

WHAT IS DEVOPS: Devops is not a tool or technology it's a process of Communicating, Collaborating & integrating between development team & operation team. With the help of Devops we can deploy web applications, Mobile application & Desktop applications

Goal here is to bridge the traditional gaps between the Dev & ops team

DEVOPS INTRO:

- Introduction to SDLC
- Waterfall Model
- Advantages of Waterfall Model
- Dis-Advantages of Waterfall Model
- Agile Methodology
- Scrum
- DevOps History
- DevOps Lifecycle
- Before DevOps and After DevOps
- Advantages
- Road Map
- Add on Advantages

CLOUD INTRO:

- What is Cloud
- Scenario with & without Cloud
- Cloud Computing
- Importance of 2008
- Types of Cloud Computing
- Service Models
- Deployment Models
- Cloud Market
- What is AWS
- Top 10 Cloud Provider's
- Diff blw AWS, AZURE
- Advantages
- Main Roles
- Certifications

LINUX:

- LINUX INTRODUCTION
- FLAVOURS ON LINUX
- LINUX HISTORY
- LINUX ADVANTAGES
- SYSTEM INFORMATION

- HARDWARE INFORMATION
- FILE COMMANDS
- VIM EDITOR
- USERS
- GROUPS
- FILE PERMISSIONS
- NETWORKING
- COMPRESSION/ARCHIVE
- DISK USEAGE
- PACKAGE INSTALLATION
- SCRIPTING
- FHS/DIRECTORY SYSTEM
- LINUX FILTERS
- LINUX MAN PAGES
- SED FILTERS
- GREP FILTERS

AWS SERVICES

- ELASTIC COMPUTE CLOUD (EC2)
- VIRTUAL PRIVATE CLOUD (VPC)
- SIMPLE STORAGE SERVICE (S3)
- CROSS REGION REPLICATION (CRR)
- ELASTIC BLOCK STORAGE (EBS)
- IDENTITY AND ACCESS MANAGEMNT (IAM)
- COMMAND LINE INTERFACE (CLI)
- RELATIONAL DATABASE SERVICE (RDS)
- ELASTIC LOAD BALANCER (ELB)
- STATIC WEB HOSTING
- AUTO SCALING
- ELASTIC BEAN STACK
- EKS
- ECR

DEVOPS

GIT:

- VCS HISTORY
- REVISION CONTROL SYSTEM
- SUBVERSION
- GIT STAGES
- WORKING DIRECTOR
- STAGING AREA
- REPOSITORY (LOCAL, CENTRAL, REMOTE)
- GIT INSTALLATION
- GIT ADD
- GIT COMMIT

- GIT STATUS
- COMMIT A FILE USING GIT
- CONFIGURATION OF USER
- IGNORING CONTENT
- GIT HUB
- GIT REPO'S (PRIVATE & PUBLIC)
- GIT PUSH
- GIT PULL
- GIT CLONING
- GIT BRANCH
- GIT MERGE
- GIT FORK
- GIT STASH
- GIT REVERT
- GIT MERGE
- GITHUB FILEADD
- ADVANTAGES & DISADVANTAGES
- INTERVIEW QUESTIONS

MAVEN

- INTRODUCTION
- JAVA PROJECT STRUCTURE
- PROBLEMS WITHOUT MAVEN
- WHAT MAVEN DOES
- WHAT IS BUILD TOOL?
- Pom.xml FILE
- REQUIREMENTS FOR BUILD
- MAVEN ARCHITECTURE
- MAVEN BUILD LIFE CYCLE
- MAVEN COMPILE
- MAVEN TEST
- MAVEN PACKAGE
- MAVEN DEPLOY
- MAVEN CLEAR
- MAVEN DIRECTORY STRUCTURE
- GENERATING WAR FILE
- GENERATING JAR FILE
- MAVEN VS ANT
- INTERVIEW QUESTIONS

JENKINS:

- INTRODUCTION
- WORKFLOW
- ADVANTAGES
- JENKINS ALTERNATIVES

- MASTER – SLAVE CONCEPT
- JENKINS SETUP
- JAVA INSTALLATION
- GIT INTEGRATION
- MAVEN INTEGRATION
- JOBS IN JENKINS
- MAVEN JOB, TASK
- PARAMETER BUILDING
- CHOICE PARAMETER
- FILE PARAMETER
- BRANCH BUILDING
- SCHEDULE PROJECT
- CRON SYNTAXES
- WEBHOOKS
- POLL SCM
- LINKED PROJECTS
- UP STREAM
- DOWN STREAM
- PIPELINES WORKFLOW
- DECLARATIVE PIPELINE
- DISABLING THE PROJECT
- CONSOLE OUTPUT VIEWS
- SHELL EXECUTING
- PLUGIN MANAGEMNET
- PERMALINKS
- PIPELINES
- JENKINS FILE
- JENKINS PIPELINE COMPONENTS
- PIPELINE VIEW
- SCRIPTED PIPELINE
- DECLARATIVE PIPELINE
- HELLO WORLD PIPELINE
- INTEGARTION PIPELINE
- PERMALINKS
- EDITING BUILD INFO
- LABELS
- USER MANAGEMENT
- INTERVIEW QUESTION

DOCKER

- INTRODUCTION
- LEVEL VIRTUALIZATION
- DOCKER ARCHITECTURE
- DOCKER COMPONENTS
- DOCKER COMMANDS
- BUILD IMAGE FROM CONTAINER

- CREATING CUSTOM IMAGES
- DOCKER FILE
- DOCKER FILE COMPONENTS
- DOCKER FILE CREATION
- DOCKER VOLUMES
- USES OF VOLUMES
- CREATING VOLUMES
- CREATING VOLUMES BY USING COMMANDS
- VOLUMES (CONTAINER - CONTAINER)
- VOLUMES (HOST - CONTAINER)
- CREATING A VOLUME FROM FILE
- DOCKER PORT MAPPING
- CONNECTING JENKINS DASHBOARD
- DOCKER HUB
- DOCKER PUSH
- DOCKER PULL
- DOCKER LOGIN
- INTERVIEW QUESTIONS

PRAMOTHOES

- HISTORY
- WHY PRAMOTHOES
- FEATURES
- PHASES OF MONITORING
- PRAMOTHOES ARCHITECTURE
- HOW IT WORKS
- PRE REQUISITES
- DASHBOARD OVERVIEW
- INSTALLATION OF NAGIOS
- INTERVIEW QUESTIONS

ANSIBLE

- HISTORY
- ADVANTAGES & DISADVANTAGES
- ANSIBLE WORKFLOW
- CHEF WORKFLOW
- ANSIBLE INVENTORY HOST PATTREN
- HOST PATTERNS
- Ad-Hoc COMMANDS {
- ANSIBLE MODULES
- PLAYBOOKS
- YAML
- VARIABLES
- HANDLERS

- LOOPS
- CONDITIONS
- VAULT
- ROLES
- GALAXY
- ANSIBLE TAGS
- ANALYSIS WITH DIFFERENT TOOLS
- INTERVIEW QUESTIONS

KUBERNETES

- HISTORY
- ONLINE PLATFORM FOR K8s
- CLOUD BASED K8s
- INSTALLATION TOOLS
- CONTAINER SCALEUP PROBLEMS
- FEATURES
- DOCKER SWARM Vs K8s
- ARCHITECTURE
- MASTER COMPONENTS
- NODE COMPONENTS
- WORKING WITH K8s
- ROLE OF MASTER
- COMPONENTS OF CONTROL PLANE
 - KUBE-API SERVER
 - ETDC
 - FEATURES
 - KUBE-SCHEDULER
 - CONTROL MANAGER
- NODE COMPONENTS
 - KUBELET
 - CONTAINER ENGINE
 - KUBE-PROXY
- POD
 - MULTI CONTAINER POD
 - LIMITATIONS
 - HIGHER LEVEL K8s OBJECTS
 - IMPORTANT NOTATIONS
 - WORKING
- MINKUBE INSTALATION
- KUBECTL INSTALLATION
- DEPLOYING AN APP
- INTERVIEW QUESTIONS

TERRAFORM

- INTRODUCTION
- HISTORY

- USES
- ADVANTAGES & DIS ADVANTAGES
- TERRAFORM SETUP & INSTALLATION
- TERRAFROM INIT
- TERRAFORM PLAN
- TERRAFORM APPLY
- TERRAFORM DESTROY
- CREATING A TERRFILE (MAIN.TF)
- CREATING VPC
- CREATING EC2
- CREATING S3 BUCKET
- CREATING SECURITY GROUPS
- CREATING SUBNETS
- ROLE BASED AUTHENTICATION
- S3 BACKEND SETUP
- TERRAFORM VARIABLES
- STRING
- NUMBER
- BOOLEAN
- LIST
- TERRAFORM LOOPS
- TERRAFORM WORKSPACES
- TERRAFORM LOCALS
- TERRAFORM OUTPUTS
- TERRAFORM MULTIPLE TFVAR FILES

ARTIFACTORY:

- NEXUS

CODEQUALITY ANALAYSIS:

SONARQUBE

REALTIME TOOLS:

- PUTTY
- PUTTYGEN

SHELL SCRIPTING:

- INTRODUCTION
- REDIRECTION
- COMMANDS TO READ A FILE
- GREP COMMAND
- CUT COMMAND
- AWK COMMAND
- SIMPLE USEFULL COMMANDS FOR SHELL SCRIPTING

- BASIC OF SHELL SCRIPTING
- STRING OPERATIONS TO WRITE SHELL SCRIPTING
- INPUT AND OUTPUT COMMANDS FOR SHELL SCRIPTING

PYTHON SCRIPTING:

- INTRODUCTION
- BASICS OF PRINT, INDENTATION, COMMENTS
- BASICS OF VARIABLES AND DATA TYPES
- COMPLETE STRING OPERATIONS
- DATA STRUCTURE OPERATIONS
- OPERATORS OF PYTHON
- CONDITIONAL STATEMENT
- WORKING WITH PYTHON MODULE
- SYS MODULE
- OS MODULE
- LOOPS, FOR AND WHILE LOOPS WITH BREAK CONTINUE AND PASS
- DATETIME MODULE TO WORK WITH DATES AND TIME

HELM CHARTS:

- INTRODUCTION
- HELM FUNDAMENTALS
- HELM IN ACTION
- ADVANCED COMMANDS
- CREATE CHARTS
- TEMPLATES DEEP DIVE
- ADVANCED CHARTS

REAL TIME PROJECTS:

- JAVA Application Deployments
- Integrating Automation Best Practices for Build & Release
- DevOps CICD Project with Kubernetes