**SYLLABUS**

**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
* PROJECT

**DEVOPS**

**GIT:**

* VCS HISTORY
* REVISION CONTROL SYSTEM
* SUBVERSION
* GIT STAGES
* WORKING DIRECTORY
* 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 E
* GIT CLONING
* GIT BRANCH
* GIT MERGE
* GIT FORK
* GIT STASH
* GIT CHERRYPICK
* 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
  + GENRETATING 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
  + LINKED PROJECTS
  + UP STREAM
  + DOWN STREAM
  + PIPELINES
  + USER MANAGEMENT
  + INTERVIEW QUESTION

**DOCKER**

* + INTRODUCTION
  + LEVEL VIRTUALIZATION
  + DOCKER COMMANDS
  + BUILD IMAGE FROM CONTAINER
  + DOCKER FILE
  + DOKCER 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
  + DIFFERENCE B/W EXEC AND ATTACH
  + DIFFERENCE B/W EXPOSE AND PUBLISH
  + DOCKER HUB
  + DOCKER PUSH
  + DOCKER PULL
  + SOME ADVANCE COMMANDS
  + INTERVIEW QUESTIONS

**NAGIOS**

* + HISTORY
  + WHY NAGIOS
  + FEATURES
  + PHASES OF MONITORING
  + NAGIOS ARCHITECTURE
  + HOW IT WORKS
  + PRE REQUISTES
  + DASHBOARD OVERVIEW
  + INSTALLATION OF NAGIOS
  + INTERVIEW QUESTIONS

**ANSIBLE**

* + HISTORY
  + ADVANTAGES & DISADVANTAGES
  + ANSIBLE WORKFLOW
  + CHEF WORKFLOW
  + ANSIBLE INVENTORY HOST PATTREN
  + HOST PATTRENS
  + Ad-Hoc COMMANDS {
  + ANSIBLE MODULES
  + PLAYBOOKS
  + YAML
  + VARIABLES
  + HANDLERS
  + LOOPS
  + CONDITIONS
  + VAULT
  + ROLES
  + 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
  + BOOTSTRAPING THE MASTER NODE (IN MASTER)
  + 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

**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

**OTHER TOPICS:**

* SERVER TYPES
* WEBSERVER TYPES
* VIRTUAL MACHINE TYPES
* AWS THEORY
* AGILE THERORY
* SCRUM THEORY

**REALTIME TOOLS:**

* PUTTY
* PUTTYGEN
* SUPERPUTTY
* PGADMIN