Semester	Topics
1	IT & Programming Fundamentals: Basics of computer networks and operating systems (Linux), Scripting with Python or Bash, Introduction to version control with Git.
2	Introduction to Cloud Computing: Core concepts (IaaS, PaaS, SaaS), Introduction to a major cloud provider (AWS, Azure, or GCP), Core services (Compute, Storage, Networking).
3	Cloud Infrastructure & Automation: Infrastructure as Code (IaC) with Terraform, Managing cloud resources programmatically, Identity and Access Management (IAM).
4	Containerization & Orchestration: Container fundamentals with Docker, Building and managing Docker images and containers, Introduction to container orchestration with Kubernetes.
5	Advanced Kubernetes & DevOps: Managing complex applications on Kubernetes, Implementing CI/CD pipelines, Monitoring and logging.
6	Serverless & Cloud-Native Development: Introduction to serverless computing, Building event-driven architectures, Using managed database services.
7	Cloud Security & Governance: Cloud security principles, Network security, Compliance, cost management, and cloud governance.
8	Cloud Architecture & Specialization: Designing well-architected cloud solutions, Specialization in a specific area, Cloud certification preparation and a final project.