Minority Programmers Presents
HACK COVID **THON**
19
Sunday April 5, 10:00AM EST
Friday April 17, 11:59PM EST
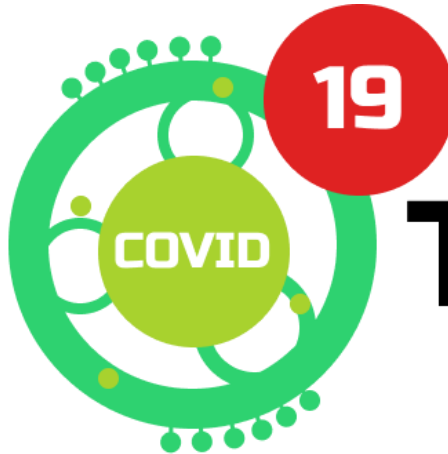
$1000 Grand Prize

For more info go to MinorityProgrammers.org/COVID

Win **MONEY** for developing coding solution to reduce harm/improve life during COVID-19 Pandemic

Who Are The Minority Programmers Association (MPA)?

https://minorityprogrammers.org/
We are a network of diverse STEM students, professionals, and hobbyists that develop software solutions for humanitarian problems.

Why Are We Sponsoring the COVID-19 Hackathon?

Channeling people's isolation, fear, and financial insecurity, into innovation through collaboration and economic incentivization.

Premise

In a race to end in COVID-19 in its track, the world is coming together to tackle the disease from all facets of life. We decided, in these tough economic times, to inspire people to use STEM to join the fight along with a **$1000 prize** on a weeklong challenge.

SIGN UP TODAY

Challenge

You have 13 days **(Sunday April 5, 10:00AM EST - Friday April 17, 11:59PM EST)** for your team (1-5 people) to develop a coding solution to reduce harm and improve quality of life during the COVID-19 pandemic.
You can join the challenge anytime before the submission deadline.

Your Task

Develop a software solution (as a shippable product) that addresses one or more of the following problems that have arisen as a result of the global COVID-19 pandemic.

Prize: $1000

Information on how to sponsor

When

Start Date: Sunday April 5th, 10:00 AM EST
End Date: Friday April 17th, 11:59 PM EST
Winner Announced: on YouTube: Monday, April 20th, 7 PM EST

Registration Process

First Method (Form - Easy)

Submit information on this form https://forms.gle/jMA21pfvScLMZke87
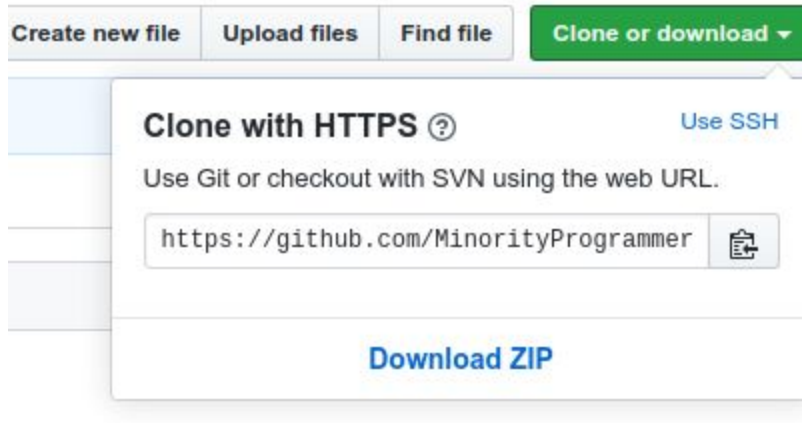
Second Method (Github Pull Request - Harder)

- Fork the covid19-hackathon repository

- Then clone locally

SIGN UP TODAY

```
$ git clone https://github.com/YOUR_USER/covid19-hackathon.git
```

Create new file   Upload files   Find file   Clone or download ▾

Clone with HTTPS ⓘ   Use SSH

Use Git or checkout with SVN using the web URL.

https://github.com/MinorityProgrammer 📋
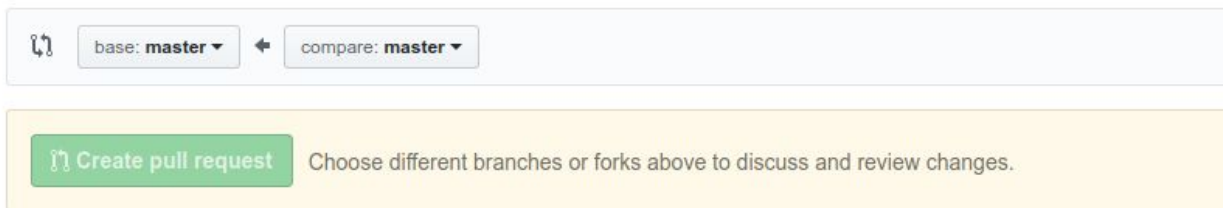
Download ZIP

```
$ cd covid19-hackathon
```

- Add in this format your details in the signup.md markdown file with your information in between the header

```
/covid19-hackathon$ git add .
/covid19-hackathon$ git commit -m "covid submission"
```
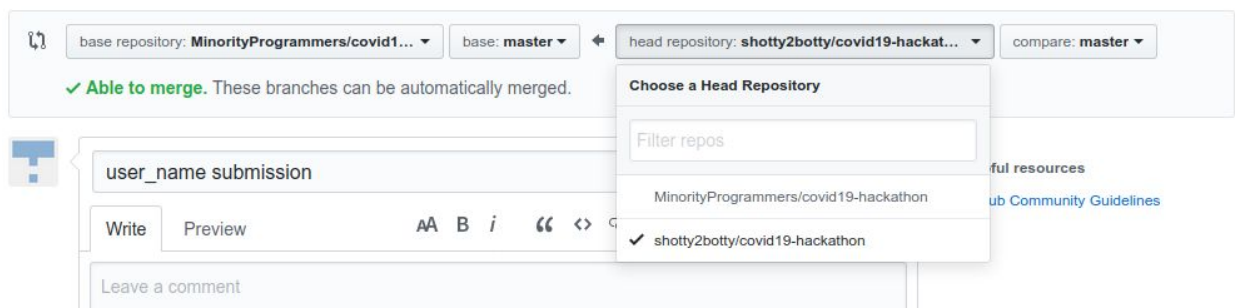
```
$ git push
```

Compare changes

Compare changes across branches, commits, tags, and more below. If you need to, you can also compare across forks.

⇅   base: master ▾   ◀   compare: master ▾

⇅ Create pull request   Choose different branches or forks above to discuss and review changes.

also compare across forks.

⇅ base repository: MinorityProgrammers/covid1... ▾   base: master ▾   ◀   head repository: shotty2botty/covid19-hackat... ▾   compare: master ▾

✓ Able to merge. These branches can be automatically merged.

Choose a Head Repository

Filter repos

user_name submission   ful resources

Write   Preview   AA B *i* ❝ <>   MinorityProgrammers/covid19-hackathon   ub Community Guidelines

Leave a comment   ✓ shotty2botty/covid19-hackathon

☑ Allow edits from maintainers. Learn more   Create pull request ▾

*The Github submission process will show your information publically

After You Submit

- You will be sent invitation to join Minority Programmers Association Github organization where you will be placed on team
- Join our Discord server to stay updated with competition updates, ask questions, and learn from other competitors!

Competition Guidelines

Team Guidelines

The more people consider for a team, the more the prize split. Your team can be up to 1-5 people. All members must register for the competition, and also specify their team name with fellow team members' github usernames. If you do not have team mates, you can find other members on our Discord server.

Rubric

Technical Complexity	Practicality	Presentation of Product
Quality of Features *Are your features meaningful and add to the overall quality of the product?*	Accessibility *Will your solution work in places most impacted by COVID-19? Mobile?*	UX Design *Does your UX Design consider a wide variety of applications.*
Comprehensive Project *Does your solution have comprehensive features or does it look like you just put something together?* *Do you tackle multiple problems at once concerning COVID-19?*	Effectiveness *Does it actually solve a problem concerning the pandemic?*	Code Cleanliness *Is your code easy to understand?*
Efficiency *Is your code efficient? Do you use an efficient algorithm?*	Portability and Usability *Is your code easy to run and works on multiple*	Originality of Work *Is your idea novel?* *Do you not plagiarize and*

	systems?	properly credit others for their contribution?

Submission Guidelines

All files must be submitted as a link in the Github submission form by Friday April 17, 11:59 PM EST

- Your own repo must have README.md file describing your solution
- There must be instructions on how to run your file and graphical user interfaces (GUIs are appreciated)
    - Specify Hardware/OS requirements if relevant
    - Terminal Commands, Website, Software Download, etc.
- Presentation of product (optional)
    - Powerpoint, YouTube Video, etc.

Summary Of Problem

Origins of COVID-19

Coronavirus disease 2019 or COVID-19 is an infectious disease that came to prominence after its first outbreak in the Wuhan province of China in December of 2019[1]. Four months later on March 11th, 2020, the World Health Organization, declared COVID-19 as a pandemic [2]. Since then there have been over 1,000,000+ reported cases, and 50,000+ confirmed deaths globally[3]. With reported cases in over 204 countries, this pandemic is forcing schools and businesses to close, economic insecurity, abrupt transition to remote work, isolation, stress on health care systems, and much more problems that cannot be enumerated. We at MPA have begun to list a wide array of problems with links so we can begin to get an idea of how we can tackle this problem from all perspectives.

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[1] "Q&A on coronaviruses (COVID-19) - World Health Organization." https://www.who.int/news-room/q-a-detail/q-a-coronaviruses. Accessed 30 Mar. 2020.
[2] "WHO Director-General's opening remarks at the media ...." https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020. Accessed 30 Mar. 2020.
[3] "Coronavirus (COVID-19) map - Google." https://www.google.com/covid19-map/. Accessed 30 Mar. 2020.

Mitigation of Transmission

- Health Education
- Self-Quarantining
- Forced Isolation
- Sanitization/Sterilization
- Germ Detection

Economic Assistance

- Affording Medical Care
- [Paying Bills](#)
- Provisioning of aid
- [Unemployment](#)

Logistics

- Health care worker transportation
- Transport of masks, medical equipment

Social Distancing, Isolation, Mental Health

- Activities/Hobbies
- Keeping Active/General Health Guides
- Mental Health Support

Global Impacts

- Migration Crisis
- World Trade
- Travel Restrictions
- Political Change

Early Detection

- Testing/Accuracy & Access
- Symptom Tracking
- Preventative and Early Treatment

Virus Tracking

- Prior background history of patients
- Tracking new death tolls and new cases
- Tracking unreported cases
- Predicting spread of disease

Clinical Care

- Care of elderly populations
- Safety of health professionals
- Accomodating for influx of cases
- [Racial Bias](#)

Law Enforcement

- Mass Surveillance
- Incarcerated Populations
- Enforcing Lockdown Laws

Research/Chase for Cure

- Studying COVID gene
- Protein folding
- [Artificial Intelligence](#)

Ideas and Resources

Examples of Potential Solutions

Application that
- promotes activity while in quarantine
- allows you to quantify the number of people you interact with
- detects when people congregate more than 10 at a time
  - Use camera and heatmap technology
- predicts the spread of coronavirus
  - Similar to challenge in Africa
- provides recommendations for sick patients
- has a checklist for symptoms of COVID-19
- tracks availability of testing
  - prioritizes testing based on severity of symptoms
- allows doctors to diagnose patients over the phone
- allows you to easily see changing store hours during the COVID-19 Epidemic
- allows you to see which areas in the world are currently on lockdown
  - Maybe feature that says TO and FROM and when or if you can travel
- allows you to see deals/promotions related to COVID-19
- allows you to track the CDC process for developing a cure
- has a data visualization set that shows that demographics of those who died as a result of COVID-19
- notifies of quarantine updates via text message

Existing Solutions/Tools

- Coronavirus Death Toll and Trends - Worldometer
- COVID-19 Overview | COVID-19 Dashboards
- The COVID Tracking Project
- Google COVID-19 Map
- Global research on coronavirus disease (COVID-19)
- Github Highilights Open-Source COVID-19 Projects

Suggestions from MPA Community

- On our discord server we will be continuously contributing new ideas, feedback, and help to anyone that wants to learn and create!

Announcing Prize

When

The prize will be announced on our YouTube stream, 3 days after the submission deadline (**Monday, April 20th, 7 PM EST**).

How Prize Will Be Awarded

If you have multiple people in your team, the total grand prize will be divided evenly amongst all winning team members.
If you are not in the United States please indicate so we can give prize according to standards of your country.

Claiming Your Prize

Check the YouTube video live stream to see the results. You will then be contacted by MPA executive members with ways to claim your certificate and prize money. Also awards and other accolades will be given to noteworthy participants.

Hackathon Tips

Choosing A Team

- Choosing front and back end developers. Researchers, Dreamers

Learn to Work With Others

- Learn Agile SCRUM Methodologies
- How to Work Remotely Effectively
- Version control

Technologies We Will Be Using

Github
- MPA Github Basics
- *GitHub, Inc. is a US-based global company that provides hosting for software development version control using Git.*

- Project Boards

Agile SCRUM Development

- MPA Agile SCRUM Crash Course

Social Media

- Discord
- GroupMe
- Zoom
- YouTube
- LinkedIn
- Twitter

How You Can Help Without Competing

Co-Sponsor Prize

The bigger the prize, the bigger the teams, and the more complex the solution. We at MPA would love to partner with organizations aiming to reduce harm by channeling the talents of coder's across the world through situational learning.

Benefits For Sponsorship

- Appear as ally for minorities and patron of innovation during time of crisis
- The more money the more professional hackathees will come to forefront and make more effective solutions
- Opportunity to invest in startup technology from competition
- Ability to recruit talented workers into your organization
- Continued partnership with MPA

Study This Hackathon

We at the Minority Programmers Association prioritize STEM education, believing that it is the key to upward mobility in the 21st century. We believe in the efficacy of project-based learning, group-learning, interdisciplinary teamwork, where the students use their passion as their primary motivation. If you are a data scientist, professor, or a student interested in collecting data regarding how the principles impact the software development process, contact Jack V, *Education Specialist*, jack@minorityprogrammers.org. We believe this particular Hackathon is interesting as it faces the challenge of both remote work and individual social distancing of the team.

Become A Resource

We need live TAs that can host sessions on Zoom/Discord/Twitch to facilitate questions that participants may have. We believe that competition should also create an ability to

teach others different technologies and we hope to build a rich live community of online resources from across the world.

Share With Community

If you are not competing you can also help the race to stop COVID-19 in its track in a through many means including.
- Sharing this hackathon flyer on social media
- Providing feedback in our discord throughout
- Helping the Minority Programmers to organize this event

Join MPA

Want to join the network of STEM professionals that is the Minority Programmers Association? No chapter near you? You can still be a mentor to youth, work on software projects, develop STEM curriculum, and contribute to all overall missions through our international network.

Start A Chapter

If you are interested in starting a MinorityProgrammers chapter at your college/school contact shot@minorityprogrammers.org with subject line entitled: Starting A Chapter At YOUR_SCHOOL

Judges

Want to participate as a judge? Email kush@minorityprogrammers.org a brief summary about yourself and why you want to be a judge with the Subject Line: Judge Application