ELECTION

Minority Programmers

<HACKATON>

Who Are The Minority Programmers Association (MPA)?

https://minorityprogrammers.org/
We are an international network of diverse professionals, educators, students, and hobbyists that unify together to combat humanitarian problems through software solutions with a project based approach to learning.

Why Are We Sponsoring the Election Hackathon?

Now more than ever people around the world are dissatisfied with the antiquated election systems, As programmers we feel like we needed to provide a platform to motivate other programmers to channel their isolation into a collaborative effort to design democratic systems that represent all voices in this modern age.

Benefits of Election Hackathon

- Channels Frustration into Innovation
- Bring Coders Together From All Backgrounds
- Opens Avenues to Discuss Injustice
- Long Enough to Develop Impactful Solution
- Promoting Interdisciplinary Learning: Bringing Tech into Social Space
- Allows Public to Motivate Coders to Develop Existing Ideas
- Networking Opportunity
- STEM Education
- Technical Support for Aspiring Programmers
- A Way to Collaborate During Pandemic
- A Constructive Way to Participate in the Democratic Process
- Opportunity for Students to Win Money
- Building Resume with Relevant Projects
- Recruitment Opportunity for Employers

Premise

In a race to tackle flaws in modern democratic systems, we decided, in these tough economic times, to inspire people to use STEM to join the fight along with a **$1000+ prize.**

Challenge

You have 17 days **(Friday October 16, 11:00AM EST - Sunday November 1, 11:59PM EST)** for your team (1-5 people) to develop a platform for your own democratic system for the citizens of the world to vote on issues and/or candidates. This is not meant to be a digitization of current voting systems, but rather your own redesign on global electoral systems through the facilitation of modern technology.
You can join the challenge anytime before the submission deadline.

Your Task

Develop a software solution (as a [shippable product](#)) that has its own democratic system for voting on issues and/or candidates.

Prize: $1000+

[Information on how to sponsor](#)

When

Start Date: Friday, October 16, 2020
End Date: Sunday, November 1, 2020
Winner Announced: on [YouTube](#): Sunday, November 8th EST

Registration Process

Register on Devpost

Register now on Devpost https://election.devpost.com/

After You Register

- You will be sent initial registration email
- Join our Discord server to stay updated with competition updates, ask questions, find your team and learn from other competitors, Like Our LinkedIn page!
- Find Your Team and Register here
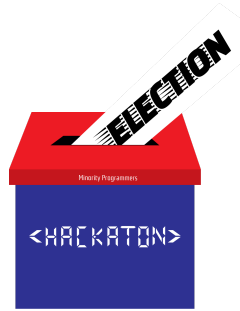- Attend office hours, workshops, and coaching

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 systemic injustices? 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 democratic voting systems?*	Effectiveness *Does it actually solve a problem concerning voting systems?*	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 systems?*	Originality of Work *Is your idea novel? Do you not plagiarize and properly credit others for their contribution?*

Submission Guidelines

All files must be submitted as a link by Sunday November 1st 11:59 PM EST

1. **Link to Demo video** (hosted on YouTube or Vimeo). Your video should be around 5 minutes long and include a demo of your working application.
2. **Repository access** to your working application for judging and testing. Include a link to your repo hosting the code and all deployment files and testing instructions needed for testing your project in a README.md file. (Repositories may be public or private — if your repository is private, share access with testing@devpost.com AND minorityprogrammers@gmail.com.
3. **Submission form on Devpost** before the deadline, Sunday November 1st at 11:59PM EDT.

Summary Of Problem

Background on Democracy

In theory, democracy means a system in which decision making is made in which all members of this institution have an equal share of power. This definition brings the following questions that have existed since antiquity; How do you become a member of this institution, who makes the decision to make these decisions, how do you quantify power and how do you divide power equally? While democracy can be traced to the prehistoric hunter gatherers where close knit communities could easily dictate daily activities based on majority rule, mass globalization has truly tested the scalability of democracy exacerbating problems seen in these ancient microcosms.

History of Democratic Systems

What we traditionally accredit as the first democratic system in a complex society is the Greeks, where the name, "demos" (citizen) 'kratos" (power of rule) , originated[1] Under this construct, Athens is seen as democracy's birthplace. While early systems may be described as aristocratic or oligarchic, the Greeks eventually introduced concepts like isonomia, and their rule, broadening ruling rights to more male citizens that do not have wealth. However, this in itself can be viewed as not a democracy as it favors a certain group of people.

Today, representative democracy is considered to be a characteristic of developed nations, in contrast to authoritarianism and oligarchy. Forms of representative democracy putting power in the hand of the minority throughout history. gave birth to the idea of universal suffrage (right to vote for all adult citizens).

Universal Suffrage

- 19th century British movement for universal suffrage (commonly understood as manhood suffrage)
- US Women's Suffrage Movement

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[1] https://www.moadoph.gov.au/democracy/defining-democracy/

- [Warren Court](#) Era of 1960s: One Man, One Vote, which led to the Voting Rights Act
  - Civil Rights Act of 1964 + Voting Rights Act of 1965
  - Rollback of Voting Rights Act in 2013
- Native American Suffrage (passed in 1924 but not fully implemented in all states until 1962)

Modern Problems in Democratic Systems

Approaching this modern age has been easily manipulated through the use of technology, which has further led to interference with the sovereignty of governments across the world. Over history, the voting system has always been interfered with, but with this modern age it has become more apparent. Voter disenfranchisement presentation can be seen vividly in the fight of minorities for secure voting rights.

Issues to Consider

Although we cannot begin to quantify the ways one can develop more democratic systems, we have devised these categories to help you either model your voting on an existing nation's structure (ex. US as a 2-party plurality system with voting beginning at 18 and some state-level restrictions for people who have been convicted of felonies), or create a new voting system entirely."design your own from scratch.

Electoral System

- **Plurality**: First Past-The-Post voting
- **Majority:** two-round, instant-runoff, plurality-at large, general ticket
- **Semi-Proportional:** Single non-transferable vote, cumulative voting, binomial
- **Proportional:** Part-list, single transferable voting
- **Mixed:** Majority bonus, mixed member proportional, parallel
- **Other:** Borda count, Approval voting, Condorcet Method

Direct vs Representative

- Which issues can be directly voted on? Which do we need a government role?
- How do we pick a representative? Where? How? How often?
- Ways to combine both the systems?

Registration

- Easily Accessible Identity Authentication System
- Eliminating Fraud
- Frequency of Registration / Updating Information

Time

- Vote On A Date, in Advance, or in Advance with Submission on Date
- Remote/Location Voting (Authentication/Accessibility Considerations)
- Pre-Voting Platform, final submission countdown

Disenfranchisement (Who Gets To Vote?)

- Age limits?
- Criminal Convictions?
- Citizens, Taxpayers, Governed?

Accessibility

- **Barriers to Entry:** Access to Internet, IDs, Transportation
- **Infrastructural:** Gerrymandering, Misinformation, Voter Suppression
- **Impairments:** UX+UI Considerations, Hearing/Visual

Transparency

- Public Vote Validation (w/ Anonymity)
- Data Visualization: Of Vote Distribution, history of Trends, Top Issues, Regional

Education

- Teach How to Vote + Use System
- Information on Elections
- Prevent the Use of Biased Information

Cybersecurity

- Potential for Platform to get Compromised
- Privacy on Who You Voted For While Maintaining System Integrity
- Data Storage

Ideas and Resources

Examples of Potential Solutions

Application that
- Allows voters to see candidates based on issues that are most important to them
- Allows authentication to SMS in order to vote
- Notification system for election
- Uses geo mapping and livetime selection to do representative democracy
- A petition system that quickly streamlines referendum initiatives
- Voting based on profiles
  - Instead of voting at a day, every voting person prioritizes their biggest issues and issues are addressed based on what is "trending"
- A platform that choose candidates based on debate performance
- A CMS system that allows people to apply to positions like president like a job (choosing most qualified person)
- Candidate registration system
  - Petitioning to get on Ballot
  - Background check system
  - Previous candidate history (prior elections
- Blockchain backed voting system
- Voting based on audience cheers
- Voting on budget based on percentage of pie interface and optimizing
- Voting for candidates based on policy (1 at a time), calculate best match, and then show candidate
- A voting system that approximates populations who are not voting

Existing Solutions/Tools

Voting Tools

- Election Buddy
- E-Ballot
- OpaVote
- Democracy Live
- Blockchain-Based E-Voting System
- USPS MailIn Blockchain Voting System
- STAR Voting

Voter Registration

- US Statewide Registration Systems
- List of Authentication systems

Resources for Research

- https://www.britannica.com/topic/democracy/
- https://interactive.aljazeera.com/aje/2019/how-the-world-votes-2019/index.html
- https://ballotpedia.org/Main_Page
- https://electioninnovation.org/
- https://en.wikipedia.org/wiki/Electoral_system
- https://electionline.org/

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, 7 days after the submission deadline: Sunday, November 8th 1PM 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 the 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.

How You Can Help Without Competing

Co-Sponsor Prize

The bigger the prize, the bigger the teams, and the more complex the solutions. We at the Minority Programmers would love to partner with organizations aiming to make a difference 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 Minority Programmers

For more information on sponsorship packages go here and contact minorityprogrammers@gmail.com

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, and 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*, minorityprogrammers@gmail.com. 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 Discord 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 through many means including.
- Sharing this #ElectionHackathon on social media
- Providing feedback in our discord throughout
- Helping the Minority Programmers to organize this event
- Contacting national news organizations
    - Tech: CNET, Engadget, YCombinator Hacker News, TechCrunch; etc.
- Contacting your local news organization
- Share on reddit (our reddit)
- Join the event on LinkedIn, Facebook, Devpost
- Support on GoFundMe

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 minorityprogrammers@gmail.com with subject line entitled: "Starting A Chapter At YOUR_SCHOOL"

Judges

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