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Assignment 1

1) Write short note on Ansible.

ans Ansible is a software tool that provides simple but powerful automation for cross-platform computer support. It is primarily intended for IT professionals, who use it for application deployment, updates on workstations and servers, cloud provisioning, configuration management, intra-service orchestration and nearly anything a system administrator does on a weekly or daily basis. Ansible doesn't depend on agent software and has no additional security infrastructure, so its easy to deploy.

In ansible there are two types of nodes: control nodes and managed nodes. The control node is the computer that runs Ansible. There must be atleast one control node, although a backup control node may exist. A managed node is any device being managed by control node. Ansible works by connecting to the nodes on network and then sending a small program called as Ansible module to that node. Ansible executes these modules over SSH and removes them when finished. The only requirement for this interaction is that your Ansible control node has login access to the managed nodes. SSH keys are the most common ways to provide access, but other forms of authentication are also supported.

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2) Write short note on saltstack.

saltstack or salt is a very powerful automation framework. Salt architecture is based on the idea of executing commands remotely. All networking is designed around some aspect of remote execution. This could be as simple as asking a remote web server to display a static webpage or as complex as using a shell session to interactively issue commands against a remote server.

Salt is designed to allow users to explicitly target and command issues to multiple machines directly. Salt is based around the idea of a master, which controls one or more minions. Commands are issued from Master to a target group of minions which then execute the task specified in the commands and then return the resulting data to the master.

Salt is build for speed and scale. That is why it is used to manage tens of thousands of servers at Google, Linkedin and WikiMedia.

Salt is open-source configuration management software and remote execution engine. Salt is primarily competing with Puppet, Ansible and Chef.

Fault tolerance
Flexibility
Scalable Configuration Management
Python API
Parallel Execution model
Easy to setup
Language Agnostic.

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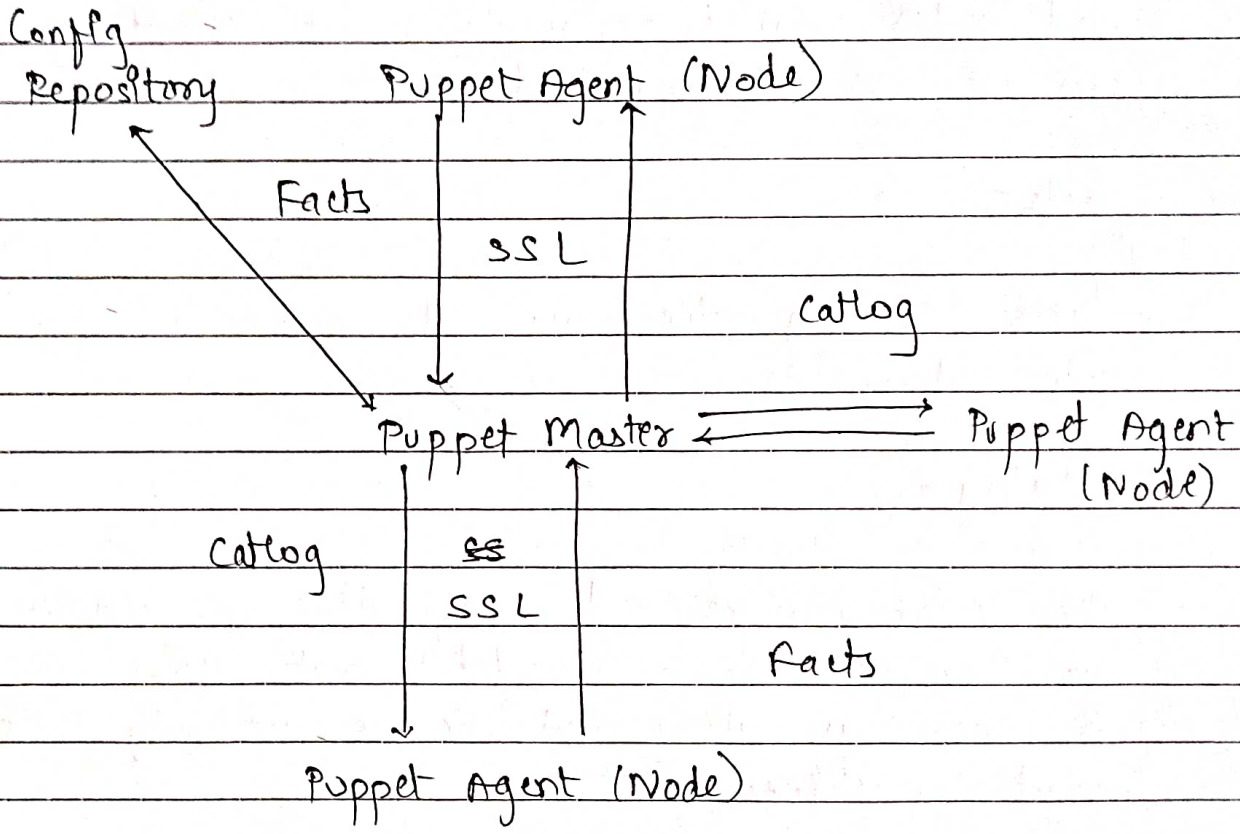
Q3) Explain puppet architecture.

Ans Puppet is a configuration management technology to manage the infrastructure on physical or virtual machines. It is an open source software configuration management tool developed using Ruby.



Puppet Master-

Puppet master handles all configuration related process in the form of puppet codes. It is a linux based system in which puppet master software is installed.

Puppet Agent or slave -

Puppet agents are real working systems and used by the client. It is installed on the client machine and maintained

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and managed by puppet master. They have a puppet agent service running inside them.

Config Repository -

Config repository is the storage area where all the servers and nodes related configurations are ~~tested~~ stored and we can pull these as required.

Facts -

Facts are key-value pair. It contains information about node and master.

Catalog -

The entire manifest and configuration are written in Puppet are changed into a compiled format. This compiled format is known as catlog and the we can apply this catalog to target machine.

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