



Building Trust &
Careers

FRONTLINES EDUTECH PRIVATE LIMITED

ISO 21001:2018

DEVOPS COURSE

✉ EMAIL

media.frontlines@gmail.com

TELEPHONE

+ (91) - 83330 77727

🌐 WEBSITE

www.frontlinededutech.com



ABOUT US

Frontlines Edutech Private Limited envisions bridging the gap between academia and industry. We understand the pain of unemployment and are trying to wipe off the words of impossible and unemployment from the brains of youth by training and turning them into diamonds. We provide tailor-made, hands-on, and need-based programs on par with industry standards.

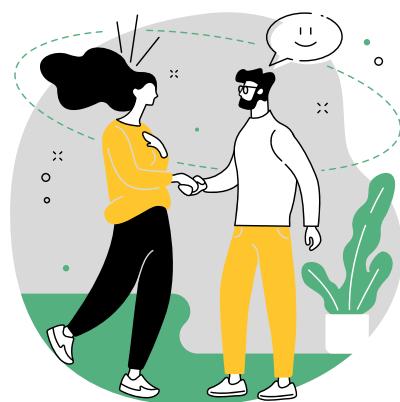
We believe that the youth of today is the future of tomorrow. And so our courses are tutored by experts from top industries who are passionate about mentoring the youth. Since its inception, Frontlines Edutech has earned the trust and gained recognition from thousands of learners across the state.



WHO SHOULD APPLY?

TALK TO US TODAY!

- Anyone from an IT or Non-IT background can apply
- Students
- Experts
- Those wishing to enroll in this course will be required to register through our website www.frontlinesedutech.com.





WHY US

We are Success Trainers, Mentors, and Motivators with a passion for helping you be the best. We are warm and wise, positive and proactive, caring and daring, fun and focused. Our intention is always for your highest good and greatest growth. We make the learning just as enjoyable as it is powerful.

1 Industry Standard Training

2 Solution-Focused

3 Results-Driven

4 Affordable

5 Transparent

6 Experience

7 Quality

We make a BIG difference



WHY LEARN THIS COURSE?

- This course is for those who want to start their coding journey, whether a beginner or an expert.
- No prior programming knowledge is required.
- This course covers basics to advanced concepts straightforwardly and systematically.
- We take special care of Non-IT students
- Easy to learn
- Beginner Friendly
- The diversity of our learners adds richness to course discussions and interactions.





DELIVERABLES



FROM SCRATCH TO
MASTER LEVEL TRAINING



DAILY ASSIGNMENTS



INTERVIEW GUIDANCE



Q&A SESSIONS



ON-DEMAND VIDEO
COURSE CONTENT



RESUME BUILDING



LINKEDIN PROFILE BUILDING



CERTIFICATION OF COMPLETION



PLACEMENT UPDATES



DOWNLOADABLE RESOURCES



DEVOPS-SYLLABUS

Module 1: LINUX

- Linux introduction
- Flavors on linux
- Linux history
- Linux advantages
- System information
- Hardware information
- File commands
- Vim editor
- Users
- Groups
- File permissions
- Networking
- Compression/archive
- Disk usage
- Package installation
- Scripting
- FHS/Directory system
- SED filters
- Grep filters
- Some additional commands
- Project

Module 2: 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 Management (IAM)
- Command Line Interface (CLI)
- Relational Database Service (RDS)
- Elastic Load Balancer (ELB) & Auto Scaling Group (ASG)
- Simple Notification Service (SNS)
- Simple Queue Service (SQS)
- Code build
- Code commit
- Code deploy
- Aws code pipeline

DEVOPS

Module 3: GIT

- VCS history
- Revision control system
- Subversion
- Git stages
- Working directory
- Staging area
- Repository
- Git installation
- Git add
- Git commit
- Git status
- Git logs
- Commit a file using git
- Configuration of user
- Ignoring content
- Git rebase
- Git merge
- Git revert
- Git reset
- Git diff
- Git stash
- Git restore
- Git branches
- Git cherrypick
- Git merge conflicts
- Git amend
- Git head

Module 4: GITHUB

- Git repos (private & public)
- Integrating repos
- Tokens
- Git push
- Git pull
- Git cloning
- Git branch
- Git merge
- Git fork



- Git stash
- Git revert
- Git merge
- Git raw
- Git blame
- Github fileadd
- Compare & pull request
- Making public repo as private
- Ownership transfer
- Archiving repos
- Deleting repos
- Accessing the private repos
- Advantages & disadvantages
- Difference between git and other tools
- Interview questions

Module 5: BIT BUCKET

- Bit bucket repos (private & public)
- Bit bucket projects
- Integrating repos
- Tokens
- Push
- Pull
- Cloning
- Branch
- Merge

Module 6: 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

Module 7: JENKINS

- Introduction
- Workflow
- Continuous integration
- Continuous delivery
- Continuous deployment
- 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
- Master – slave concept
- Environment variables
- Local variable
- Global variable
- Timeout
- Time stamps
- Custom workspace
- Workspace access
- Disabling jobs
- Renaming jobs
- Build pipeline view
- Shell execute
- Pipelines



- Scripted pipelines
- Declarative pipelines
- Pipeline stages
- Pipeline syntax
- Hello world pipeline
- Staged pipeline
- Multi-staged pipeline
- Pipeline logs
- Plugin management
- Console output
- Permalinks
- List view
- Custom view
- Build history
- Cron syntax generator
- Cron jobs
- Poll scm
- Webhooks
- Editing build info
- User management
- Advantages
- Jenkins alternatives
- Interview question

Module 8: DOCKER

- Introduction
- Monolithic Vs Micro Services
- Virtualization & Containerization
- Understanding docker
- Docker architecture
- Docker client
- Docker server
- Docker daemon
- Working with containers
- Docker commands
- Docker rename
- Docket export
- Build image from container
- Creating custom images
- Ways of container creation
- 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)
- Mount volumes
- Creating a volume from file
- Docker networks
- Docker port mapping
- Creating jenkins by docker
- Docker hub
- Docker login
- Docker push
- Docker using jenkins setup
- Integration docker with jenkins
- Deploy a website using nginx
- Deploy a website using httpd
- Docker secrets
- Docker networks
- Docker using maven build
- Docker pull
- Docker swarm
- Docker swarm architecture
- Docker swarm components
- Docker swarm manager
- Docker swarm worker
- Docker swarm service
- Docker compose
- Docker compose advantages
- Docker compose installation
- Docker compose file
- Docker compose file in yaml
- Docker compose single service
- Docker compose Multiple services
- Docker compose file commands
- Docker compose scale
- Docker stack
- Docker portainer



- Container load balancer
- Docker directory data
- Add Vs Copy
- CMD Vs Entrypoint Vs run
- ENV Vs ARG
- Some advance commands
- Interview questions

Module 9: NAGIOS

- History
- Why nagios
- Features
- Phases of monitoring
- Nagios architecture
- How it works
- Prerequisites
- Dashboard overview
- Installation of nagios
- Client server setup
- Interview questions
- Client server setup
- Monitor client server

Module 10: ANSIBLE

- Ansible
- History
- Ansible workflow
- Chef workflow
- Ansible inventory host pattern
- Host patterns
- Ad-hoc commands
- Ansible modules
- Ansible playbooks
- Yaml
- Ansible variables
- Ansible handlers
- Ansible loops
- Ansible conditions
- Ansible vault
- Ansible roles
- Ansible tags

- Ansible dry run
- Ansible pip
- Ansible debug
- Ansible galaxy
- Ansible userinfo
- Ansible git module
- Ansible raw module
- Ansible copy module
- Ansible file module
- Ansible folder module
- Ansible - jenkins setup
- Deploy a webapp using ansible playbook
- Deploy a web services using playbook
- Ansible setup modules
- Ansible debug
- Advantages & disadvantages
- Interview questions

Module 11: KUBERNETES

- History
- Architecture
- Master components
- Node components
- Cluster
- Working with k8s
- Role of master
- Components of control plane
- Kube-API server
- ETCD
- Features
- Kube-scheduler
- Control manager
- Node components
- Kubelet
- Container engine
- Kube-proxy
- Pod
- Multi container pod
- Limitations
- Higher level k8s objects
- Online platform



- Cloud Platforms for k8s
- Container scaleup problems
- Features
- Docker swarm vs k8s
- Important notations
- Minikube
- Kops installation
- Kubectl installation
- Kops
- Cluster creation using kops
- Kubectl
- Manifest files
- Deploying a POD
- Replica controller
- Replica sets
- Daemon-set
- Deployment
- Deployment scaling
- Proportional scaling
- Pause/unpause rolling deployment
- Deployment status
- Deployment scaling
- Kubernetes services
- Cluster-IP
- Node-Port
- Load balancer
- Namespaces
- Config Maps
- Stateless application
- Stateful application
- Deployment Vs stateful application
- Persistent volume
- Persistent volume claim
- Interview questions

Module 12: TERRAFORM

- Introduction
- History
- Uses
- Advantages & dis advantages
- Terraform setup & installation

- Terrafrom init
- Terraform plan
- Terraform apply
- Terraform destroy
- Creating a main.tf
- Role based authentication
- S3 backend setup
- Terraform variables
- String
- Number
- Boolean
- List
- Terraform loops
- Terraform workspaces
- Terraform locals
- Terraform outputs
- Creating VPC
- Creating EC2
- Creating S3 bucket
- Creating security groups
- Creating subnets
- Creating EBS
- Creating EFS
- Terraform multiple tfvar files
- Terraform CLI
- Dynamic block

Module 13: CODE & ARTIFACT STORAGE

- JFROG
- NEXUS
- Sonqrqube

Module 13: INTEGRATIONS

- Git integrated to jenkins
- Maven integrated to jenkins
- Ansible integrated to jenkins
- Docker integrated to jenkins
- Terraform integrated to jenkins
- S3 integrated to jenkins
- Nexus integrated to jenkins



Module 14: REAL TIME PROJECTS:

- Automation deployment using jenkins in multiple ways
- Infra through code using terraform
- Dockerizing an application
- Configuration through ansible
- Deploy application using AWS code pipeline





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GET IN TOUCH WITH US

📞 +(91)-83330 77727

🌐 www.frontlinesedutech.com

✉️ media.frontlines@gmail.com