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# Build Access and Entitlements into a Hosted Version of Augur

GSoC Project proposal for CHAOSS

## Personal Details and Contact Information

This section can contain the following:

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## Synopsis

- A brief summary of the project:
    - The aim of the project is to improve user experience and provide metrics as a service.
    - Increase CHAOSS project responsiveness to newcomers.
    - Provide metrics as a service for the CHAOSS community.
    - Integrate recommendations on the UI.
- Mentors: Derek Howard, John McGinnes, Sean Goggins

## Benefits to the Community

The project will help the users to quickly get an analysis of some small subset of their repositories. With login functionality the user experience will be improved. Under the project I will work to build and improve functionalities for hosted version of augur. As a future

development, the new version of Augur will make it possible to install a single instance for CHAOSS Community members to leverage for initial experimentation with CHAOSS metrics.

# Current Status of the Project

- The project currently extends the nascent CHAOSS project, https://github.com/augurlabs/augur_view, I will first understand the structure and working of it.
- Any improvements and features will be added as a feature enhancement to augur_view.
- The project will require me to set up the augur_view project and then build upon it.
- The frontend and infrastructure can be seen at https://github.com/augurlabs/augur_view. The login functionality, responsiveness, metrics as a service and other required functionalities will be added to this infrastructure.

# Goals

- We start by the augur_view, the frontend template for the project. As this is built on Flask, I'll be adding functionalities like login and associated access features.
- The next thing to work on will be develop the mechanism for users to see data for the repositories they wish listed.
- To increase the speed of data listing, I'll build a system to fetch data that is already collected for another user for some repositories, we would grant them entitlements to see those repositories immediately.
- Improve responsiveness and add other functionalities to provide metrics as a service quickly.

# Expected Results

- The project will have its user account and login functionality. Also, it will allow augur to quickly provide data to the users. The user experience and UI of the project will be enhanced. The project will help newcomers to easily use augur.
- I will also provide proper documentation to the provide that will help future contributors.

# Approach

- I will be using Python Flask to build the features listed above. As the project already has Flask infrastructure.
- For the UI, I will first have to understand the framework used and then make necessary changes to improve the UI. Based on the projects I have worked previously, I have an

experience to understand user behaviour and make changes to the UI so it is more helpful for the users especially newcomers.

- I have built a similar server that used Flask and hosted it. This personal project allowed the user to upload a large data file extracted from tableau and download specific required columns for analysis. Although the aim of the project was different, I used Flask to build the infrastructure and then implemented a basic UI. I can use my experience from my previous project and implement it for augur. The link to my project is: https://priyasrivastava.ml/. This personal project helped me understand the file structure of hosted flask projects. The knowledge from this helped me understand how modules will be added to augur_view.
- I have past experience from my personal experience on project frontend and enhance responsiveness. I can thus work on this project.
- The required learnings for the project will be to understand how the metrics is generated and data is listed to the user. I will then be able to build an algorithm to increase speed of response.
- I will set up the virtual environment, run it locally and then add the code for the required functionalities.
- I will write the documentation and get my work reviewed by the mentors.

# Timeline

The duration of each period can be a week or even two weeks.

| Period | Task |
|---|---|
| After proposal submission<br>[April 10 - May 6] | - Getting acquainted with the code base of augur_views and the procedure that needs to be followed to submit code and get it reviewed. |
| Week 1 and 2<br>[May 6 - May 27] | - Setting up the project locally and review the existing infrastructure.<br>- Understand the file structure.<br>- Discuss derived ideas and implementation techniques with mentors. |

| | |
|---|---|
| Week 3 and 4 | - Start working to build login functionality and user account.<br>- Start to improve responsiveness of the project alongside.<br>- Understand the project from a user perspective and then building the required account features accordingly. |
| Week 5 and 6 | - Assimilate the changes and improvements suggested by mentors.<br>- Write documentation of the newly added functionality.<br>- Further improvements required for the login functionality. |
| Week 7 and 8 | - Study and understand the data listing methods used.<br>- Derive an algorithm to list the required data for the user.<br>- Start working on methods to provide metrics as service. |
| Week 9 and 10 | - Code the metrics as a service algorithm.<br>- Functionality to notify the user<br>- Improve efficiency to provide the data quickly to the user. |

# About Me

I am a third year undergraduate pursuing B.Tech Electrical Engineering at Pandit Deendayal Energy University, Gandhinagar, India. My semester will complete in mid May leaving me enough time to work for my GSoC project. My reason to choose this project is that I was able to develop an initial understanding for the ideas stated because of my personal project I have worked on previously. With the support of the mentors and learning in the course of the program, I am confident I will be able to complete the goals for the project.

I interned with Times Internet in my third year (January 2022- April 2022). My work involved extensive use of React JS. The internship involved:

- Creating a web tool using Python Flask to generate and download specific data from large Tableau data sources just with a single click. I deployed the web tool to increase worker productivity within the department.
- Developing a web-based new-age online platform to track sales efficiency of the business with a real-time monitoring facility using React JS currently being used by the Sales POCs. Link
- Performed data analysis to build a restaurant ranking model to predict suitable sales offers to increase conversion rate.

I have worked with Java,and skills include: Python, Numpy, Pandas, Matplotlib, Seaborn, Sklearn, HTML5, CSS3, JavaScript, React, Node.js. Technologies: Google Cloud Platform, GitHub, git, Matlab,.

Based on my skills, I was selected to be a mentee for Google Cloud's Career Readiness Program, in which I learned Google Cloud technologies. I have built several web based projects and Google Cloud labs based projects. Some of them are listed in brief:

**HealthiHer** (Self Project) **|** *HTML, CSS, JavaScript*
*Project Link* | *GitHub*
- Developed a website providing awareness about women's healthcare hosted using GitHub pages.
- Implemented enhancements that improved web functionality and responsiveness. Integrated a meditation web app built as a feature.

**Corona Virus Voice Assistant** (Self Project) **|** *Python*
*GitHub*
- Built a voice assistant in Python that responds with the COVID-19 statistics using web-scraping.
- Implemented Speech Recognition & Python text-to-speech (pyttsx3) module. Used Regex pattern matching to respond with correct data by identifying keywords.

**Unipass CLI** (Self Project) **|** *Node.js*
*GitHub*
- Created Node.js command-line password generator. The CLI app generates a unique password and saves it to the clipboard. It supports custom length, symbols, and numbers and can save the passwords to a text file.

**Profile Badge Generator Web App** (Self Project) **|** *HTML, CSS, Javascript*
*GitHub*
- Developed a profile badge generator web app using HTML, CSS and Javascript. The responsive web app lets the user browse and upload a profile picture and download their profile badge to share on social media. Used by 80+ participants for Machine Learning workshop organised by IEEE Student Chapter PDEU.

My previous Open Source contribution include Hacktoberfest, GirlScript Summer of Code and Mexili Winter of Code. As an Open Source Contributor in the GirlScript Summer of Code program, I worked on projects NeoAlgo and RottenScripts. I contributed to the codebase using Java and Python Programming languages. The project Rotten Scripts is a collection of scripts for automation written in various programming languages. I improved documentation, resolved

bugs in the existing code base to improve features. For the project NeoAlgo, I developed efficient solutions to algorithmic problems and contributed 90+ lines of code to the existing code base using git. Based on my contributions, I ranked among the top 0.024% contributors after 2 month coding period.

For Mexili Winter of Code, I was selected as an Open Source Contributor for the first cohort of the program. During the month-long program, I contributed to projects in Python. I implemented and documented feature support. I improved code issues based on tests and mentor feedback. I contributed to the code base using tools- git and GitHub. During the contribution period, I also mentored my peers and discussed several implementations of resolving the issues.

Contributing to **CHAOSS** is my first time contributing to a major open-source project. As a part of the Outreachy contribution period, I came across Augur, where through the final application I got to know the project is participating in GSoC as well. I have successfully made 2 pull requests that got merged and raised 2  issues that I worked on. I focussed on working on issues that had a direct relationship with this project so that I could get more understanding of the documentation and understand the project. Here are links to the pull requests:

https://github.com/chaoss/augur/pull/1751

https://github.com/chaoss/augur/pull/1745

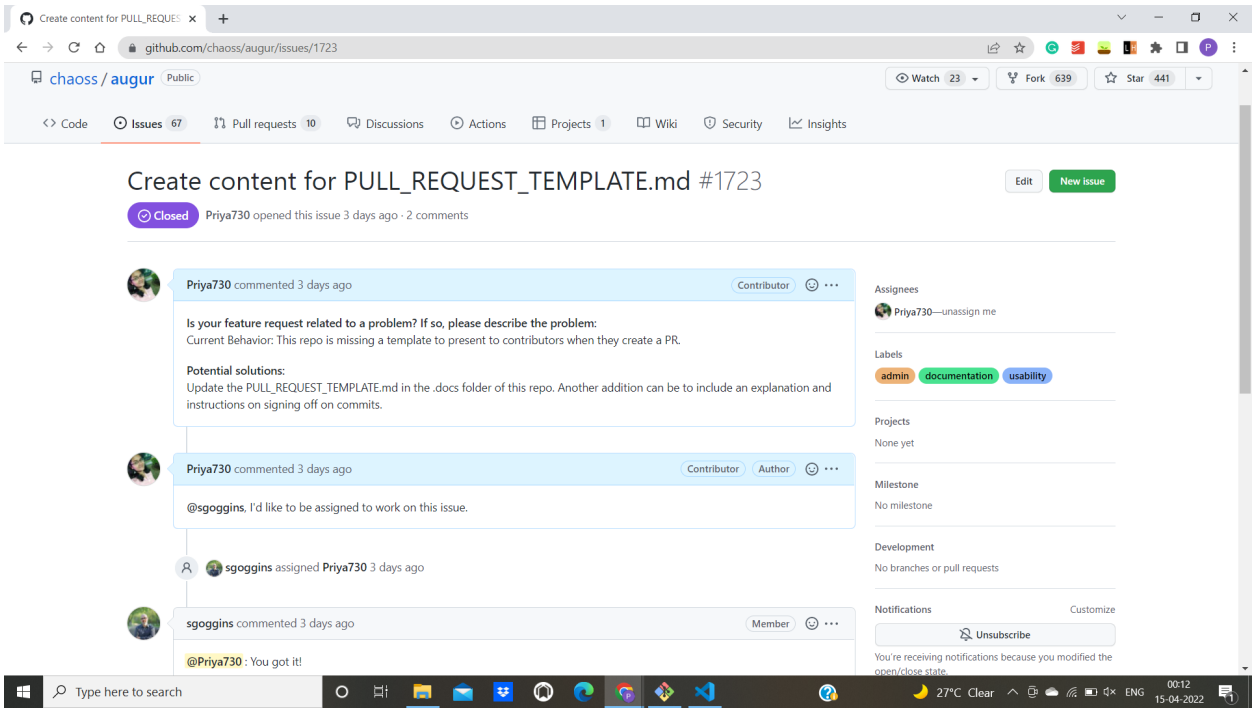
https://github.com/chaoss/augur/pull/1725

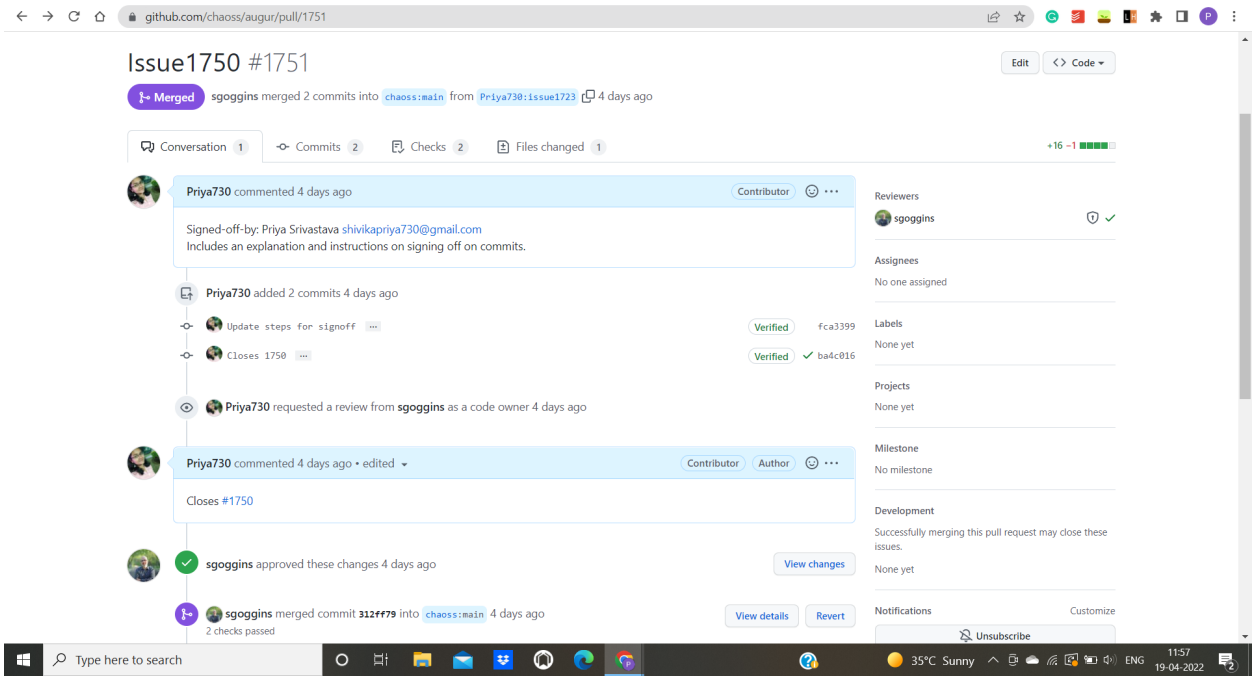
Link to issues:

https://github.com/chaoss/augur/issues/1723

https://github.com/chaoss/augur/issues/1750

- Link to the microtasks repository: https://github.com/Priya730/chaoss-micro-task




I intend to contribute to CHAOSS even after GSoC, so I will definitely pay particular attention to this project after GSoC and help in maintaining the project by offering by constantly adding new ways to improve the project and offering reviews to necessary pull requests. I plan to track my progress towards the project and with the help of mentors I aim to learn and contribute to the project during the duration of GSoC.

Apart from my contribution to CHAOSS, I have also had some personal projects which I've hosted on GitHub. They are can be found here: https://github.com/Priya730.

I will be working from India (GMT + 5.30) throughout the duration of the Google Summer of code. 3-4 hours daily. My semester examinations start on May 9th and will end by mid-May, therefore, from June till August, I will be able to devote 6 - 7 hours daily to work on my GSoC project. The next semester doesn't start until August.

I have to submit my university-related report which will not take more than a couple of hours daily. Apart from that, I am free to work on the project even during the weekends to make sure the project gets delivered before the deadline.