

SUPPLEMENT MATERIAL

1. Link to the application

<https://vixlab305.github.io/JobViewer/>

2. Link to videos of user study

Volunteer 1: <https://1drv.ms/v/s!AIYNDqMt8ebjkQB946nm3msg-1mh>

Volunteer 2: <https://1drv.ms/v/s!AIYNDqMt8ebjkH6Ok6wtCXBmL5uy>

Volunteer 3: <https://1drv.ms/v/s!AIYNDqMt8ebjkH-7BOXEoLciBb0V>

3. Questions on user study – the first version

Only volunteer 1 take this version of questions. Others take the second version below.

Task 1: Health metrics

Select 'Memory usage' on Visualizing menu. On Wednesday 19, at 19:45 PM,

- Point out a node with high memory usage?
- Click on that node. What is the job name running on this node?
- Which user does the job belong to?

Task 2: Job information

Select 'User' on Visualizing menu. On Friday 14 at 18:00 PM,

- Which user submit new job?
- Name the new job!
- Comment on why some nodes running multiple jobs while some nodes are blank.

Task 3: Clustering

Stop the timeline on Tuesday 18 at 3:10 AM, on Visualizing tab, choose Radar. Then choose Leader bin to cluster all compute nodes to the range of 5 to 10 groups.

- Name nodes with high CPU2 temp and high four fans' speed.

Task 4: Metric vs. job relation

- Look at time series of CPU2 temp of node 4.33, comment on relation between jobs and the CPU temp!
- Look at time series of CPU1 temperature of any node with high value CPU1 temperature, comment on relation between jobs and CPU temp!

Task 5: General comments

- Is it easy to use the app to find the answers for above questions?
- Do you think the app can help improve your monitoring activities and why?

4. Questions on user study – the second version

Beside the three volunteers, we also contact to another one. She spent time listening our introduction to the application. After she read through the questions, she denied answering them with the reason of busy. This is the reason why we try to shorten our questions to have the second version. Volunteer 2 and 3 takes this version of questions.

Please follow the instructions to save your time!

1. Move the timeline near Tuesday 08/18/2020 at 11:30 AM.
2. Use buttons to move to exactly Tuesday 08/18/2020 at 11:30 AM.

3. Read instructions and answer below questions (bullet points). They are quite simple, and you can answer in a few seconds.

Task 1: Health metrics

Select 'Memory usage' on Visualizing menu.

- Point out a node with high memory usage?
- Which user does the node link to?

Task 2: Job information

- Which user submit new job?

Task 3: Clustering

Select 'Radar' on Visualizing menu. Then select 'Leader bin' on Grouping Method menu. Input '5' to '10' on #Group. Click 'Submit'.

- Name nodes with high CPU2 temp and high four fans' speed.

Task 4: Metric vs. job relation

Select 'CPU2 temp' on Visualizing menu. Then click on the red node on rack 4. It is node 4.33.

- Look at time series of CPU2 temp of node 4.33, comment on relation between jobs and the CPU2 temp.

Task 5: General comments

- Is it easy to use the app to find the answers for above questions?
- Do you think the app can help improve your monitoring activities and why?