

15-400 Spring 2018 Bi-Weekly Report 2
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Major Changes:

There will be some changes for the milestone schedule. But the major changes are not clear at this point. I will update the changes as the research unfolds in the next one or two reports.

What You Have Accomplished Since Your Last Meeting:

For the past two weeks, every one in the group was trying to make the controller-server pipeline work. The controller would collect experiment data from databases and send the results to the server for further analysis. The result of the analysis would be posted on the server website.

Now with the arrival of a new machine (as the main OtterTune server) the pipeline is ready to be launched. However there are still some important issues with the pipeline. One of them is that when the user uploaded too few knobs data, the data for the machine learning model was too few. So it would be impossible for our running session to output knobs configuration recommendations. But now too few data would simply throw an exception and causes the server to stop. We would like to improve this by generating random configuration knobs data and warn the user of too few data. I'm currently working on this task and will hopefully finish this by the end of this week. So next week, we could make the new pipeline run all the time and start doing knobs configuration tuning experiments and improve current machine learning models.

Meeting Your Milestone:

The milestone needs to be changed. But in general I'm working towards the goal.

Surprises: No surprises found so far. Still building some tools for further research. Almost there.

Looking Ahead:

Over the next two weeks, I'll start to work on my research topic: carrying knobs configuration information from an older version of a certain database to a new one.

Revisions to Your Future Milestones:

I'll modify the milestone in the next one or two reports. Because it is hard to predict the exact milestones from current point of view.

Resources Needed:

Yes. I have got all the resources I need.