CLOUD BASED DEVOPS SKILL ASSESSMENT APPLICATION

Problem Statement

To develop a web based application to assess DevOps and Linux administration skills.

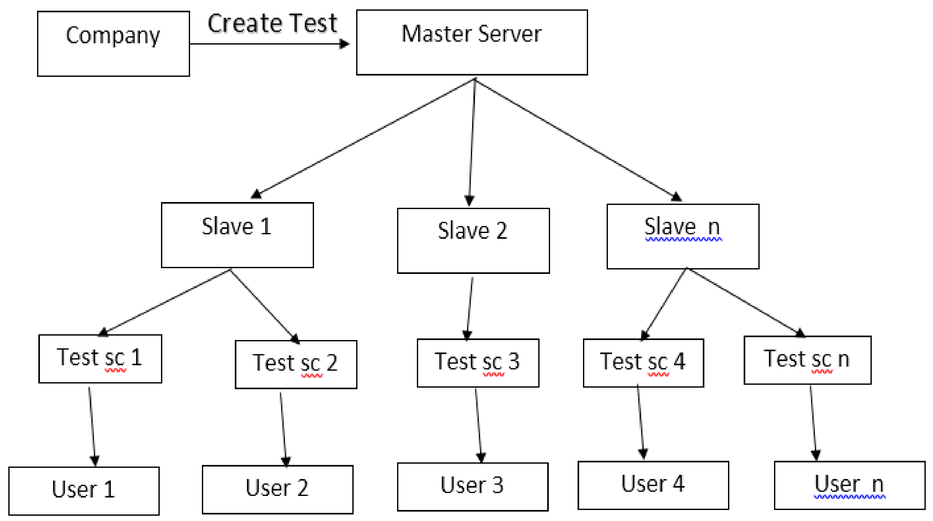
Introduction

Now a days many online tools are available to test the programming knowledge of the person like codechef. But in order to test the knowledge of the DevOps there is no such online tool available. So the aim is to develop the cloud based infrastructure to test the knowledge of DevOps of the examinee. The questions related to the DevOps will be given to the candidate along with the access to the terminal. The candidate has to do all the steps required to solve the problem given. The terminal Provided to the candidate is the communication link between the candidate and the allotted container. We are using containers rather than VMs, because containers are small,light-weighted and fast, one application can be packed in each container image. The Kubernetes will manage the containerized applications such as database storage and user specific command across a set of containers or hosts and provides mechanisms for deployment, maintenance, and application-scaling. The container runtime packages, instantiates, and runs user commands on containerized application. The output generated will be stored in a temporary file which will be verified with the desired output stored in a database.

Objectives

- Assess DevOps skills
- Assess Linux administration skills
- To provide a web based platform for assessment

Proposed Work



Description

Working:

Our Project is having distributed environment. We are using DevOps Tools such as Kubernetes for generation of master and slave nodes. System will perform task of the evaluation of skills of the candidate.
Let S = {U, N, T, S, status, result, F} Where,
U = { u1, u2, u3, .., ui.} Finite set of users (Candidates).
N = { Master, Slave }
Where,
Master = Kubernetes master node. Slave = Kubernetes worker node.
Slave = { slave1, slave2, ., slavei }
T = { t1, t2, t3, ., ti } Finite set of test Scenarios.
S = { s1, s2, s3, ., si } Finite set of scores of a user.
status = { status1, status2, .., status i } Test status.

Future Work And Challenges

1)Company can create their own questions and assess.

2) Seamless integration of various subjects.

3)Candidate ranking for the test.

Applications

Assess

- Linux Skills
- DevOps Skills
- Configuration Testing

CONCLUSIONS

- This Project deals with Linux and DevOps skill of candidate applied for the company post.
- Company can monitor candidate submissions.

REFERENCES

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