

# #CODE19

## HACKATHON AGAINST COVID 19



organised by

**Motwani  
Jadeja**  
Foundation  
Entrepreneurship . Disruption . Innovation

**10.04.2020**

**www.code19.in**

**DECODE**

unseen Corona  
challenges  
in india

**ENCODE**

smart solutions

**WIN**

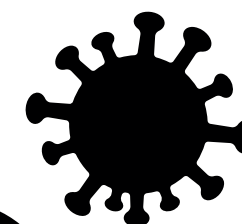
US\$10,000  
to realize  
your solution



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presents

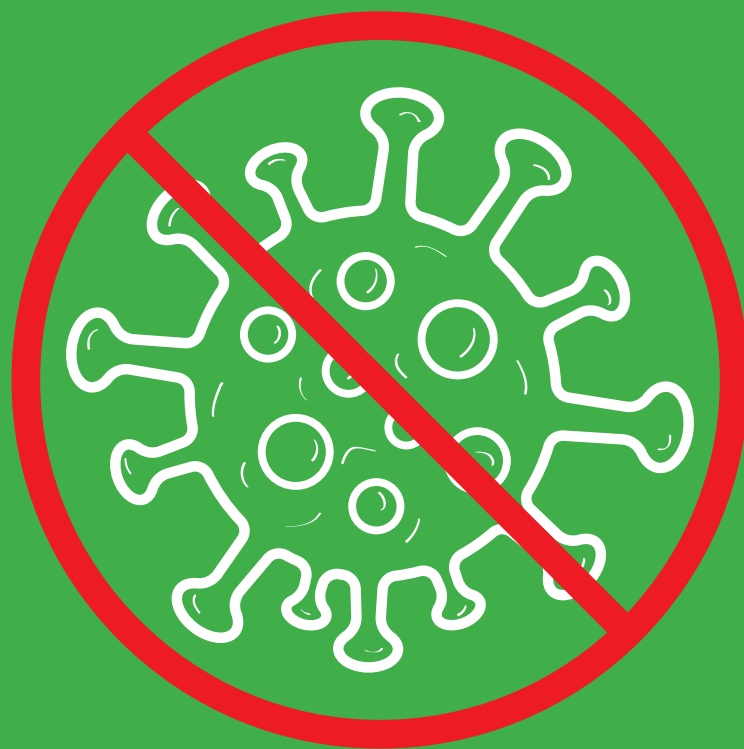


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[www.code19.in](http://www.code19.in)

[#code19india](https://twitter.com/code19india)



## Intro to CODE19

The Motwani Jadeja Foundation and MITLI is bringing together the best minds in a 72h online hackathon event called CODE19 to find solutions to India's challenges against the menace of Coronavirus. The event will empower participants to collaborate with mentors, subject matter specialists, data sources and a network of collaborators in the quest for solutions against Covid-19.

This 72h non-profit online hackathon aims to create open-source projects that help solve the most pressing problems of the current crisis in India. We want to build on existing solutions and technologies for efficiency and to enable sustainable impact after the hackathon to take projects to the next level and implement them for our daily lives and work.

Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus. Many people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. However, older people, and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness.

The best way to prevent and slow down transmission is to be well informed about the COVID-19 virus and how it spreads. Protect yourself and others from infection by washing your hands or using an alcohol-based sanitizer frequently and not touching your face. The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes, so it is important that you also practice respiratory etiquette (for example, by coughing into a flexed elbow).

At this time, there are no specific vaccines or treatments for COVID-19. However, there are many ongoing clinical trials evaluating potential treatments. The latest statistics indicate that COVID-19 has infected over 950,000 people across 206 countries and caused over 46,800 deaths as of April 3, 2020.





## The Motwani Jadeja Foundation Imperative

The Motwani Jadeja Foundation and its think tank MITLI supports a global network of influential thought leaders, academics, government officials and technology industry innovators. To overcome the challenges of COVID-19, we enable the collaboration, expertise and skills of several thousand technological partners, scholars, innovative minds and specialists.

COVID-19 has developed into a global crisis. In a relatively short period, with one of the world's largest network of international technology specialists, MITLI can bring together unique crowdsourced ideas to save our planet. Although COVID-19 is a global problem, we would like to focus on solutions developed for or from India.

India has one of the world's largest population of mobile users with 600m mobile users and is acknowledged for its talents in academia, NGOs and the public and private sectors including in the technology sector. We welcome technology developers, social workers, academics, NGOs, technology and business professionals, businesses, teachers, students, essentially anyone located in India or internationally who would like to help us find and solve problems.

## The Concept of a Hackathon

A hackathon (also known as a hack day, hackfest or codefest; a portmanteau of hacking marathon) is a design sprint-like event; in which computer programmers and others involved in software development, including graphic designers, interface designers, project managers, domain experts, and others collaborate intensively on software projects.

The goal of a hackathon is to create functioning software or hardware by the end of the event. Hackathons may have a specific focus, which can include the programming language used, the operating system, an application, an API, or the subject and the demographic group of the programmers. However, in this case, there is no restriction on the type of software being created.

## Uniqueness of an online Hackathon

Usually, a hackathon is an event where many people physically gather together. Due to the COVID-19 crisis, many events have shifted virtually. In March 2020 the Zürich Hack in Switzerland hosted its first online hackathon of over 72 hours with thousands of participants. A week earlier, in Germany – in cooperation with the government – the largest hackathon in Europe took place with over 44,000 participants.







## Why CODE19?

- Online hackathon:  
individuals can participate from the comfort of their own home
  - Open source solutions:  
crowdsourced solutions could readily be available for scaling and implementation
  - Prize money worth US\$10.000
- Expected Outcome from Code 19 India  
The outcome shall be qualitative prototypes, which are open-source based and can help to tackle a problem during or after the COVID19 crisis. The focus is on developing solutions quickly and applying them in everyday life.

## The Context and Background

India had 2562 confirmed cases of Coronavirus as on Friday, 03 April 2020. This number is deceptively low since India has not tested a large number of its population. The current criteria for testing patients in India for Coronavirus is very stringent and tests are conducted only in patients who present multiple symptoms.

But cases are on a rise even as the country is on a 21-day lockdown. India's cities are dense and heavily populated and the country figures amongst the lowest spenders in healthcare in the world. Less than 3.5% of the country's GDP is spent on healthcare. India is also the second most populous country in the world. It is therefore easier for the virus to spread quickly in India.

All new crisis requires a new set of ideas and mitigation strategies. Hence it is our collective responsibility to put our brains together to come up with new ideas and solutions to fight the virus. This is a platform to bring such bright minds together.



## 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 outs, 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

### **Tentative CODE19 schedule** (all times below are IST)

#### **Friday, 10th of April 2020 (Good Friday)**

- 6PM Sign-up Deadline:  
Last chance to sign up for #code19india
- 7 PM Slack access details are sent
- 8 PM Team sign-Up (platform TBD)
- 8.30 PM Opening Ceremony with welcoming speech  
by Asha Jadeja Motwani

Opening Participants will be encouraged to form teams through #code19india main Slack workspace to decide on an idea by a deadline, after which work begins.

- 9 PM Start hacking!

#### **Saturday, 11th of April 2020**

- 12PM Online Yoga with Zubin Atré on YouTube Live
- 6PM Meditation (Yoga Nidra) with Manish Poddar
- 8PM Live Interviews / Session with Mediapartner on YouTube

#### **Sunday, 12th of April 2020**

- 12PM Online Yoga with Zubin Atré on YouTube Live
- 6PM Meditation (Yoga Nidra) with Manish Poddar
- 8PM Live Interviews / Session with Mediapartner on YouTube

#### **Monday, 13th of April 2020 (Easter Monday)**

- 12PM Online Yoga with Zubin Atré on YouTube Live
- 6PM Meditation (Yoga Nidra) with Manish Poddar
- 9PM Project Submission Deadline on HackerEarth
- 11PM Open voting starts:  
Our community votes for the best projects

#### **Tuesday, 14th of April 2020**

- 9PM Announcement winner of hackathon
- 9.30PM Closing speech by the organizers  
and Ash Jadeja live on YouTube





## Organizers and Partners

### Motwani Jadeja Foundation

Motwani Jadeja Foundation is a non-profit, distributed, global venture fund designed to transform entrepreneurial individuals into creative change makers. The start-up portfolio is a reflection of this ethos. The Motwani Jadeja Foundation aims to support and empower entrepreneurs to enable exponential change. It is industry-agnostic and particularly cares about impact investing in education, the maker movement and women's rights.

### HackerEarth

HackerEarth provides enterprise software solutions that help organizations with their technical recruitment needs. HackerEarth has conducted 1000+ hackathons and 10,000+ programming challenges to date. Since its inception, HackerEarth has built a developer base of over 3 million+. HackerEarth has raised nearly \$5 million in funding over three rounds. Today, more than 750 customers worldwide use its Assessments platform, including Amazon, Walmart Labs, Thoughtworks, Societe Generale, HP, VMware, DBS, HCL, GE, Wipro, Barclays, Pitney Bowes, Intel, and L&T Infotech. HackerEarth is backed by GSF Global and Angelprime.



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