# PROGRAMMER'S INC

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# HACKATHON

Hackathon is an app and web development contest during Quark 2018.

The apps can be developed in Java, Node.js, Python, Ruby, Bootstrap etc. The event will go on for 24 hours. A theme shall be provided as a base to build your hack. The theme would be provided on spot and the contestants would be given the freedom to choose whatever they wish to build, as long as it is related to the main theme. On the first day, the participants will be provided with the theme, guidelines and sufficient time would be allocated to plan the project. The judges will be available to clarify any doubts and questions regarding the event. On the second day, the teams will be expected to present their projects to the same judges, who will refer to the criteria (as mentioned below) to mark them.

# HACKATHON

Team Size: 4

Rules:

- You can code in any language of your choice.

- Use of internet is allowed.

- Inter-team discussions are not allowed.

- If any one of the rules is broken, the entire team will be disqualified.

- Knowing to program on Android and making use of services like Google Maps on the Android app and Web app will be of advantage to your team.

Judging Criteria:

- Uniqueness and innovative skills.

- Potential and Sustainability.

# CODEJAM

Do you believe not just in writing code but making it more

efficient? If yes, this event is for you. Quark present to you a competitive programming event. Rack your brains to solve puzzles and real world problems. Compete with people all across the nation and show off your programming skills

Judging Criteria for both the rounds:

Participants will be judged based on the number of test cases their

program gives the correct answer for. Judging will be done via the

online judge.

# CODEJAM

Team size: 1

Rules :

- You are required to print the final output. Sample output format will be provided in each problem statement.

- All the major programming languages are permitted. The participants will be judged on both correctness and time of submission of the solution.

- Use of internet, other than accessing Code chef, is prohibited.

- Any participants if found using any unfair means will be disqualified from the event.

- The decision of the organizers in declaring the results will be final. No queries in this regard will be entertained.

# BITS CTF

Bits CTF is a computer security contest targeted at anyone with an interest in computer science. The game consists of a series of challenges where participants must reverse engineer, break, hack, decrypt, or do whatever it takes to solve them. The challenges are all set up with the intent of being hacked; making it a great way to get some hands-on experience. The objective of the game is for to gain as many points as possible by solving these challenges. This is a jeopardy-style CTF with multiple categories of challenges.

Duration: 36 hours.

Team Size: up to 4

Judging Criteria:

- Participants will be judged on the cumulative points over the entire set of problems.

- In case of a tie, it will be sorted by adding cumulative time of all the solved questions.

# BITS CTF

Rules:

1. The competition is an online jeopardy style CTF with multiple categories of challenges, accessible from Internet which has a

duration of 36 hours.

2. The competition can be played by individuals or groups (max team size of 4), only one account per team.

3. The participant must provide a real point of contact for future

notifications or claim the prize.

4. Participants that behave inappropriately will be immediately disqualified, including:

- Share solutions or hints.

- Attack computers or applications not designated by the competition.

- Attack other participants.

- General bruteforce attacks over online platform.

- Duplicated accounts.

- Other things we consider to be unfair.

# BITS CTF

5. There is no need to use tools such as nmap, sqlmap, dirbuster, nikto, nessus,   etc., each challenge is built to be solvable without those kind of tools.

6. Participants are ranked by score and speed.

# REVERSE CODING

This event will push your logical, deductive and mathematical skills to the limits. Be the Bond of programming and figure out what is the hidden source code by looking at its behaviour on your inputs. The participants will be provided a portal with a 'black box' function, and an input template. The participant can generate as many outputs on any desired input to guess what exactly the hidden source code is doing (e.g. calculating the nth Fibonacci number for every input n.) and code it. The portal will test your function on several test cases, and award a score accordingly. The score will vary depending on the difficulty level of the problem. The participants are responsible for bringing their own laptops and ensuring that they are sufficiently charged for a 3-hour event.

**Judging Criteria:**

Participants will be judged on the cumulative points over the entire set of problems. In case of a tie, it will be sorted by adding cumulative time of all the solved questions.

# REVERSE CODING

**Rules:**

- Almost all languages supported on Hackerrank are allowed.

- Any participants if found using any unfair means will be disqualified from the event.

- Each program will be tested based on our critical test data. However output and input should be exactly as specified in the samples provided.

- Internet connectivity, other than for accessing Hackerrank, is not allowed.

- The decision of the organizers in declaring the results will be final.

No queries in this regard will be entertained

# CRYPTIC ENIGMA

Do you like breaking codes and solving ciphers? Would you like the chance to use your mathematical and programming skills to win some great prizes?

Then the Cryptic Enigma Challenge is for you!

This is an interesting contest in the area of Cryptography hosted on Hackerrank. The participants shall use their deducing skills, cryptography and programming skills to decrypt a set of messages provided.

Duration: 3 hours.

**Team Size: 2**

# CRYPTIC ENIGMA

Judging Criteria:

The team with the highest number of points at the end of the contest as given by the online judge wins. In case of a tie, time of submissions of the solution will be considered. Cryptic Enigma

Rules and Regulations:

- Important: You are required to print the final output. Sample output format will be provided in each problem statement. All the major programming languages are permitted.

- Any of the previous problem's answer may be a hint for subsequent problems.

- Please do not discuss strategy, suggestions or tips in the comments during a live contest. Posting questions clarifying the problem statement is permitted. Discussing problems or any aspect of problem, on any other platform on web, on identification, will result in disqualification.

- If any kind of plagiarism if detected during or after the contest would immediately result in disqualification for any kind of prizes.

- In the event of any dispute regarding the Rules, conduct, results and all other matters relating to the competition, the decision of the judge(s) shall be final and no correspondence or discussion shall be entered into.

**NOTE: Use of internet is allowed during the contest.**

# CODE-GOLF

Description : Write the shortest piece of code possible as a solution to given problem statement. Shorter the code, more the points you get. The solution should also be elegant in terms of time complexity!!

Scoring: The score will be considered as the number of characters in your source code. More the characters higher the score. Mind you, you have to score the least to win this game. You also need to adhere to the time constraints of the problem to get more points.

Rules:

1. Individual Event

2. Use of Internet is allowed.

3. Any language can be used.

4. No plagiarism will be allowed, and if caught the decisions lies in hands of organizer and will be final and binding to all.

5. Correctness and Time of Submission will be taken into account in case of tie.

Any query regarding language issues, wouldn't be entertained. Some languages might have advantage over the other, but assume it to be a part of the game.