

UCLH PEACH and NHS Open Source: OpenEHR Architecture and Analytics

Team 38: Report 2

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Overview:

During the previous week, we were familiarised with the requirements and deadlines regarding our project in more detail by Dr Ramachandran. Using an abstract diagram he presented to us, we were able to understand what key components are going to be needed for the core architecture as well as which ones we should prioritize first.

Furthermore, we were given a wide range of research materials and documentation from the previous group of students who worked on the architecture of the project and spent our own time looking into Docker and the Microsoft Azure service. After being added to the “Peach Architects” subscription on MS Azure by Dr Ramachandran, we looked at the previous DC/OS installment and where the previous team went wrong. We started researching all the necessary apps that are required, and more specifically Apache Kafka which is going to be the central hub in the data flow.

Problems faced:

During our research, we decided to practise deploying our own DC/OS installations but were unsuccessful in doing so, as we discovered that the service is not available in the UK region. We are currently looking for an alternate solution as the datacenter based in the UK only.

Successes:

We were successfully able to deploy our own version of Kafka servers in Microsoft Azure for practice. Also, we successfully imported the Nifi templates from the previous contributors in our own project.

Plan for next two weeks:

No.	Task
1	Succeed in deploying the DC/OS live on the UK region
2	Look for alternate solutions if plan 1 fails
3	Connect the Kafka dataflow to Nifi
4	Research more about Druid and Spark
5	Create a MoSCoW format of the requirements that we have so far

Summary of meetings held:

Meeting Date	Who attended	What we did
14/10/16	Sandipan Mengyang Desislava	<ul style="list-style-type: none"> We met with Dr Ramachandran and we were explained the overview diagram in more detail Started looking into the previous team's documentation and resources
19/10/16	Sandipan Mengyang Desislava	<ul style="list-style-type: none"> We met with our supervisor Dr Harry Strange where we discussed our current progress and we set some deadlines for the next meeting.
19/10/16	Sandipan Mengyang Desislava	<ul style="list-style-type: none"> Discussed progress so far in further detail Created plan of action for the upcoming week Discussed team dependencies
21/10/16	Sandipan Mengyang Desislava	<ul style="list-style-type: none"> Went over videos and tutorials on the DC/OS container service and Apache Kafka We set up an initial version of our project website
28/10/16	Sandipan Mengyang Desislava	<ul style="list-style-type: none"> Successfully managed to deploy a Kafka server Attempted to deploy the DC/OS installation but failed due to the region blocked service Met with Dr Ramachandran and he gave us the previous team's Lead Architect's contact.

Individual Contributions:**Sandipan Ganguly**

During the past two weeks, I have thoroughly looked into the main components required for the core architecture namely DC/OS and Apache Kafka in the form of videos, tutorials and the previous team's documentation. I have also attempted to deploy my own version of DC/OS on Microsoft Azure for practice but was unsuccessful due to the service being unavailable in the UK region. However, I successfully managed to deploy my own Kafka server so that the process will be more familiar when I do it for the live version.

Mengyang Wu

In the last two weeks, I contributed more on the DC/OC deployment and our project website. As our project will be managed by DC/OS, the precondition is to have a running system on Azure. I tried tens of times in creating a DC/OS container in Azure UK in several different ways, while they didn't work eventually for the lack of service in UK region. So in the following weeks, I will try to get alternative solutions to overcome the difficulty. Meanwhile, I started to build our project webpage, which is based on the wordpress. The basic framework has been set up so that we can update it with latest progress.

Desislava Koleva

Over the past two weeks, I have been focused on familiarising myself with the different tools and platforms we will be using throughout the scope of the project. Namely, I have started watching a series of tutorials on Nifi and have begun looking into the advantages and disadvantages of using Kappa architecture and Lambda architecture. All of these resources were recommended by our client. I have also started watching separate tutorials on using Kafka. Additionally, similarly to my teammates, I have managed to deploy Kafka using the Microsoft Azure services.