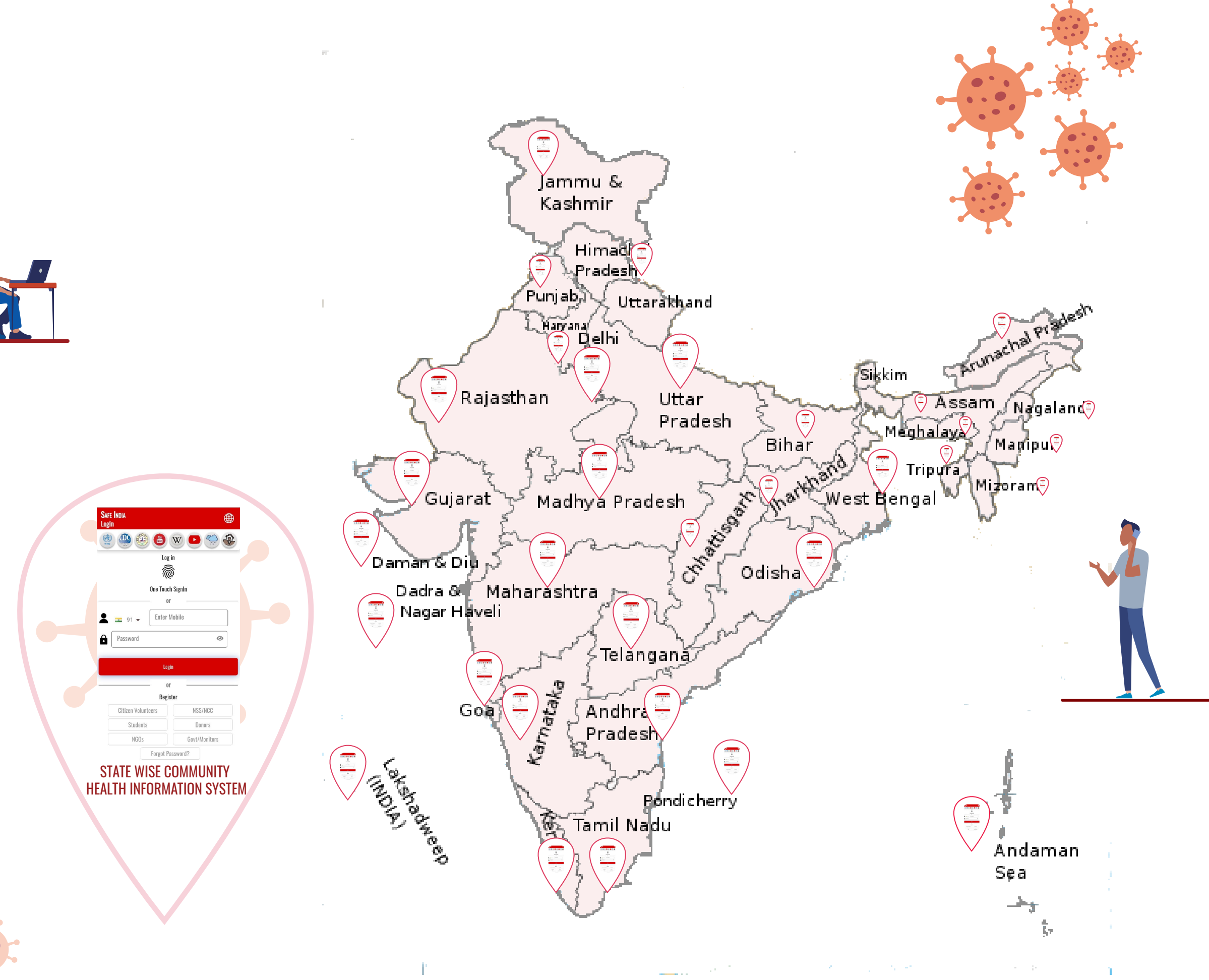# COVID-19 NATIONAL BIO INFORMATICS ONLINE HACKATHON FOR FULL STACKERS

www. covid19hackathon.in

REGISTER BY 26th APRIL, 2020 | HACKATHON 27th APRIL- 6th MAY, 2020
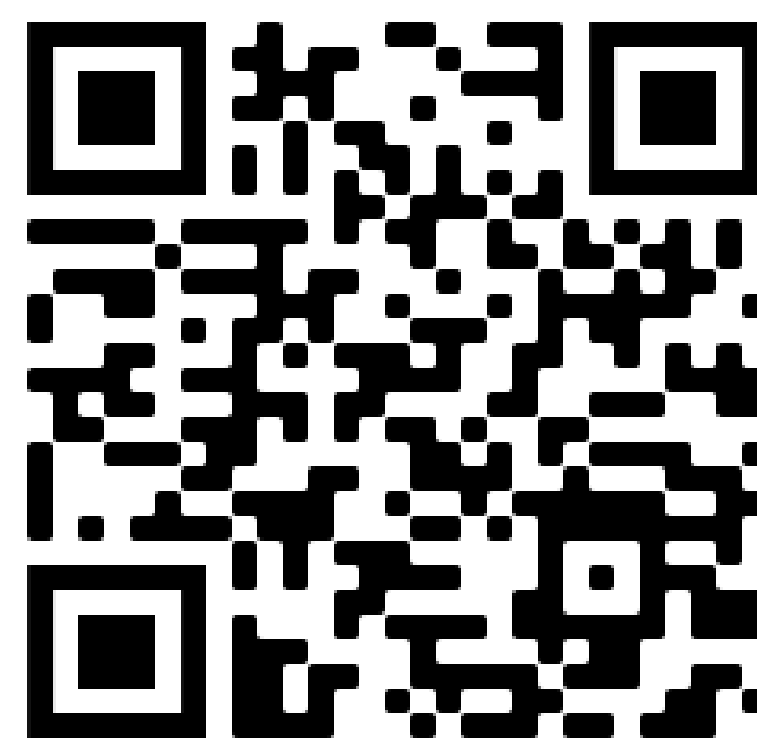
Challenging Full Stackers to build community health Information system Apps & mobile responsive web for Indian states.

STATE WISE COMMUNITY HEALTH INFORMATION SYSTEM

CASH PRIZES & AWARDS FOR BEST NATIONAL & STATE FULL STACKERS

OPEN TO: FULL STACK DEVELOPERS | STUDENTS | IT FACULTY | IT PROFESSIONALS | STARTUPS

Scan to Register

https://forms.gle/RavLXGF9W2q3478Z9

ELIGIBILITY

All students & faculties of Computer Science, Polytechnics, IT, Engineering institues, Arts & Science Colleges, startups, & all IT full stackers strong in app and mobile responsive web development.

TEAM SIZE & COMPOSITION

One full stacker with good knowledge in Android studio app development and ability to publish in google play store & online. He/she can avail support from other students, IT professionals and faculties to complete the task.

WINNING GUIDELINES

Release APK and mobile responsive web must be submitted for publishing in our google play store and web hosted. The modules developed must work smoothly. The Apps will be published and web will be hosted for updation during the first/ second and final round.

ADDITIONAL GUIDELINES

- Full stackers can use open source codes from github, stack overflow and other sources with acknowledgement .
- Must use APIs of google maps, Calender, youtube, opendata and Other.
- Ensure app meets all the google play store publishing guidelines.
- App must work in Android smartphones with version 7 - 9.
- The Android X version with material design will be highly perferred.
- Open Source native fonts & icon is highly recommended.

TECH STACK LIMIT

Android studio app and Mobile responsive web must be developed using XML, JAVA, PHP, MYSQL for App, HTML, Angular JS, PHP, MYSQL For web.

TECH SUPPORT FROM THE ORGANIZERS

- Apps will be published in Organizers Google playstore for evaluation.
- Mobile responsive web will hosted in organizers domain and cloud servers.
- Limited tech support shall be availed for second & third publishable app and web versions.

DISASTER RISK MANAGEMENT FREE APPS FOR REPURPOSING

SAVE ODISHA   SAVE INDONESIA   SAVE MOZAMBIQUE

PROBLEM STATEMENT

COVID 19 Pandemic has infected millions, killed lakhs worldwide forcing the entire global population into a complete lockdown bringing bustling economy to a grinding halt with an economic loss of nine trillion dollars so far. Social distancing and lockdown have been the only way to slowdown infection worldwide including India. Unprecedented global scale of lockdown has made all countries scramble to find ways to effectively coordinate the response to manage and stamp out the disease. All best known information technological tools which work best under normal exigencies to tackle health or disasters or supply chain management tools even in most advanced countries have been rendered inadequate to handle this unprecedented global crisis in modern history. Central and State governments of India have traditionally relied upon fragmented technological adoption which has now become a nightmare to coordinate between multiple departments and multiple ministries with skeletal staff. Rapidly exhausting food stocks and economic ability of governments to feed the billion people and mounting economic losses are forcing governments to consider reopening the economic activity partially in non-infected areas of the country opening possibilities for further infection with unknown consequences if an adequate coordination solution is not put in place.

EMERGING SOLUTION OPTIONS

One of the first timely solutions the Government of India has come up with is the "Arogya Setu" a COVID -19 social distancing app helping people to avoid movement close to known infected persons, a step in right direction. However, there is a big gap and need for a fast track IT solution to develop a comprehensive app that can help in coordination. The best information tool to handle this pandemic is Disaster Risk Management (DRM) Apps and tools which facilitate coordination for preparedness, rescue, relief and rehabilitation which can be further repurposed, upgraded to support coordination among many if not all. In order to do this rapidly, one of the known approaches is running a hackathon on developing this tool based on freely available software in DRM, Health and others which can be replicated across the states in the country taking advantage of the vast pool of IT students and faculty by tapping into the Engineering institutes through AICTE and Special projects like spoken tutorials. One of the organizers, Climate Smart Technologies which has released DRM free android apps as part of their social commitments during Cyclone of Odisha, Cylone of Tamil Nadu, Kerala Floods, Indonesia Tsunami and Mozambique floods have agreed to let the hackathon users download their app UI/UX and logics to build additional comprehensive modules, provided they are acknowledged. Similar open source code, apps in health, DRM can also be used in this project with acknowledgement. As the Hackathon outputs are being done on social cause basis not on pure commercial benefit of any one or any one entity, the full stack developers will only submit their installable programs and not their source code, and they will be duly acknowledged for their contribution. This app and web sites can be a foundation for winners and other institutes to use as a base for developing improved and advanced versions. The aim is to start the process to build a comprehensive pandemic response app or web tools with various essential modules to support coordination. The only restriction is that the direct outputs or slightly modified versions shall not be used only for pure commercial purpose or profiteering of individuals or entities. This can be used for making it into an open source or partly paid through government projects or funds for social causes similar to apps developed using open source software.

SUGGESTED MODULES FOR INTEGRATION/ UPDATION IN TO THE EXISTING DRM APP.

1. Stranded Migrant labor tracking
2. Labor shelter mapping
3. Volunteers registration and assigning work
4. Public healthcare locations for COVID 19
5. Medical stores
6. First responders
7. Health workers assigning
8. Essential workers assigning
9. Patient input data on fever, symptoms etc
10. Doctor online appointment
11. Hospital admission
12. Toll free number integration
13. Cluster geofencing
14. Collection of funds
15. Collection of Relief materials food
16. Labs for testing and results
17. Home treatment and alarm system for routine
18. Food supply to isolated patients
19. Counselling for Patients and family
20. Government service linkages
21. Essential Service Transport pass
22. Personal Pass Service request
23. MSME COVID 19 related products
24. Support to unorganized sectors workers
25. Support to Orphans and vulnerable category

ADVISORY COMMITTEE

Dr. Dr. M. K. Surappa, Vice-Chancellor, Anna University, Chennai
Dr. L Karunamoorthy, Registrar, Anna University, Chennai
Dr. S. Seladurai, Additional Registrar, Anna University, Chennai
Dr. T. SenthilKumar, Dean, BIT Campus, Anna University, Trichy.

Dr. Kannan Moudgalya
Enoch and Mehras Metha Advanced Education Technology Chair and Professor, IIT Bombay.

Dr. Lakshmi Jagannathan
Chief Operating Officer , Derbi Foundation, Bangalore

Dr. S. Raja Samuel
Principal,
Madras School Of Social Work, Chennai.

Mr. Jeevanandhan Duraisamy
Founder & CEO
Climate Smart Technologies, Coimbatore

ORGANIZING COMMITTEE

Dr. A. Punchchikody, HOD, Pharmaceutical Technology Department
Dr. G. Annapoorani, HOD, CSE & IT Department
Anna University, BIT campus, Trichy.

Dr. Kannan Moudgalya
Enoch and Mehras Metha Advanced Education Technology Chair and Professor, IIT Bombay.

Mr. G. Jagan Karthick
Program Lead, Derbi Foundation,
Bangalore.

Mr. Antony Stephen
HOD - Social Entrepreneurship Department
Madras School Of Social Work, Chennai

Ms. Poaraneswari Ponnusamy
Managing Director,
Climate Smart Technologies, Coimbatore

www. covid19hackathon.in
covid19hackathon.in@gmail.com
covidhackathon.in.3
covidhackathonin Bioinformatics
covid19hackath1
covid19hackathon.in