their control. Any changes will be communicated promptly to all participants to ensure fairness and transparency.

## ChatCraft

## **Overview**

The ChatCraft competition will test the limits of the technical AI knowledge and ingenuity of the participants. This competition offers a platform to showcase your skills, so polish your abilities and prepare to compete!

The participants will be required to develop a working prototype chatbot that correctly answers queries according to a specific scenario, which shall be revealed on competition day. The training data for the given scenario will be provided to all participants.

#### Rounds

The competition consists of two rounds:

Round 1: Participants will have to fine-tune a model (provided by Team Chatcraft) as per the task requirement using raw data. (Difficulty level: Medium, Time: 2hrs)

Round 2: Qualified participants will have to build a chatbot from scratch for the specific purpose/task using raw data. (Difficulty level: Hard, Time: 3hrs)

The winner and runner up teams will be decided on the basis of the below evaluation metrics:

Natural language processing, Deep learning	15%
Accuracy of responses	40%
Task completion	40%
Data processing	20%
Qualification %	70%

#### **Team Formation**

Each team can have a maximum of 3 members.

- Internet access will be allowed throughout the competition venue for the submission of codes.
- Participants may **NOT** use a generative artificial intelligence API (e.g. OpenAI) as the backend for their chatbot.

- **ONLY** the Python programming language (through the **Anaconda** distribution), as well as relevant 3rd party libraries (nltk, PyQt5, spaCy, scikit-learn, TextBlob, and related libraries) will be available on each lab machine.
- Participants may use additional training data other than the provided dataset for training their application.
- Participants will be required to submit their working applications on a specific Github repository for evaluation.
- Teams found using Chat GPT, Google Bard or any other websites will be disqualified.
- Cell phone usage is strictly **prohibited**
- Collaborating with other groups in any way will lead to **disqualification**
- Edibles are **strictly prohibited** in the competition venue
- Any team will **disqualify** due to any of the reasons mentioned below
  - o Plagiarism
  - Usage of internet (except for Github) during the competition
  - Disturbance or misconduct with any invigilator or fellow competitors
- Teams are **NOT** expected to bring the laptops with them in the competition because PCs will be provided in the lab venue, communicated through the mail beforehand.
- Competition will be started on the stated time. All teams are expected to arrive on time or earlier to get a head start on instructions.
- The organizers reserve the right to modify the rules or competition parameters in the event of unforeseen challenges, technical difficulties, or circumstances beyond control.