



Participation Rules*

* Rules could be altered by the organisers

Participants for Code 19

Participant

Once you register, you can contribute your plans or product idea along any of the themes you wish to pursue. CODE19 is open to all people as individuals and teams.

Mentor

Mentors and guides can help participants sharpen their product ideas and convert them to successful products that will aid our fight against Coronavirus. Once you fill-up the form, mentors will be requested to provide more information on their background

Judge

CODE19 is an open competition where a public vote determines the winners.

CODE19 Plan

- Working on solutions through brainstorming, ideations, wireframes, designs, developments and prototype testing.
- Competing for the most votes in the end and winning the prize money.

Who Can Participate in CODE19?

You need to sign up on **www.code19.in** first to participate. Once you register, then either you can participate as a mentor where you fill out a form or as a participant. The latter will lead you to the HackerEarth website.

- No, there is no criteria, no age limit. Anyone with enthusiasm, time and internet access can participate. You need to be committed and passionate.
- All nationalities, ethnicities and gender are welcome. Please consider the Code of Conduct: <https://hackcodeofconduct.org/>
- Teams: The number of participants in the Hackathon is limited to 10. The number of participants per team is unlimited. We recommend dividing a huge team into 2-3 subgroups so one can effectively work out a solution within the time framework.

CODE19 Hackathon Process

- You need to upload a video of your pitch and demo (maximum 2 minutes) and link it to your HackerEarth project.
- We are mainly looking for technical prototypes, however other ideas and results are welcome as well.
- Please do upload all of your information and material to HackerEarth (Code via GitHub or other repositories).
- Please make sure that your project is well documented.
- Everyone should be able to test your project and be able to develop it or build on it.
- There will be open voting at the end mixed with a jury to assess the most exciting projects.



CODE19 Themes

1. Medical Treatment and Testing

- Come up with technical solutions for reducing the severity of symptoms of COVID-19 among patients in India by focusing on testing and delivery of essential services.
- Build an IoT enabled digital assistant for surgeons, patients, and the likes throughout the patient journey. For instance, build dashboard and reporting tools for patient data monitoring or data backend decision-maker for surgeons with useful features like care plans, healing time estimation, patient feedback, or customized counseling for patients.
- Build an application for the widespread testing of Coronavirus in India. Enable medication adherence and monitoring for people under quarantine with a customized medication pack that is integrative to a home device, and generates reports, tracks medication adherence and patient recovery, and analyzes drug efficacy in chronic disease conditions.
- Build a custom AI chatbot or voice assistant bots for patient assistance, determine a line of therapy, and add some useful features to it.

2. Travel and Tourism

- Analyze the impact of COVID-19 lockdown on the tourism and travel industry. Build a predictive analytics model or a product to help the aviation industry and/or customers on ways to handle the COVID-19 crisis.
- Use your API adoption skills for this critical situation to build a travel dashboard that gives feedback/updates about travel safety, onboarding the safest route, nearest hospitals, prompt measures to be followed in emergency cases, and/or other infographics.

3. Mitigation: Isolation, Protection/masks and Social distancing in India

- Build solutions that enable isolation and social distancing. CCTV surveillance feeds may provide input to identify hotspots based on people density, auto-detect if any person is without proper equipment, and alert nearby officials.
- Use technology to enable effective supply chain management of protective equipment like masks, sanitizers, etc., to the general population as well as to the medical community.

4. Social life, Welfare and Awareness

- The entire world has gone remote right now and virtual availability is the need of the hour. What can bring people together virtually,

keeping social distancing in mind? Come up with ideas that can help working from home be fun and interesting, while maintaining productivity.

- The global economy has taken a hit, but is there a silver lining for traders and business people here? Use your technical skills to analyze current market trends and guide traders on potential opportunities that they must not lose out on. Can you help predict when the market will recover or help businesses build better strategy.
- The COVID 19 outbreak has forced the cancellation of trips, nights out, and large gatherings. Economic damage is mounting across the world and a lot of companies have been forced to permit their employees to work remotely. Can you help aid small scale businesses better adapt to the circumstances?

5. Research and Development

- While researchers identify and test the source and vaccine of COVID-19, can you build a platform to detect and diagnose coronavirus patients at the early stages? Use image processing, segmentation, and the likes to detect this lung infection.
- Think of cost-effective solutions for thermal scanning and large-scale area sanitization and sterilization or AI and IoT based solutions for contactless entry.
- Propose solutions that will help people have easy access to a COVID-19 diagnosis kit or provide people with low-cost masks.
- Develop solutions to predict the next area to be infected by the virus. Analyze the data around COVID-19 events and predict potential COVID-19 cases around the world on an everyday basis.
- Predict the propensity of flattening the curve by analyzing data trends across different countries. Derive insights to ascertain the true nature and impact of COVID-19 on the economy or human life.
- Accelerated work on development of vaccines. Partner / piggyback support entities like Gates foundation

6. Open Innovation for COVID-19

- Propose technologies and innovative solutions, bioinformatics, datasets, apps for diagnosis, and the likes, which can be leveraged for strengthening the fight against Coronavirus.
- Build a platform for connecting vulnerable, at-risk people with volunteers via a call center and task dispatch app to prevent further isolation and loneliness.
- Come up with ideas for a medical volunteer management database to make it easier to find people with suitable medical competencies based on their location and call them to action.
- Build a tracker system to offer real-time data to individuals and governments to enable citizens to self-monitor the situation and their

risk and recovery from home in real-time.

- From remote conferencing tech for events to wearables that urge users not to touch their faces, come up with start-up solutions to deal with the COVID-19 outbreak.
- Make algorithms to determine if a person needs a ventilator.
- Provide an automated solution for the ones who need it the most for assisting with daily responsibilities (eg., medication, childcare, and grocery shopping)

7. Education and Awareness – Learning must not stop!

- Propose and execute moonshot ideas to help learners of various universities and research institutes across the world to learn online.
- Enhance virtual meeting tools in an innovative way for work-life balance.
- Build a platform for virtual learning that can help inform people about current situations and suggest tips to follow on a real-time basis.

8. Industry

Recognizing the power of working together as an industry and bringing the talent and capabilities of our industries.

- Example

Indian Unicorn OYO Offers To Turn Hotels Into Quarantine Centres Amid Coronavirus

- Example

50 Ways Companies Are Giving Back During The Coronavirus Pandemic