

DATE		TOPICS	PROJECT / ASSIGNMENT
		DEV oPS	
May 7 2024		ORIENTAION	
May 9 2024			
May 14 2024	Week 1	Settion1 Introduction About this course, Introduction, What is DevOps?, Q & A, What is Continuous Integration?, What is Continuous Delivery? Course Material	
May 16 2024		Section 2: Prerequisites Info & Setup, Tools Prerequisite Information, Chocolatey for Windows, Homebrew for MacOS	
May 21 2024	Week 2	Installing Softwares, Tools Prerequisites for Ubuntu 20, Signups, AWS Setup, Outro	
May 23 2024		Vm Setup Welcome to virtualization, What is Virtualization, Introduction, VM-Manually(Windows & MacOS Intel chip) VM-Automatically(Windows & MacOS Intel chip), VM on MacOS M1 chip, Outro	
May 28 2024	Week 3	Section 4: Linux, ntroduction to Linux, Commands and File systems More Commands (mkdir, cp, mv, touch etc), Vim editor, File Types, Filters Redirections, Users and Groups File permissions, Sudo, Package Management, Services, Processes, Archiving, Ubuntu commands, . Linux Commands	
May 30 2024		Vagrant & Linux Servers , Vagrant-vms, Vagrant IP, RAM & CPU, Vagrant Sync Directories, Provisioning Website Setup, Wordpress Setup, Automate Website setup, . Automate Wordpress Setup, Multi VM Vagrant file	
June 4 2024	Week 4	Section 6: Variables, JSON & YAML, Introduction Variables & Python DS, JSON & YAML	
June 6 2024		Section 7: VProfile Project Setup Manual & Automated, Welcome to the Project, Introduction, . VM Setup DB, Cache & Queue Setup	
June 11 2024	Week 5	Nginx Setup, Validate, Automated - Introduction, Automated - Code Automated - Execution	
June 13 2024		Section 8: Networking, ISO, Understanding Networks & IP, Protocols, ports etc Networking Commands	
June 18 2024	Week 6	Section 9: Introducing Containers, . What are containers, What is Docker Hands on Docker Containers, Vprofile Project on Containers, Microservices Microservice Project	
June 20 2024		Section 10: Bash Scripting, Bash Scripts Introduction, VM Setup, First Script, Sample Script, ChatGPT, Variables Command line arguments, System Variables Quotes	
June 25 2024	Week 7	Command Substitution, . Exporting Variables, User Input Decision Making part1, Decision Making part2, Script For Monitoring Loops, While Loops, Remote Command Execution, SSH Key Exchange. Finale Part1, Finale Part2	
June 27 2024		Section 11: AWS Part -1, What is Cloud Computing Introduction, Ec2 Introduction, Ec2 Quick Start, More In Ec2 Part1, More in Ec2 Part2 AWS CLI	
July 2 2024		EBS, EBS Snapshots, ELB Introduction, ELB Hands On, Cloudwatch Introduction, Cloudwatch Hands On EFS, Autoscaling Group Introduction, Autoscaling Group Hands On, S3 Introduction, S3 Website Hosting More in S3, RDS	
July 4 2024	Week 8	Section 12: AWS Cloud For Project Set Up Lift & Shift Introduction, Security Group & Keypairs, . EC2 Instances, Build and Deploy Artifacts, Load Balancer & DNS Autoscaling Group, Validate & Summarize	

DATE		TOPICS	PROJECT / ASSIGNMENT
July 9 2024	Week 8	SECTION 13 Re-Architecting Web App On Aws cloud Introduction, Security Group And Keypairs, RDS, Elastic Cache, Amazon MQ	
July 11 2024	Week 9	DB Initialization, Beanstalk, Update on Security Group & ELB, Build & Deploy Artifact Cloud front, Validate and Summarize	
July 16 2024		Section 14: GIT, Introduction, Versioning, Branches & More Rollback, Git Ssh Login, Git Commands	
July 18 2024	Week 10	Section 15: Maven Introduction Maven Hands-on	
July 23 2024		Section 16: Continuous Integration with Jenkins Introduction, Installation, Freestyle Vs Pipeline As A Code, Installing tools in Jenkins, First Job First Build Job, Plugins, Versioning & more, Flow of Continuous Integration Pipeline Steps for Continuous Integration Pipeline	
July 25 2024	Week 11	149. Jenkins, Nexus & Sonarqube Setup, Plugins for CI, Pipeline As A Code Introduction Code Analysis, Code Analysis Demonstration, Quality Gates, Software Repositories Intro (Nexus) Nexus PAAC Demo, Notification, Slack	
July 30 2024		CI for Docker Intro, Docker PAAC Prereqs info Docker PAAC Demo, Docker CICD Intro, Docker CICD Code, AWS ECS Setup, Docker CICD Demonstration	
August 1 2024	Week 12	Cleanup, Build Triggers Intro, Build Triggers Demo, Jenkins Master and Slave Authentication & Authorization	
August 6 2024		TEST	
August 8 2024	Week 13	Section 17: Python, Introduction Python on Linux, Versions & Indentation, Quotes and Comments Variables, Print Format, Slicing, Operators, Conditions	
August 13 2024		Loops, Break & Continue, Built-in Functions or Methods Functions part-1, Functions part-2, Modules OS Tasks, Python Fabric, Pyscripts, Python Scripts	
August 15 2024	Week 14	Section 18: Ansible Introduction, Setup Ansible & Infra, Inventory & Ping Module Inventory Part 2, YAML & JSON, Ad Hoc Commands, Playbook & Modules Modules - Find, Use, Troubleshoot & Repeat	
August 20 2024		Ansible Configuration, Variables & Debug, Group & Host Variables, Fact Variables, Decision Making Loops, File, copy & template modules Handlers, Roles, Ansible for AWS, Vprofile code	
August 22 2024	Week 15	Section 19: AWS Part-2, VPC Introduction, VPC Design & Components VPC Setup Details, Default VPC, Create VPC, Subnets, Internet Gateway, Route Tables, NAT Gateway Bastion Host	
August 27 2024		AWS CI / CD Project Introduction, Beanstalk, RDS & App Setup on Beanstalk	
August 29 2024	Week 16	Code Commit, Code build Build, Deploy & Code Pipeline	
September 3 2024		Section 21: Docker Introduction, Docker Setup, Docker commands & concepts, Docker Logs	
September 5 2024	Week 17	Docker volumes, Building images, Entrypoint and CMD Docker Compose, Multi Stage Dockerfile	
September 10 2024		Section 22: Containerization Introduction, Overview of Base Image, Dockerhub Setup Setup Docker Engine, Dockerhub & Dockerfile References, App Image Dockerfile	
September 12 2024	Week 18	DB Image Dockerfile, . Web Image Dockerfile, Docker Compose Build and Run, Summarize, Containerizing Microservice Project, Build & Run Microservice App	
September 17 2024		Section 23: Kubernetes Introduction, Minikube for K8s Setup, Kops for K8s Setup, Objects and Documentation, Kube Config Namespace, Pods, Different levels of Logging, . Service Replica Set, Deployment, Command and Arguments	

DATE		TOPICS	PROJECT / ASSIGNMENT
September 19 2024	Week 19	Config Map, Secret, Ingress, Kubectl CLI & Cheatsheet, Extras, Lens, vproappod vproapp-nodeport, vproapp-loadbalancer, vproapp-repl-controller	
September 24 2024		Section 24: App Deployment on Kubernetes Cluster Introduction, Spin K8s Cluster, Volume Prerqs for DB POD, Source Code Overview, Kube secret for passwords DB Deployment Definition	
September 26 2024	Week 20	DB Service Definition, Memcached Deployment & Service, RabbitMQ Deployment & Service Tomcat Deployment, Service & Init containers, Provision Stack on K8s Cluster URL for Website & Wrap up	
October 1 2024		Section 25: Terraform Tutorial Introduction and Exercise 1, Exercise 2 - Variables Exercise 3 - Provisioners, Exercise 4 - Output Exercise 5 - Backend, Exercise 6 - Multi Resource, AWS Elastic Kubernetes Service	
October 3 2024	Week 21	Section 26: GitOps Project, GitOps Introduction, Project Architecture, Prepare Github Repo Github Secrets, Terraform Code, Staging Workflow for Terraform code	
October 8 2024		Main Workflow for Terraform code, Workflow for Vprofile app code, Docker Build & Publish Deploy to EKS, Clean up	
October 10 2024	Week 22	Section 27: CI/CD for Docker Kubernetes Using Jenkins, CI/CD Introduction Jenkins, Sonar & Docker Integration, Plugins, Kubernetes Cluster & Helm,	
October 15 2024		Helm Charts & git repo Setup Writing Pipeline Code, Execution, troubleshooting & Summarizing	
October 17 2024	Week 23	Working with Files in Linux, How to Work with File Links Searching for Files: Working with File Permissions	
October 22 2024		Section 28: CloudFormation Tutorial Introduction, . First Example, Intrinsic Function, Change Set	
October 24 2024	Week 24	More Intrinsic Functions,, Multiple Resources Mappings And Pseudo Parameters, Parameters Outputs, Init	
October 29 2024		EXAMINATION	