Hi-Tech
Institution

AWS & DEVOPS
TRAINING SYLLABUS

HI-TECH INSTITUTION

Hi-tech Institution is a trusted IT training institution established in 2017, dedicated to transforming careers through industry-relevant, real-time project-based learning. With a strong presence in Pondicherry, Thiruchitrambalam, and Chennai, we specialize in creating future-ready professionals.

EXPERT FACULTY

At Hi-Tech Institution, training isn't delivered by traditional lecturers — it's led by real-time industry experts. Our AWS & DevOps faculty are seasoned professionals with 10+ years of hands-on experience in cloud computing, automation, CI/CD pipelines, containerization, and large-scale project delivery.

OUR VISION

Our vision is to bridge the gap between traditional learning and industry needs. Our mission is simple: to empower individuals with hands-on skills, globally recognized certifications, and the confidence to excel in the IT world.

WHAT LEANERS SAY

Our students not only succeed— they return. Many alumni re-enroll for additional courses and refer friends, a testament to our quality, trainer expertise, and hands-on approach.

CORPARATE TRUST US

We've successfully partnered with IBM and other forward-thinking organizations to deliver impactful team training. With over 200 batches completed, our track record is built on results, retention, and referrals.

WHO WE SERVE

- **Fresh Graduates –** Gain practical, job-ready skills and enter the IT workforce with confidence.

- **Career Switchers –** Move from non-IT to IT through structured, mentor-led training.

- **Working Professionals –** Upgrade your skillset, achieve promotions, and switch to high-demand roles.

- **Corporate Teams –** Custom programs designed to upskill entire teams for upcoming projects.

- **Final-Year Students –** Strengthen your resume with internships, projects, and certifications before graduation.

- **Non-Technical Backgrounds –** Step-by-step guidance to transition into IT even without coding experience.

- **Job Seekers –** Resume, interview prep, and portfolio building for faster placements.

JOB READY SKILL

Learn in months what usually takes years! With real-time projects and practical training in AWS, DevOps, CI/CD, Docker, Kubernetes, and Cloud Automation, you'll be job-ready and confident to contribute from Day 1.
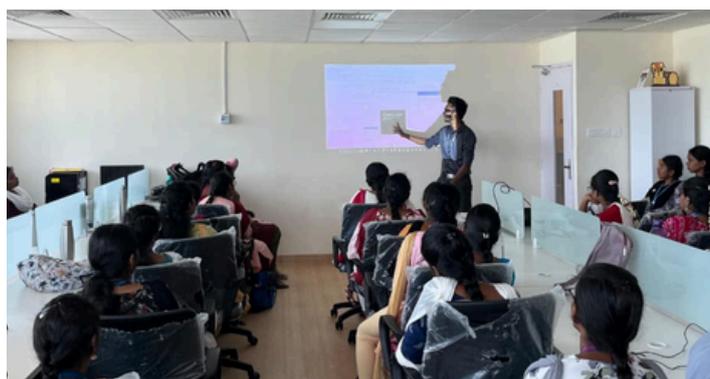
400+
BATCH TRAININGS SUCCESSFULLY COMPLETED

9000+
PROFESSIONALS SUCCESSFULLY TRAINED

"

01 INTERACTIVE LIVE TRAINING
100% live sessions with real-time Q&A and doubt-solving. Engaging, interactive, and never boring like recorded videos.

02 DAILY HANDS-ON LABS
Every topic comes with guided labs and tasks so you learn by doing, not just watching.

03 ONE-TO-ONE DOUBT SOLVING
Struggling with a concept? Get personal 1:1 mentoring to clear doubts quickly.

04 MENTOR SUPPORT BEYOND CLASS
Get lifetime trainer guidance and alumni group access for continuous support.

05 FLEXIBLE LEARNING
Morning, evening, and weekend batches to fit your schedule.

DOMAIN EXPERTISE

A Journey of Innovation and Success

CAREER GROWTH IN THIS DOMAIN

A career in AWS & DevOps offers high salaries and global opportunities — with DevOps Engineers earning ₹7–18 LPA and Cloud Architects ₹15–30 LPA+, driven by the rising demand for cloud migration, automation, and scalable infrastructure across industries worldwide.

OUR SPECIALIZATION

Unlike generic IT courses, we focus on AWS & DevOps mastery. Our training dives deep into cloud computing, CI/CD pipelines, containerization, Kubernetes, infrastructure as code, and automation. Every session bridges theory with practice — so you don't just learn concepts, you implement them on real-time projects and industry scenarios just like top companies do.

INDUSTRY-RELEVANT CURRICULUM

- Designed with corporate inputs
- Updated every quarter
- Covers end-to-end AWS & DevOps lifecycle

CERTIFICATION SUPPORT

We provide complete support to help you crack top certifications like AWS Certified Solutions Architect, AWS Certified DevOps Engineer – Professional, and Azure DevOps Engineer Expert — with practice exams, expert guidance, and step-by-step mentorship for guaranteed success.

INTERNSHIP

Learning without practice is incomplete. That's why we provide internships with real AWS & DevOps projects covering cloud deployment, CI/CD pipelines, containerization, and automation. Every student works on live scenarios, builds real solutions, and earns an internship certificate that adds strong value to resumes and interviews.

PORTFOLIO BUILDING

Learning without practice is incomplete. That's why we offer internships with real AWS & DevOps applications and hands-on cloud challenges. Students build practical solutions in automation, CI/CD, and containerization, and earn certificates that boost resumes and interview success.

PRACTICAL-FIRST APPROACH

From Day 1, you'll learn by doing through labs, tasks, and real-world projects — gaining hands-on confidence to apply skills instantly.

Table of **Contents**
AWS Services

Introduction to AWS Services

- Overview of AWS Global Infrastructure
- Regions, Availability Zones, and Edge Locations
- Core AWS services categories (Compute, Storage, Networking, Database, Security, DevOps)
- Navigating the AWS Management Console

Introduction to AWS

- History and evolution of AWS
- Shared Responsibility Model
- AWS Free Tier usage and limits
- Billing & Pricing Models (On-demand, Reserved, Spot instances)

Elastic Compute Cloud (EC2) Essentials

- What is EC2 and its importance
- Instance types and families (General, Compute, Memory, GPU optimized)
- EC2 use cases in real-world applications

EC2 Instances

- Launching, configuring, and managing EC2 instances
- Connecting to Linux and Windows instances
- Security groups, key pairs, and SSH access
- Instance lifecycle management
- Hands-on: Deploying a simple web application on EC2

Elastic Block Store (EBS)

- Understanding EBS volumes and types
- Attaching and detaching EBS to EC2
- Snapshots and backups
- Performance tuning for storage-intensive applications
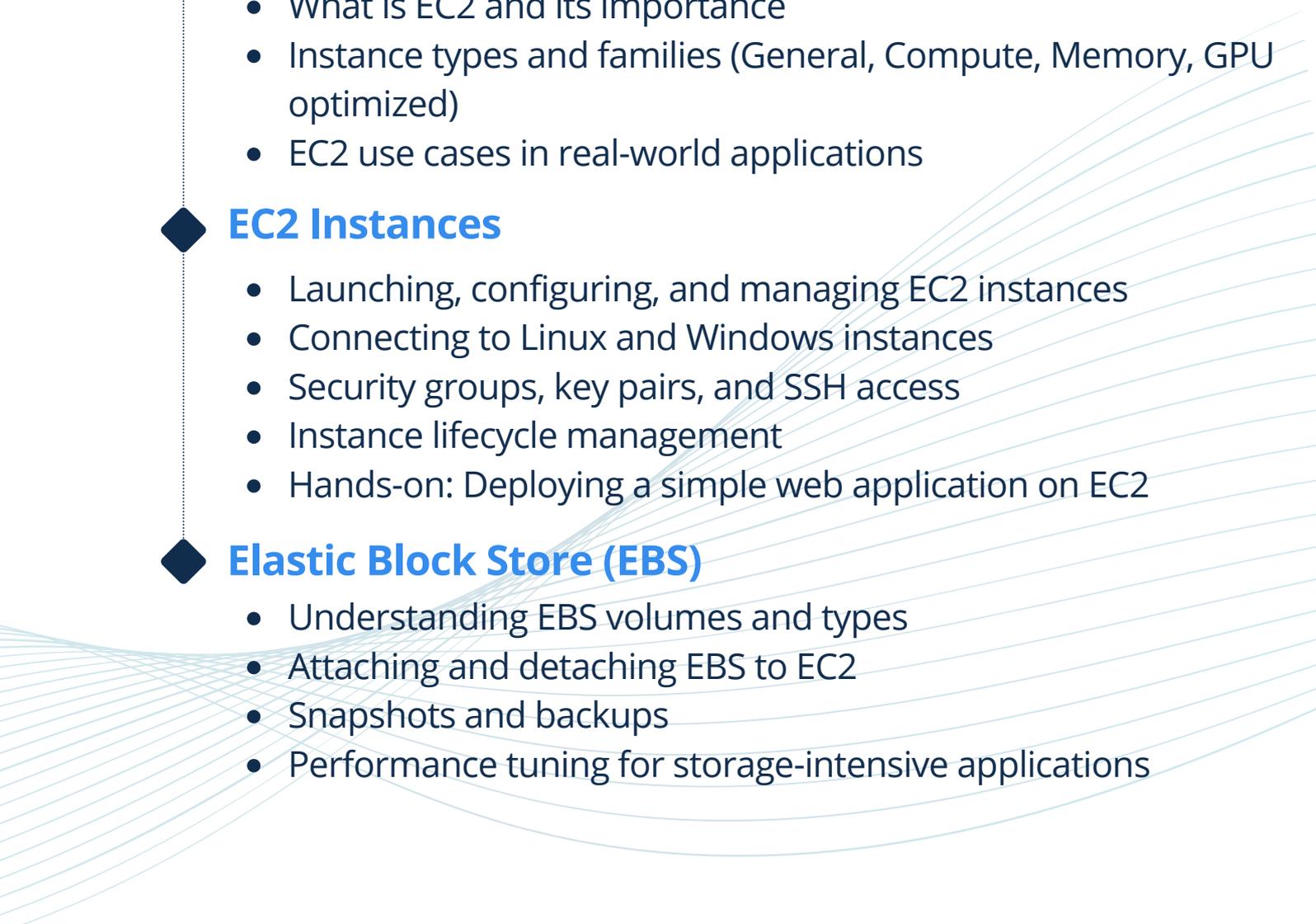
Elastic Load Balancer (ELB)

- Concept of load balancing in cloud
- Types of ELBs: Application, Network, Gateway
- Configuring load balancers with EC2 instances
- High availability and failover strategies

Auto Scaling

- What is Auto Scaling and why it's needed
- Launch configuration & scaling policies
- Dynamic scaling vs. predictive scaling
- Lab: Auto scaling EC2 instances based on CPU utilization

Simple Storage Service (S3)

- S3 bucket creation and storage classes
- Object lifecycle management
- Versioning, replication, and encryption
- Hosting a static website using S3

Glacier Storage

- Introduction to long-term archival storage
- Use cases for Glacier
- Data retrieval options (Expedited, Standard, Bulk)
- Integrating Glacier with S3 for cost optimization

Identity and Access Management (IAM)

- Understanding IAM users, groups, and roles
- IAM policies and permissions
- MFA (Multi-Factor Authentication)
- Best practices for securing AWS accounts

Virtual Private Cloud (VPC)

- Basics of VPC, Subnets, and CIDR blocks
- Internet Gateway, NAT Gateway, and Route Tables
- Security groups vs. NACLs
- Lab: Creating a custom VPC

Route 53

- AWS DNS service overview
- Registering domains and hosting DNS zones
- Routing policies: Simple, Weighted, Latency-based, Failover
- Hands-on: Hosting a domain using Route 53

CloudWatch

- Monitoring resources with CloudWatch
- Custom metrics, alarms, and dashboards
- Integration with Auto Scaling and Lambda
- Practical exercises for monitoring EC2 performance

Simple Notification Service (SNS)

- Concept of publish-subscribe messaging
- Creating topics and subscriptions
- Email, SMS, and Lambda integration with SNS
- Real-world use cases (alerts, fan-out messaging)

Simple Queue Service (SQS)

- Queue-based message handling
- Standard vs. FIFO queues
- Dead-letter queues (DLQ)
- Integration with microservices and serverless applications
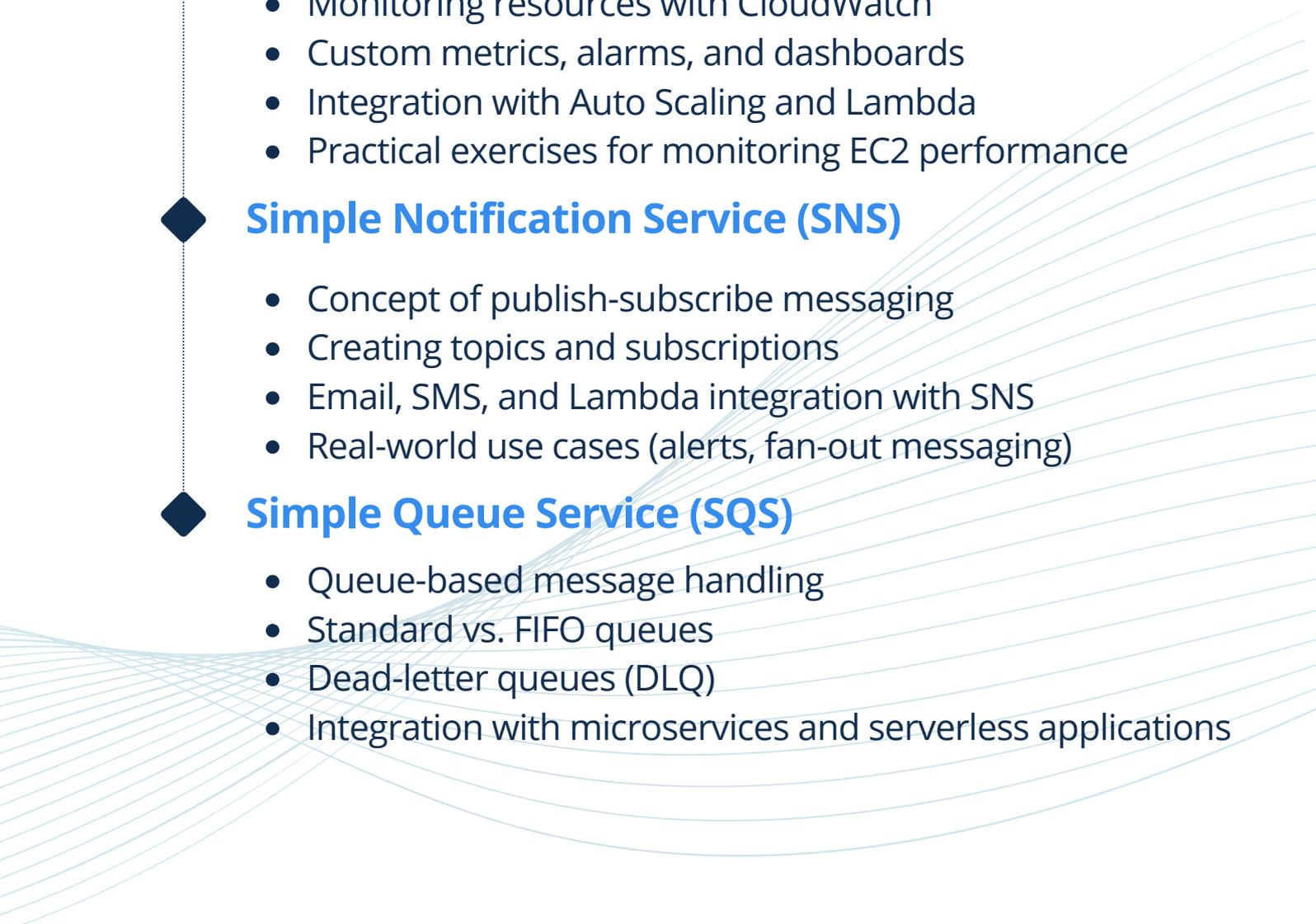
Simple Email Service (SES)

- Overview of SES for transactional and marketing emails
- Domain verification and DKIM setup
- Sending emails programmatically via AWS SDK/CLI
- Real-time analytics and delivery tracking

Elastic Beanstalk

- PaaS overview with Elastic Beanstalk
- Deploying web applications quickly
- Supported platforms (Java, Python, .NET, Node.js, PHP, Go)
- Monitoring and scaling with Beanstalk

Relational Database Service (RDS)

- Introduction to managed relational databases
- Supported engines: MySQL, PostgreSQL, SQL Server, Oracle, Aurora
- Multi-AZ deployments and read replicas
- Backups, snapshots, and monitoring

CloudFront

- What is a Content Delivery Network (CDN)
- Setting up CloudFront with S3 or EC2
- Edge locations and caching
- Use case: Accelerating website performance

ElastiCache

- Overview of in-memory caching
- Redis vs. Memcached engines
- Scaling and replication in ElastiCache
- Real-world scenarios: Session management, caching queries
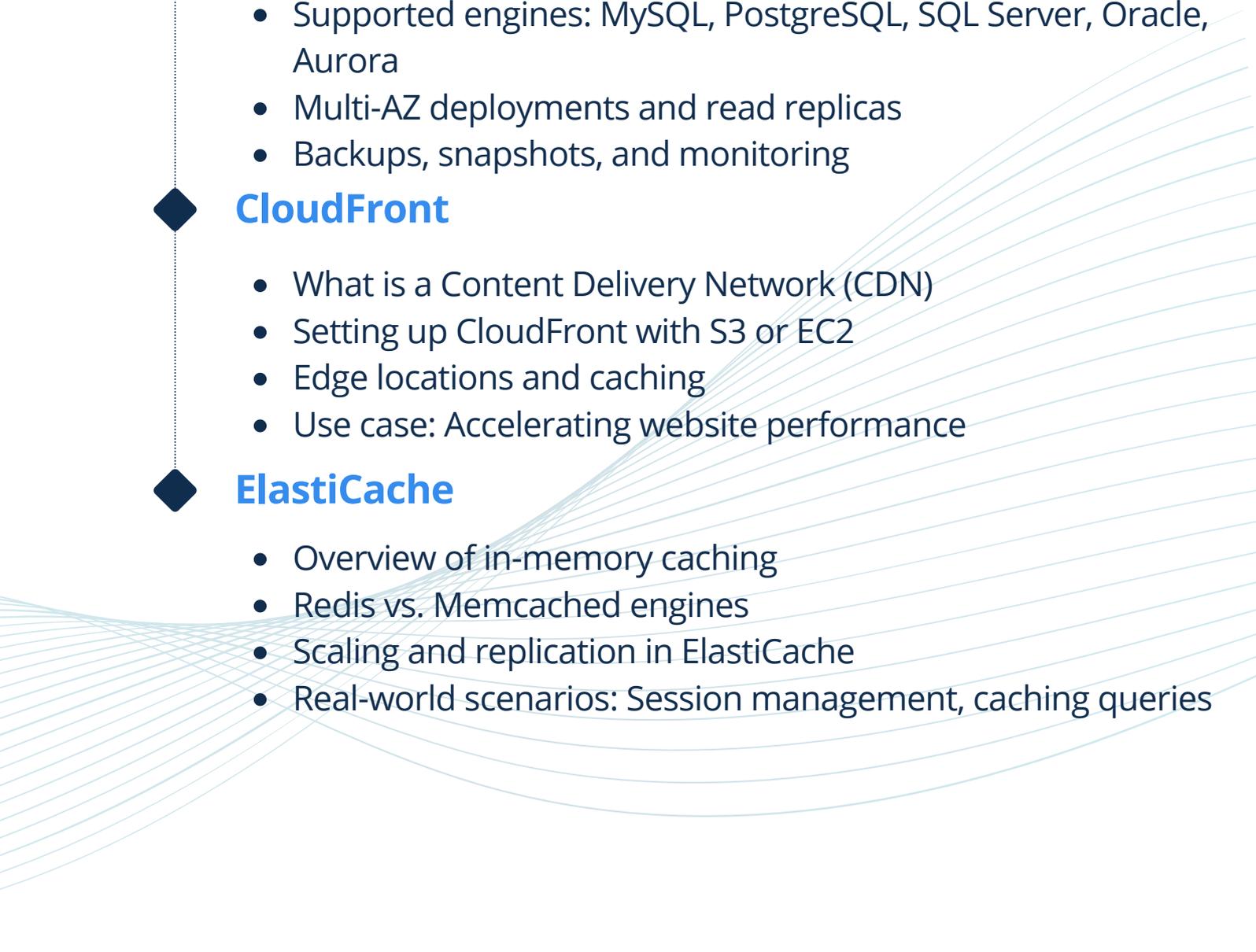
CloudFormation

- Infrastructure as Code (IaC) concepts
- Writing and deploying templates
- Managing stacks and resources automatically
- Use case: Deploying a complete VPC architecture with CloudFormation

Amazon Kinesis

- Introduction to real-time data streaming
- Components: Kinesis Data Streams, Firehose, Analytics
- Integration with AWS services for big data and IoT use cases
- Hands-on: Streaming analytics with Kinesis

Use Cases

- Real-time project examples of AWS in industries:
- E-commerce
- Healthcare
- Banking & Finance
- Media & Entertainment
- How companies scale applications with AWS

AWS Troubleshooting

- Common errors in AWS setups
- Debugging EC2, VPC, IAM, and Storage issues
- Using AWS Trusted Advisor
- Hands-on troubleshooting lab

AWS Architecture and Design

- Best practices for designing AWS solutions
- Well-Architected Framework pillars: Operational Excellence, Security, Reliability, Performance Efficiency, Cost Optimization
- High availability & disaster recovery design patterns

DevOps Syllabus

Python
- Python Fundamentals for DevOps
- Variables, Data Types, Functions & Modules
- Scripting for Automation
- Hands-on: Write Python scripts to manage system tasks

Python Boto3
- Introduction to Boto3 SDK for AWS
- Managing AWS Services Programmatically
- EC2, S3, and IAM with Boto3
- Hands-on: Automate EC2 Instance & S3 Bucket Creation

AWS Lambda
- Serverless Architecture Basics
- Writing Functions in Python
- Triggers & Events with S3, API Gateway, CloudWatch
- Hands-on: Build an Event-Driven Lambda Application

AWS CloudFormation
- Introduction to Infrastructure as Code (IaC)
- CloudFormation Templates & Stacks
- Parameters, Mappings, and Outputs
- Hands-on: Deploy a Multi-Tier Architecture with CloudFormation

Ansible
- Ansible Basics & YAML Playbooks
- Connecting Ansible with AWS Resources
- Automating Configurations & Deployments
- Hands-on: Provision an EC2 Environment with Ansible

Docker

- Containerization Concepts & Docker Basics
- Building & Running Docker Images
- Docker Hub & Private Repositories
- Hands-on: Containerize an Application and Run on EC2

Jenkins

- Jenkins Introduction & Setup
- Continuous Integration (CI) Concepts
- Building Pipelines & Jobs
- Hands-on: Build & Deploy an App on AWS EC2 using Jenkins

GitHub

- Git & GitHub Basics
- Branching, Merging & Pull Requests
- Integrating GitHub with Jenkins & AWS
- Hands-on: Version Control Workflow for CI/CD

SaltStack

- Introduction to SaltStack for Automation
- Master & Minion Architecture
- Configuration Management with Salt States
- Hands-on: Automate Infrastructure Provisioning with SaltStack

Terraform

- Terraform vs. CloudFormation
- Writing Terraform Scripts (HCL)
- Managing AWS Resources with Terraform
- Hands-on: Deploy VPC & EC2 Instances with Terraform

ELK Stack (Elasticsearch, Logstash, Kibana)

- Centralized Logging & Monitoring Concepts
- Elasticsearch for Data Storage
- Logstash for Data Collection
- Kibana for Visualization
- Hands-on: Monitor EC2 Logs with ELK Stack

Kubernetes

- Kubernetes Basics: Pods, Nodes, Services
- Setting up Kubernetes on AWS (EKS)
- Deploying & Scaling Applications
- Hands-on: Deploy a Sample App on Amazon EKS
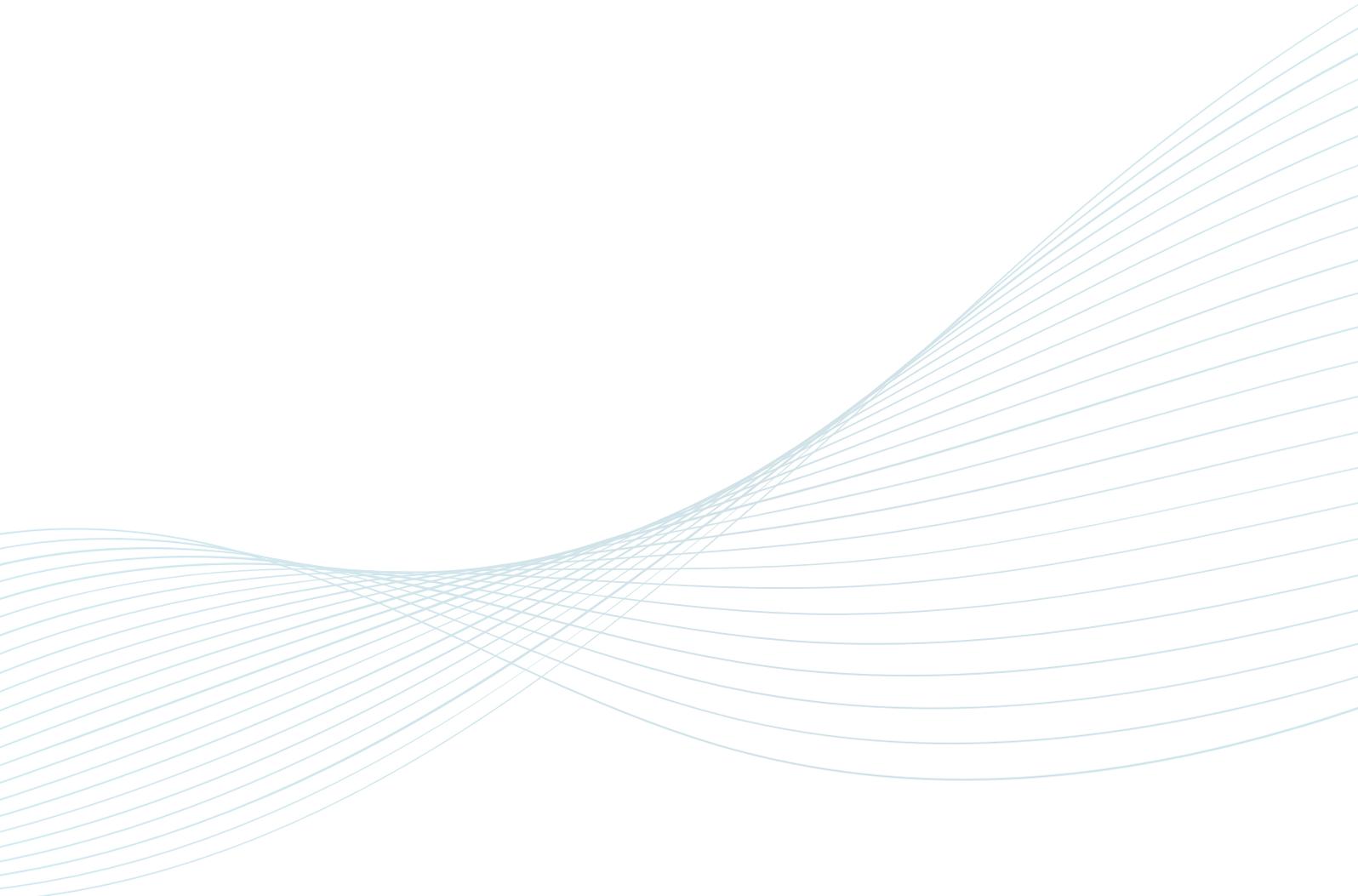
WHAT OUR STUDENTS SAY

We believe results speak louder than promises — and our students' reviews are proof of the trust and transformation we deliver every batch.

K Kirubagaran .D
5 reviews
★★★★☆ 8 months ago

I joined this institute to take training for AWS & Devops. My all over experience is very good 💥. The knowledge given by the sir is very helpful to me 🙏. Thank you.

Harish Kumar
4 reviews
★★★☆☆ 8 months ago

While I joining this institute, I have less knowledge in aws and devops , after the guidance and good teaching by the Mathesh sir I have gained more knowledge. Thank you for your guidance and Teaching.

h harshavardhana
2 reviews
★★★★★ 11 months ago

I recently completed an AWS and DevOps course at Hi-Tech institution, and I couldn't be more satisfied with the experience. The course was incredibly well-structured, covering both fundamental and advanced concepts in a way that was easy to follow yet challenging enough to push my learning boundaries.

Sridhar sri
1 review
★★★★☆ 5 months ago

"Well-organized AWS and DevOps training with experienced mentors. A great place to build practical skills!"

♡ ❤ 3 ⤳

B Bhuvanesh.V
2 reviews
★★★★★ 5 months ago

Good learning environment! The AWS and DevOps sessions were clear, practical, and highly beneficial for beginners

♡ ❤ 2 ⤳

AKASH
2 reviews
★★★★★ 5 months ago

Excellent training on AWS and DevOps! The mentors were knowledgeable, and the sessions were very insightful. Highly recommended!

♡ ❤ 3 ⤳

S Sanjeevi Kumar
1 review
★★★★☆ 3 months ago

I recently completed the AWS DevOps course at HiTech and I'm extremely satisfied with the experience. The trainers were knowledgeable and provided excellent support throughout the course. The hands-on labs and real-world examples helped me gain practical skills and confidence in using AWS services.

Kamal Raj
1 review · 1 photo
★★★★★ 11 months ago

Beyond the classroom, the Hi-Tech Institution center offers excellent support for AWS & Devops The availability of additional resources, such extra practice sessions, is incredibly beneficial. The staff is always approachable and ready to assist with any queries or challenges.

A Anuj Jena
3 reviews
★★★★★ 7 months ago

I have attend AWS batch (Batch Number - B184 & Timing - 7:00 AM - 9:00 AM (Weekend) & it was my good luck to had Hari as my batch instructor. Hari has tremendous knowledge on AWS & DevOps. I learnt lot of new topics related to AWS & DevOps. I want to highlight some point here according to my experience.

Sathyaswarubini Kannan
4 reviews
★★★★★ 7 months ago

I am Sathyaswarubini from Batch -B184, honestly speaking that Hari is a perfect instructor for AWS DevOps session. I am completely impressed with his Youtube videos and coaching. Every session started on time with clear note of him. I spent a great period of time on his sessions and got some confident level to attend the interviews in future. Thank you hari.

Naveen Kumar
1 review
★★★★★ 5 months ago

Had a great experience learning AWS and DevOps at Hi-Tech Institution. The structured training and expert guidance made it worthwhile

♡ ❤ 2 ⤳

D D.Chandru
1 review
★★★★★ 2 weeks ago `NEW`

I had the opportunity to learn AWS Cloud Computing at HTGE Technologies Pvt Ltd for one month, and it was an excellent experience. The training was well-structured, covering both fundamental concepts and practical applications of AWS services. The instructors were knowledgeable, supportive, and always ready to clarify doubts with real-world exampes. which helped me gain confidence in working with cloud tools. The learning environment was friendly, interactive, and career-focused.

v vindhiya e
1 review
★★★★★ 4 days ago `NEW`

I recently completed a one-month Cloud Computing internship at HTGE Technologies Pvt Ltd. It was a great learning experience where I got to work with real cloud platforms like AWS . The team was supportive, and the work environment made it easy to grow and ask questions. I learned a lot in a short time and truly appreciated the hands-on exposure. Highly recommend HTGE for anyone looking to build practical skills in tech.

Check out what our students are saying about us on Google :

https://share.google/hm4sQdfCGAIA3CYHN

Your Future in AWS & DevOps Starts Here

You've explored the course, the curriculum, the career scope, and the success stories. Now comes the most important step — taking action to build your career.

At HTGE Technologies, we are not just another training institute. We are a career-launchpad trusted by 200+ batches and corporate clients like IBM. Our mission is simple: to bridge the gap between learning and real-world application.

MEDIA MENTIONS

Youtube : https://www.youtube.com/@hitechinstitution

LinkedIn : https://www.youtube.com/@hitechinstitution

Instagram : https://www.instagram.com/hitech.institution

Website : www.hitechinstitution.com

COURSE DETAILS

Duration: 3 Months + Internship

Mode : In-Person & On-Line

Language : Tamil & English

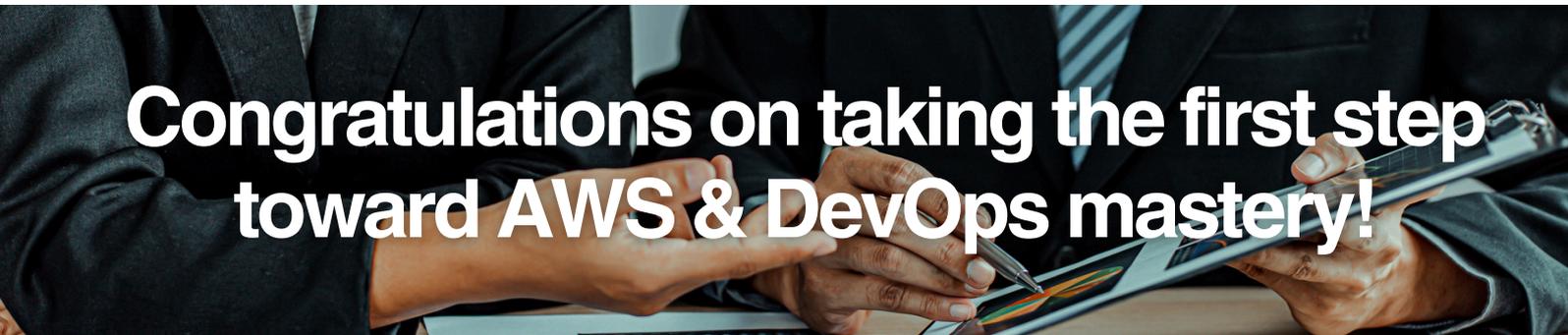**Mode of Training:** Live Online Sessions (with recordings)

Eligibility: Freshers, Working Professionals, Final-Year Students, Career Switchers

READY TO TAKE THE NEXT STEP

Visit: hitechinstitution.com

Call / WhatsApp: +91 7092909192 | +91 7200117161

Congratulations on taking the first step toward AWS & DevOps mastery!