



Palisadoes Foundation
Calico Challenge 2018
Project: InfoSetDB
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The Beginning

- ▶ My mentor was Jordan Jones.
- ▶ He is a past student of The University of Technology.
- ▶ He, along with a few others, started InfosetDB, initially named infoset-ng, two years ago.
- ▶ InfosetDB is a Palisadoes Foundation project.
- ▶ InfosetDB is a robust, flexible and lightweight database API written in python and designed for time series data.
- ▶ He wished to make it more flexible as its rigidity made it more difficult for developers to add new functionality.

The Beginning

- ▶ Knowledge in Python, Flask, SQL and GraphQL were required for the project.
- ▶ I had a fair amount of experience with Python as well as SQL.
- ▶ I spent the first few weeks getting up to speed with Flask, and GraphQL.
- ▶ Flask is a web framework built using Python.

The Project

- ▶ As previously stated, InfosetDB is used for time series data.
- ▶ In it's previous incarnation, SQL queries and new functions had to be made every time a new need came up for the end user.
- ▶ To improve it, GraphQL was considered to be implemented into InfosetDB, to make it easier to satisfy any new needs.

The Project

- ▶ GraphQL is a querying language used to get information from databases.
- ▶ With GraphQL, instead of server defined queries, one can get exactly the data they are looking for in one query.
- ▶ This makes it easier for front end and backend developers to collaborate.

The Project

- ▶ InfosetDB works alongside two other Palisadoes Foundation projects also lead by Jordan Jones, Collectr and Insite(formerly known as Garnet).
- ▶ Collectr is used to collect the information that is to be used by InfosetDB, which is supplied by the system it is installed on.
- ▶ Insite is a graphical user interface used to display the information from InfosetDB.

The Project

- ▶ Below is the message collectr displays to signify data has been successfully sent to InfoSetDB.

```
2018-09-30 16:10:14,194181 - jhamali - STATUS - [2000] Successfully posted data  
to infoset-db
```

- ▶ The next image is the message displayed by InfoSetDB to show it has received new data.

```
infoSet 1 | 172.17.0.1 - - [30/Sep/2018 21:08:58] "POST /infoSet/api/v1/receive/c99b4af749d9f2  
d0a1fbd26c26d5eeac5781b32dabda7f0af1b5079999e1ea45 HTTP/1.1" 200 -
```


The Interface Provided by Insite

Intuitive and lightweight static dashboard for visualising time series stored in [infosetDB](#)

Data Hosts  Agents Settings



Host

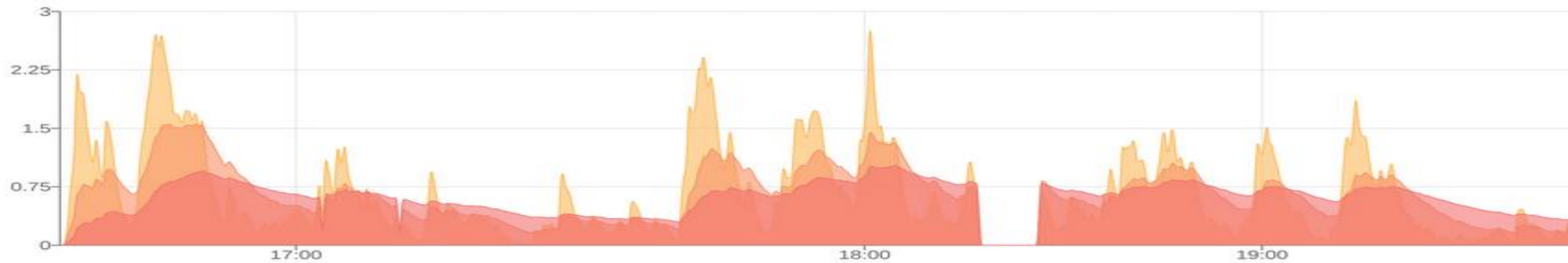


Operating System

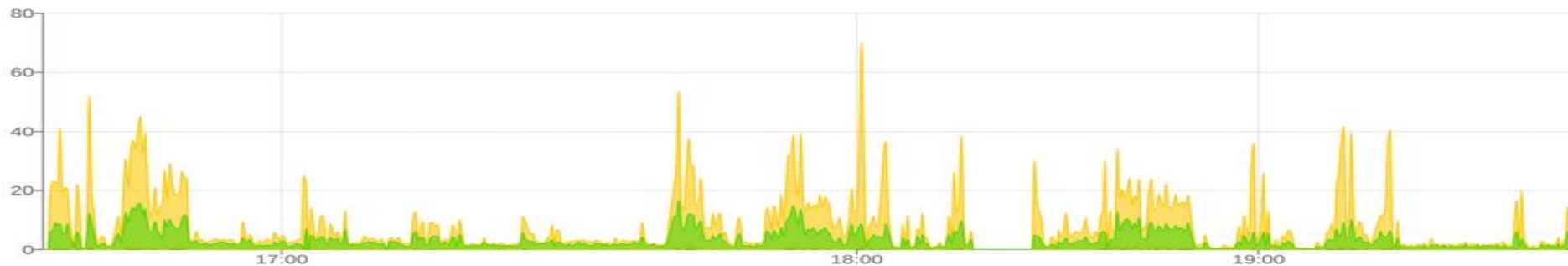


Version

Load Average



CPU Utilization



The Project

- ▶ As the project progressed, errors and issues came up often, but they were eventually resolved with the help of my mentor.
- ▶ An online Kanban board was used to keep track of various tasks.
- ▶ This is basically a listing system for tasks to be done. There is a list of tasks to be done, tasks in progress and finished tasks.
- ▶ The name of whoever is responsible for each task would be placed next to it.

Introduction to Job Opportunity

- ▶ During the summer, through the Calico Challenge, the participants were invited to The Jamaican National Commercial Banks's agile programming lab.
- ▶ It is the first of it's kind in the English Speaking Caribbean.
- ▶ We were given a tour, had various questions answered, and were told how to go about applying for a job there in the future.

The End

- ▶ This was my second year being a part of the Calico program, and it is still very much something I'd recommend to anyone interested in software development. The participants have sufficient time and guidance to really develop the skills required to carry out their project as well as possible. Additionally, they'll learn proper coding practices necessary for the quality of work required at a professional level. They also have the opportunity to become familiar with tools like Git and GitHub, used for version control, and collaboration.