

UCLH PEACH and NHS Open Source: OpenEHR Architecture and Analytics

Team 38: Report 10

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Overview of progress :

During the last couple of weeks, our main focus was to attempt and implement the ImPLY.io stack which is built upon Druid onto DC/OS. We looked into the previous team's implementation for Druid and found out that it was only installed on the local machine. Therefore, we researched thoroughly on existing frameworks and methods to deploy Druid on DC/OS. We also finalised the Apache Spark connection and finished implementing the rest of the components on Microsoft Azure.

We also started updating our Project Website based on the previous feedback we received.

Problems Faced:

The problem we faced was mainly the lack of resources and documentation to implement Druid onto DC/OS. We found that there is no existing framework at the current moment to do so therefore, it would take a long time to work on that from scratch.

Successes:

The major success we made in the two weeks is the implementation of a completed workflow on Microsoft Azure. We successfully submitted jobs to the Spark service running on Azure, which means we finally meet the basic requirements of our project. With the workflow from Nifi to Spark, we ran some tests using the data from the generator and recorded the processing time, which will be a foundation for us to improve the process speed in the following weeks.

Plan for next two weeks:

No.	Task
1	Install Druid and implement it on our local workflows
2	Install Elastic Stack and connect it with Spark
3	Work on our Project Website and finalise it.
4	Carry out Performance Testing and User Acceptance testing
5	Carry out the final evaluation of the system and iterate small changes based on Feedback

Summary of meetings held:

Meeting Date	Who attended	What we did
13/03/17	Sandipan Mengyang Desislava	<ul style="list-style-type: none">• Met with our client Dr Ramachandran to demonstrate our project and confirm any potential changes/improvements with him• Discussed overall project progress and agreed to focus on next including Druid into our workflow• Outlined what next steps to take
17/03/17	Sandipan Mengyang Desislava	<ul style="list-style-type: none">• Presented our progress check slides to Yun Fu and demonstrated our project in general• Received feedback on whether we are on the right track
24/03/17	Sandipan Mengyang Desislava	<ul style="list-style-type: none">• Demonstrated our sample project website to Yun Fu as required• Met with Dr Ramachandran to go over our latest progress• Made plan on how to complete the project over the Easter break

Individual Contributions:**Sandipan Ganguly**

During the last 2 weeks, my main priority was to find a way to implement Druid onto the Azure DC/OS workflow. I looked through several resources online and found out that no such framework exists unfortunately. Therefore, in order to demonstrate how it can fit into our workflow, I decided to verify it locally.

Furthermore, I had set up a meeting with Dr Ramachandran where we demonstrated our progress to him and discussed what should be the final area of focus for the Analytics Engine.

Mengyang Wu

During the last two weeks, I contributed mostly in the final completion of the workflow on Azure platform, especially the final Spark part. After that, I started to conduct more tests with data from our previous generator. Meanwhile, as the main builder of our project website, I started to change the layout of our page according to the feedback from our tutor. In the latest negotiation with our client, we discussed the next step of our project and the final goal. Therefore, I will focus on the final deliverable in the last month of this course.

Desislava Koleva

During the last two weeks, I have started to look into Druid after having confirmed with our client that this should be our next main area of focus. Additionally, I have continued reading up on Kafka Streams as I have been doing up until now. Also, although the Medium article draft on our project had been complete for quite a while, I simply forgot to send it to our client as I had been focused on helping to implement the other components of the project. Finally, I managed to send it to him this week and receive feedback on it.