

Biweekly Status Report 5 (10/28/19 - 11/8/19)

SE 492: Team sddec19-24

DevOps Framework for IOT

Client / Faculty Advisor: Lotfi Ben Othmane

Team Members:

Yussef Saleh	<i>Team Leader</i>
Matt Bechtel	<i>Chief Designer / Engineer</i>
Brett Wilhelm	<i>UI Lead / Engineer</i>
Chakib Ahlouche	<i>Assistant Programmer / Engineer</i>
Ahmed Sobi	<i>Assistant Programmer / Engineer</i>

Git repositories for extensions mentioned below:

<https://git.ece.iastate.edu/sddec19-24/iot-deployment-manager/>

<https://git.ece.iastate.edu/sddec19-24/iot-deployment-service/>

o Bi-Weekly Summary

- Over these two weeks we worked on the solidification of the iot deployment API, working to provide endpoints that allow all necessary functionality to perform and manage deployments. To the deployment service we added deployment history functionality by storing deployment records in our database. Deployment records which also store information about who made the deployment, when the deployment started, and how long it lasted. Some more work is to be done here as there is still some missing functionality, such as information about what commit was run and the logs from that deployment, but that will come soon. Beyond work to finish up the deployment API, there was work done to surface its features, such as UI development and Swagger documentation. Also, work has been done on the packaging of our system via docker, which will allow users to run our code in the environment of our choosing, allowing users to have a smoother and more enjoyable experience with our system.

o Past Week(s) Accomplishments

- DB schema added for the storage of deployment information.
- UI page added for surfacing of deployment information to the user.
- Docker compose script created, allowing users to stand up the hammer io with minimal effort and configuration.

o Pending Issues

- Collect logging information on running software started by the iot deployment manager. Send that data to the hammerio firebase for retrieval.
- Find a way to collect statistics from Skadi
- Add endor user authentication to the iot deployment suite
- Finalize deployment DB schema, store information about deployment (commit hash)
- Finish iot deployment UI

● Individual Contributions

<u>Name</u>	<u>Individual Contributions</u>	<u>Weekly Hours</u>	<u>Total Hours</u>
Yussef	Worked on packaging our source code to improve our user's experience.	3	64
Matt	<p>Added new endpoints to the deployment service and manager which allow for the query of a deployment's status. This information includes status, start time, uptime, etc. Also added the swagger documentation for these endpoints so that a user may hit our documentation endpoint and understand our system's functionality with ease.</p> <p>Created the deployment DB schema, which will store information to the history of given deployments. This information includes what devices a user has access to, what deployments a user has made, and when these deployments took place. The DB records for deployments will be the source of truth for all information regard who perform deployments, when they deployed them, and with what configuration they used.</p> <p>Spent time helping Brett with some UI related issues. He was having a tough time proxying the API requests from the UI to the deployment service which is running on our web server. This issue was solved by using a proxy, this was done with relative ease as React offers this feature out of the box.</p>	15	105
Brett	Progressed work on status page to fetch necessary data. Furthered understanding of React.	5	62
Chakib	Worked on getting fireBase tables setup as a database cloud service , working on making test scripts to populate the database tables , to eventually display it on IU . Integrating the data aggregator (koma) with our	10	74

	deployed software through logging .		
Sobi	Collaborated with team on next steps within the project. Was assigned work regarding the storage of logs produced from given deployments.	5	26

o Plans for Next Week

- Heavy work regarding the deployment service's authentication and DB schema.
- UI work will be crucial, and will be done next week.
- Log deployment information to firebase.

o Summary of Advisory Meeting

- Setup a milestone to achieve in two weeks in all our functionality and integration.
- Emphasized the importance of IU to display our deployment.