Ansible [IAC] → Infrastructure as a code

One of the most powerful tools for automation and configuration management tool

Day 1 :

- Introduction to ansible
- Brief history behind ansible development
- Comparison among ansible , puppet , chef , saltstack
- Installing ansible on Linux kernel
- Deep dive with internals of ansible configuration files
- Deep dive with connection types of ansible
- Working with ansible static inventory
- Exploring ansible inventory
- Using ansible-doc for modules
- Using and understanding ansible modules
- Ansible playbooks writing
- Deploying apache web server using playbook

Playbook best practice :
- Using multi plays and playbook
- Importing tasks and playbooks
- Using tags in ansible
- Use cases of tags
- Ansible syntax-check and dry-run
- Working with modules like , yum , dnf , service , lineinfile , replace , get_url , apt , firewalld , debug , user , file
- Using ansible verbose with playbooks
- Storing output into a tree
- Starting with ansible variables
- Variables with files , inventory variables , group_vars , host_vars

Day 2 :

- Ansible facts
- Using jinja templates
- Using ansible facts with playbooks
- Facts gathering
- Best usage of ansible facts and variables
- Using and understanding conditional , loops , block
- Attaching windows instances using winrm connection type
- Understanding security threats with powershell

Facts ,loop and jinja templates best practice :
- Installing multiple software from a list using loops
- Running multiple commands with loops and condition
- Writing multi vendor playbook under a single playbooks
- Ansible acceleration
- Forks , deligation , privilege escalation ,serial use cases , rolling updates

Day 3 :

- Working ansible vault
- Error handling
- Using blocks and lookups
- Promtps and file
- Modules storage and creating
- Ansible roles and ansible galaxy
- Working awx
- Testing strategy

Best practice :

- Encrypting variables and playbooks to run
- Writing multi variables and playbooks encryption with ansible-vault
- Use case of errors and blocks with error handling
- Using vault with prompt and file for encryption
- Using modules storage related modules to deal with partition and lvm of hard disk
- Handling awx project with ansible tower
- Running ansible playbooks with ansible tower
- Writing multi role playbooks to deploy database , web server , firewall on remote system
- Implementing testing strategy