Administrative Interface
PRAGMA Cloud Scheduler

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INTRODUCTION

- PRAGMA Cloud Testbed is a distributed international infrastructure and has a web-based cloud scheduler reservation system to enable users to run the experiments using virtual clusters.
- The purpose of this study is to improve the following issues related to site and resource management in the cloud scheduler:
- First, resource administrators should be able to modify the resource attributes for their resources.
  > Resource add permissions
  > Create resource & submit
  > Modify resource & submit
- Second, resource administrators should be able to add a new resource as well.

SYSTEM ARCHITECTURE

FRONT-END Layer
- HTML
- SASS
- JAVASCRIPT
- REACT

Business Logic Layer
- PYTHON

FRONT-END Layer
- MYSQL

PROCEDURE

Resource add Form

SIGN IN → CREATE → RUNNING → CANCELED / SUBMIT

Resource modify Form

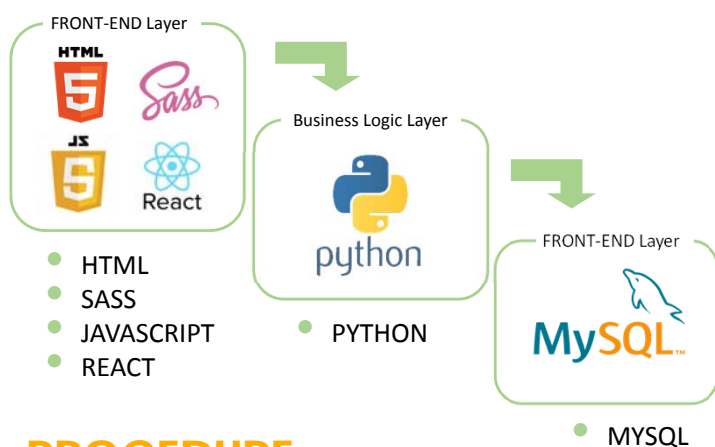SIGN IN → CHECKING → MODIFY → RUNNING → SUBMIT / CANCELED

RESULTS

Resource add Form

- Add four items for the resource add form
- total_cpu, total_memory, image_type, network

1. Click the "More info" button on the resource you want to modify.
2. The resource information you originally entered is called up and the information you want to modify is modified.

Resource modify Form

CONCLUSIONS
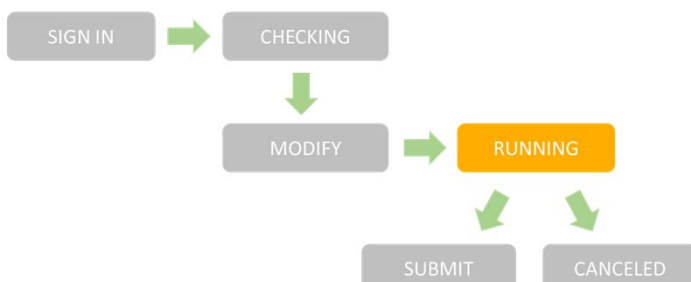
- It is categorized the users into three groups, Admin, Resource-Admin and User, depending on their authority.
  - Admin can manage and use the entire resources
  - Resource-Admin can manage and use the resources owned
  - User can be reserved and used
- Resource administrators can modify the resource attributes for their resources and add a new resource.

FUTURE WORK

- The future work includes the followings:
  > Resource administrators should be able to grant access to users or groups to use their resources.
  > User registration and management on user accounts

REFERENCE

[1] N. Banluesombatkul, P. Kaewlamul, P. Rattanatamrong, N. Williams, and S. Smallen, "PRAGMA Cloud Scheduler: Improving Usability of the PRAGMA Cloud Testbed ", 2017 Int'l Computer Science and Engineering Conference(ICSEC)