

COURSE CURRICULUM				
SESSION	TOPICS	SESSION - Title	CONTENT DESCRIPTION	TASKS
Day 1	LINUX - Introduction	Day 1 - LINUX - Introduction	Introduction to Linux Basic Commands More Commands (mkdir, cp, mv, touch, etc) Filters Redirections Vagrant Infrastructure Setup - [AWS/VM/WSL]	Create 20 files with .txt extensions and rename the first 5 files to .yaml extension Print the latest created top 5 files among the total no of files
Day 2	LINUX - Users & Group	Day 2 - LINUX - Users & Group	Users & Groups Server Management in Linux File Permissions Cron Jobs Process Archiving Ubuntu Based Commands	Create a file with .txt extension (/home/demo.txt). Change the permission set if that file, so that any user can read it, group can read/write & owner can read/write/execute it.
Day 3	LINUX - Network Basic	Day 3 - LINUX - Network Basic	Introduction to Networking Components Inside the Network OSI Model (7 Layer) Classification of Networks based on Geography Network Devices: Router and Switch Home Network Example Understanding Network and IP Public and Private IP Networking Commands	Get me IP address of particular domain (guvi.in) How do I find my CPU/memory usage of my server? Test the connectivity between 2 nodes? I have deployed an application in guvi.com:9000, and logs shows my app is running, but I'm unable to view the page. Check whether my port is open or not ?
Day 1	SDLC - Introction to methodologie	Day 1 - SDLC - Introction to methodologie	What is SDLC? Types Of SDLC Methods. What is Agile Methodology? What is SCRUM Methodology?	
Day 2	SDLC - Introduction to DevOps	Day 2 - SDLC - Introduction to DevOps	Introduction to DevOps and Continuous Integration What is DevOps? Need for DevOps Culture Continuous Integration (CI) / Continuous Delivery (CD) Benefits of DevOps	
Day 3	VCS - Git & GitHub	Day 3 - VCS - Git & GitHub	Introduction to GIT & GITHUB Versioning Branches & More Rollback Git ssh login Git commands	Establish a new directory, populate it with script files, initiate an empty repository on GitHub, convert the local directory into a Git repository, and link it to GitHub for pushing the code into the repository.
Day 4	Introduction to Scripting	Day 4 - Introduction to Scripting	Introduction to Bash Scripting Sample Script Variables & System Variables Command Line Arguments Decision Making Loops Monitoring Scripts SSH Key Exchange	Create a shell script to print the HTTP error code of guvi.in & print, the success/failure message based on the error code response Given a file, replace all occurrence of the word ""give"" with ""learning"" from 5th line till the end in only those lines that contain the word "welcome"
Day 5	Bash Scripting	Day 5 - Bash Scripting	System Variables Exporting the variables user input Decision Making Loops While Loops Writing the shell script to host the website	Syntax for all loops in shell scripting

Day 1	Containers - Intoduction to Docker	Day 1 - Containers - Intoduction to Docker	Docker and Containers Introduction to Containers What is Docker? Base Setup for Docker Containers	
Day 2	Containers - Microservice Architec	Day 2 - Containers - Microservice Archite	Introduction Docker installation and commands setup Docker logs and Docker volumes	Install docker on EC2 and explore the docker commands (docker images, containers, volumes, network)
Day 3	Containers - Microservice Architec	Day 3 - Containers - Microservice Archite	Hands-On Docker Containers Microservices Multistage Dockerfile Docker Registry	Create a dockerfile, docker-compose file which when executed must display your basic details in website
Day 4	Containers - Docker Compose	Day 4 - Containers - Docker Compose	Building Images Docker compose Docker volumes & Networks	Create a custom docker image for nginx and deploy it using docker compose, where the volume bind mount should be at /var/opt/nginx location. Push the created custom docker image to your docker-hub.
Day 5	Containers - Docker Compose	Day 5 - Docker compose	Docker compose with Multiple Docker Container Deploying and Troubleshooting	
Day 1	Jenkins - Introduction	Day 1 - Jenkins - Introduction	Introduction to Jenkins How to change Home Directory How to use Jenkins from the command line How to create Users + Manage + Assign Roles Jenkins authentication and authorization	Launch jenkins and explore creating projects and users
Day 2	Jenkins - Configuration	Day 2 - Jenkins - Configuration	Basic Configurations Jenkins integration with GIT (SCM) How to add GitHub Credentials How to do Automated Deployment How to send Email from Jenkins	Create a simple script file , with some data present it and push it to repo. Create a project in Jenkins connected to your GitHub repository. When a commit is made to your repo, automatically build must get triggered from Jenkins and the output must be shared to me via email."
Day 3	Jenkins - Configuration	Day 3 End to End CICD Pipeline creation	End to End CICD pipeline creation with best practices	
Day 1	AWS - Cloud Computing & IAM	Day 1 - AWS - Cloud Computing & IAM	What is Cloud Computing Introduction to AWS (Amazon Web Services) EC2 (Elastic Compute Cloud) Launching an EC2 Instance and Accessing it via CLI IAM	Create a windows Vm machine in AWS and connect with RDP open CMD in windows share the about system info
Day 2	AWS - S3,EFS	Day 2 - AWS - S3 & EFS	S3 & EFS	
Day 3	AWS - EBS ,Snapshot	Day 3 - AWS - EBS ,Snapshot	EBS & Mounting on EBS EBS snapshots	Launch an EC2 instance (Linux and Windows) along with a web server. Then, create an EBS volume of 5 GB, attach it to an EC2 machine (Linux and Windows), and take a snapshot. Finally, create an EBS volume using the taken snapshot.
Day 4	AWS -- VPC and Dynamo DB	Day 4 - AWS -- VPC and Dynamo DB	VPC & Dynamo Db	set up a VPC with an Internet gateway, create a public subnet with 256 IP addresses, a private subnet with 156 IP addresses, make a route table connecting the Internet gateway and the subnets, and launch a Linux EC2 instance by using above vpc and public subnet.
Day 5	AWS - ELB,ASG, Cloud watch ,SNS	Day 5 - AWS - ELB,ASG, Cloud watch ,SNS	ELB & Autoscaling Cloud watch SNS & SQS	Create a S3 bucket, with no public access and upload files to the bucket & view the logs using cloudwatch for the uploaded files. Launch two ec2-instances and connect it to a application load balancer, where the output traffic from the server must be an load balancer IP address
Day 6	AWS - Elastic Beanstalk & RDS	Day 6 - AWS - Elastic Beanstalk & RDS	Beanstalk RDS & App setup on Beanstalk	
Day 7	AWS - Code Pipeline	Day 7 - AWS - Code Pipeline	Code commit & build Build Deploy and Codepipeline	Deploy a simple Nginx application using AWS code commit and deploy & access via browser
Day 1	Iac - Terraform Introduction	Day 1 - Iac - Terraform Introduction	Introduction to Terraform Why Infrastructure as Code (IaC) is important Installing Terraform Authentication with AWS Creating AWS Instances, Updating, and Deleting with T	Launch Linux EC2 instances in two regions using a single Terraform file.

Day 2	Iac - Terraform	Day 2 - Iac - Terraform	How does terraform get the state? How to save state at remote? Create AWS resources using terraform (VPC, Subnet,	create 2 EC2 instance on 2 different regions and install nginx using terraform script
Day 3	Iac - Terraform	Day 3 - Terraform	Key Values and Secrets	
Day 4	Iac - Terraform	Day 4 - Terraform	Terraform Modules Terraform template for EKS Cluster creation	
Day 1	Kubernetes Introduction	Day 1 - Kubernetes Introduction	Introduction to Kubernetes Setting up Minikube for Kubernetes Kubernetes Objects and Documentation	
Day 2	Kubernetes - Kube Objects & Namespaces	Day 2 - Kubernetes - Kube Objects & Namespaces	Kube Config and Namespace AWS EKS Cluster Creation Deployment in Kubernetes	Setup minikube at your local and explore creating namespaces (Go through official documentation)
Day 3	Kubernetes - Pods & Services	Day 3 - Kubernetes - Pods & Services	Pods and Services in Kubernetes Deployment	Create the K8s EKS, further you have to do the deployment of Nginx application
Day 4	Kubernetes	Day 4 - Storage	PV & PVC Configmap Secrets	
Day 5	Kubernetes	Day 4 - Advanced Kubernetes	Ingress Helm Charts	
Day 1	Monitoring Tool -Prometheus & Grafana	Day 1 - Monitoring Tool -Prometheus & Grafana	Prometheus Architecture Installation and configuration of prometheus push and Alerting - push gateways Alert Manager prometheus graphs	
Day 2	Monitoring Tool -Prometheus & Grafana	Day 2 - Monitoring Tool -Prometheus & Grafana	installation and configuration of grafana Using Grafana to visualize pre Build dashboard PromQL PromQL Operators, Functions, and APIs	
Day 3	Monitoring Tool -Prometheus & Grafana	Day 3 - Monitoring Tool -Prometheus & Grafana	Observability with grafana Creating and managing dashboards Export and Import dashboards Sharing dashboard Grafana Plugins Launching an EC2 Instance and Monitoring it using Prometheus	Install Prometheus and Grafana on a Linux EC2 machine, connect Prometheus to Grafana, and create a dashboard to view metrics.
Additional session	Ansible	Additional session - Ansible	Basis of Ansible Ansible installation Ad-hoc commands, playbooks, Modules Roles & Handlers	
Additional session	Iac - Cloud Formation	Additional session - Iac - Cloud Formation	Introduction to Cloud Formation Simple example using Cloud Formation Intrinsic Function	