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Activity 9: Install, Configure, and Manage Performance Monitoring tools

1. Objectives

Create and design a workflow that installs, configure and manage enterprise performance tools using Ansible as an Infrastructure as Code (IaC) tool.

2. Discussion

Performance monitoring is a type of monitoring tool that identifies current resource consumption of the workload, in this page we will discuss multiple performance monitoring tool.

Prometheus

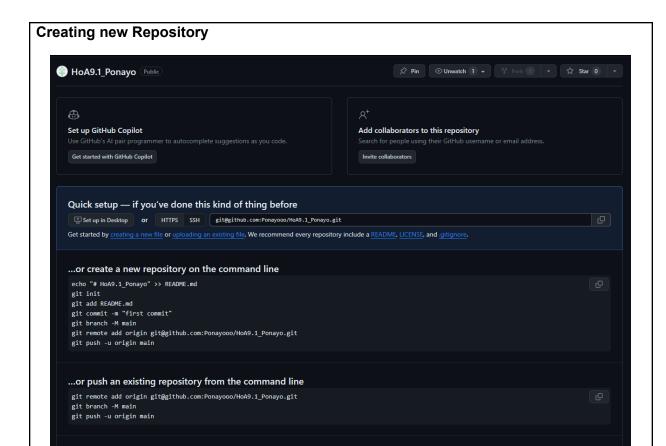
Prometheus fundamentally stores all data as timeseries: streams of timestamped values belonging to the same metric and the same set of labeled dimensions. Besides stored time series, Prometheus may generate temporary derived time series as the result of queries. Source: Prometheus - Monitoring system & time series database

Cacti

Cacti is a complete network graphing solution designed to harness the power of RRDTool's data storage and graphing functionality. Cacti provides a fast poller, advanced graph templating, multiple data acquisition methods, and user management features out of the box. All of this is wrapped in an intuitive, easy to use interface that makes sense for LAN-sized installations up to complex networks with thousands of devices. Source: Cacti® - The Complete RRDTool-based Graphing Solution

3. Tasks

- 1. Create a playbook that installs Prometheus in both Ubuntu and CentOS. Apply the concept of creating roles.
- 2. Describe how you did step 1. (Provide screenshots and explanations in your report. Make your report detailed such that it will look like a manual.)
- 3. Show an output of the installed Prometheus for both Ubuntu and CentOS.
- 4. Make sure to create a new repository in GitHub for this activity.
- **4. Output** (screenshots and explanations)



Cloning repository

...or import code from another repository

On this step, I use git clone to apply the new repository in the workstation. And use the "Is" command to show if the cloning is successful.

```
ponayo@Workstation:~/HoA9.1_Ponayo

ponayo@Workstation:~\footnote{\text{ponayoo}}

ponayo@Workstation:~\footnote{\text{git}} clone git@github.com:Ponayooo/HoA9.1_Ponayo.git

cloning into 'HoA9.1_Ponayo'...

warning: You appear to have cloned an empty repository.

ponayo@Workstation:~\footnote{\text{sansible}}.cfg

CPE232_Ponayo

Downloads

hosts

Music

Ponayo_PrelimExam

Public

Templates

Ponayo_PrelimExam

Videos

Ponayo@Workstation:~\footnote{\text{HoA9.1_Ponayo}}

ponayo@Workstation:~\footnote{\text{HoA9.1_Ponayo}}

ponayo@Workstation:~\footnote{\text{HoA9.1_Ponayo}}
```

Creating files

On this step, I created the files that I need to install the Prometheus.

```
ponayo@Workstation:~/HoA9.1_Ponayo$ sudo nano ansible.cfg
[sudo] password for ponayo:
ponayo@Workstation:~/HoA9.1_Ponayo$ sudo nano inventory
ponayo@Workstation:~/HoA9.1_Ponayo$ ls
ansible.cfg inventory
ponayo@Workstation:~/HoA9.1_Ponayo$ mkdir roles
ponayo@Workstation:~/HoA9.1_Ponayo$ cd roles
ponayo@Workstation:~/HoA9.1_Ponayo/roles$ sudo nano centos_prometheus
ponayo@Workstation:~/HoA9.1_Ponayo/roles$ sudo nano ubuntu_prometheus
ponayo@Workstation:~/HoA9.1_Ponayo/roles$ ls
centos_prometheus ubuntu_prometheus
ponayo@Workstation:~/HoA9.1_Ponayo/roles$ cd
ponayo@Workstation:~$
ponayo@Workstation:~$ cd HoA9.1_Ponayo
ponayo@Workstation:~/HoA9.1_Ponayo$ mkdir files
ponayo@Workstation:~/HoA9.1_Ponayo$ cd files
ponayo@Workstation:~/HoA9.1_Ponayo/files$ sudo nano prometheus.service
ponayo@Workstation:~/HoA9.1_Ponayo/files$ cd
ponayo@Workstation:~$ cd HoA9.1 Ponayo
ponayo@Workstation:~/HoA9.1_Ponayo$ tree

    ansible.cfg

    prometheus.service

   inventory
       centos_prometheus
     ___ ubuntu_prometheus
2 directories, 5 files
ponayo@Workstation:~/HoA9.1_Ponayo$
```

Reflections:

Answer the following:

1. What are the benefits of having a performance monitoring tool?

Conclusions: