**Linux**

1. Linux is a free to use.
2. Every thing will be in the form of files
3. Kernel is the key layer of the linux operating system
4. Every thing will be stored in the form of files
5. Shell will be act as a interface between the User and the kernel.
6. Shell is an interpreter and it just used to displays output.
7. The reason why we are using linux compared to windows is the no of files we download the speed the operating system will be reduced.

**AWS**

1. It is a cloud platform for launching an instance or compute instance.
2. Having file-level granularity for security is very use full
3. Auto archive
4. Storage of capability with offering varitys of DBS
5. Security and highly encrypted.
6. The price of the features like instances, S3, Elastic IPs etc is not to high.
7. UPTIME

The reason why we use AWS is compared to AZURE is

1. Auto delete archive is available is amazon where we have to purchase in Azure
2. Auto delete available
3. Encrypt data is smart feature in amazon it is still in progress in other cloud platforms
4. Reduced redununcy will be in the form of file level
5. Max size in Blob 5TB other supports only 1TB
6. Security will be launched with file level not in bucket level.

**Chef**

1. Writing Opscode CHEF Cookbooks to develop a continuous deployment pipeline for a wide range of Linux applications that run in LXD Containers, Virtual and Bare metal servers.
2. Develop Opscode Chef cookbooks and recipes to automate installation of COTS, FOSS, and system hardening on GPS OCX systems
3. Update existing Chef cookbook formatting to follow style guide and include idempotency
4. Installed Chef-Server Enterprise On-Premise/WorkStation/ Bootstrapped the Nodes using Knife.
5. Worked with Chef Enterprise Hosted as well as On-Premise, Installed Workstation, Bootstrapped Nodes.
6. Wrote Recipes and Cookbooks and uploaded them to Chef-server, Managed On-site OS/Applications/Services/Packages using Chef as well as AWS for EC2/S3/Route53 & ELB with Chef Cookbooks.
7. Wrote Chefspecs and Server specs for the unit testing and integration testing.
8. Improve infrastructure through the devDeploy Splunk server and work on automation code to build the server in the cloud using Chef.elopment of automation software modules known as OpscodeChef Cookbooks.
9. Create Chef Cookbooks and Recipes to maintain and automate various parts of infrastructure.
10. Create Chef coding best practices for existing development team
11. Refactor existing Opscode Chef Automation code.
12. Test Chef Cookbook modifications on cloud instances in AWS and using Test Kitchen and ChefSpec.
13. Create documentation for Chef best practices to be used by developers as a guide to Chef

**Ansible**

1. It’s a simple automation language that can perfectly describe an IT application infrastructure in in ansible playbooks
2. Its an automation engine that runs ansible playbooks
3. Ansible Tower by red hat is an enterprise framework for controlling securing and managing your ansible automation with a UI and restful API.
4. **Its is simple human readable automation, no special coding skills needed, it is powerful and agentless**
5. Implemented and designed AWS virtual servers by Ansible roles to ensure deployment of web applications.
6. Creating S3 buckets and setting permissions for buckets using Ansible roles and playbooks. UsingS3 storage to make fetch important documents during instance creation and Web development.
7. Used Ansible for creating subnets, security groups, route tables and ACL's for VPC creation and deploying EC2 instances on AWS.
8. Generated client/server certificates using Bulk API and copied the certificates on all the DEV hosts, wrote an ansible script for the same.
9. Involved in developing custom scripts using Python which act as backend for the Ansible scripts to get deployed in the client hosts through Infrared