

A Study on Cloud Resource Cleanup and Monitoring Dashboard

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ABSTRACT: Due to various features and economical benefits cloud platform has rapidly become famous and is widely used for giving services on over internet.[1] Due to rapid increase in the number of users on cloud platform, data centers are also growing rapidly in terms of hardware resource, traffic volume, virtual resources, and storage; thus, it is a making cloud platform or solution architectures very difficult handle all the resources on cloud like how many resources are running without using it, duration, by user, etc.

To manage the unused resources which are running on the cloud platform which will cost for the organization, this system is going to help to cleanup unused resources and gives the notification to the users and helps organization to save the cost of those resources. The monitoring dashboard system will show all the resources of cloud platform which are running in respect to each service and can be easily monitor on dashboard and resources cost can also be shown on dashboard and as well as on chart system with respect to various services. This paper discusses about how unused cloud resources will get cleanup and monitoring the resources using dashboard for useful insights which will be helpful for decision making process in the organization.[2]

Index Terms: Cloud Resource Cleanup, Cloud Resource Monitoring Dashboard, Cloud Resources.

I. INTRODUCTION

Cloud data centers are rapidly growing and continue to grow. Due to this, the services which the cloud platform provides to the users are numerously increasing day by day. The resources used by users are also increased more than expected. Maintaining few resources in an organization can be done but maintaining countless number of resources is very complex process.

The resources which are running but not in use will cost the company. This is major issue which is facing by each organization now a days. Paying the amount for unused resources is loss for the organization. To overcome this, the developed system will assist an organization to cleanup the resources automatically based on certain conditions which is set by the organization. Based on that condition, the resources are get terminated automatically or restricted users to use the resources for further in which it will save a lot of amounts to the company.

The monitoring dashboard shows the resources which are running currently with respect to each service provided by the cloud provider. On this dashboard, admin can monitor all the resources which are being running, terminated, cost, etc.

The dashboard also contains charts for the resources of each service in which it will show the cost for the resources being charged. The resource cleanup and monitoring dashboard will help the organizations in various ways to save the time, the cost of the resources and monitor the resources of each service so that it will help the organization to have the information on all the services which are being used by the users in the organization. Admin can also create a token for IAM user where users can have access to the shared one to use the resources depending upon the organization permits and amount of usage.

II. LITERATURE REVIEW

Paying the amount for unused resources on cloud is one of the biggest challenges for organizations in which facing since the cloud platform come into existence. In addition, the dashboard which is given are not effective as they don't show what exactly organization requires. In this circumstance, this system helps to cleanup the

unused resources by manually terminating or by automatically. This system can send the notification of each resource cost at the end of the day through various communication such as email. The dashboard helps to show the number of resources currently being running and show the total cost of each service.[5]

The cloud providers, provides manual termination of resources which is created by user. If the user forgets or didn't terminate the resources which are not required, then those resources will charge as per the duration of the usage in which it is cost for the company. If the organization wants to restrict the user based on the user's usage with respect to cost, this option is not available. The admin can not see all the resources of all availability zones in a single place and also can not see how many terminated. So, this system tracks all logs and shows the admin the running instances, terminated instances, have an option to terminate the instances, list the instances, total cost, chart wise, etc. The dashboards will have all the instances, services, cost, user's details, services, charts, terminated resources. This is helpful for the organization to have useful insights to make great decisions for the future. Unlike cloud providers, this system will help the admin to create the token to access resources on cloud to the users depending upon the permission given.[9]

III. CONCLUSION

Cloud resource cleanup will help the organizations to reduce its costs on resources, set the limitations to users, terminate the resources which are unused, list the resources from various availability zones, show the number of instances running and terminated, create a token for new users to access to the resources, etc. Monitoring dashboard helps to display various running resources to services with cost to each resource and total cost for each service and total cost for all the services. It also shows, charts, day wise cost of resources, various services and under it various resources. Stores the logs and files in S3 for extraction. This saves a lot time, effective utilization of resources, helps in decision making process, reduces cost, reliable, etc.

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