YEARS	SUBJECTS (Modules)	TOPICS	DURATION
Year 1	Cloud Computing Fundamentals	- Overview of Cloud Computing: Benefits, scalability, elasticity, cost-efficiency - Cloud Service Models: IaaS, PaaS, SaaS - Cloud Deployment Models: Public, Private, Hybrid - Major Cloud Platforms: AWS, Azure, GCP, Oracle Cloud - Cloud-Native Applications: Microservices, containerization, serverless	Included in 70 hours
Year 1	Cloud Infrastructure and Networking	- Virtualization and Hypervisor Technologies - Managing VMs in the Cloud - Networking Concepts: VPC, Subnetting, Routing, Security Groups - Load Balancing and Auto-scaling - Hybrid Cloud Networking: AWS Direct Connect, Azure ExpressRoute - Network Security: Firewalls, VPNs, IDS/IPS - Linux Networking in Cloud: Bridges, Bonding, VLANs	Included in 70 hours
Year 1	Cloud Storage and Databases	- Cloud Storage Options: Object, Block, File Storage - Managing Data: AWS S3, Azure Blob, GCP Storage - Cloud Databases: RDS, Azure SQL, Cloud SQL - Data Consistency Models: CAP Theorem, Eventual Consistency - Database Replication and Sharding	Included in 70 hours

Year 1	Cloud Compute Services	- Compute Services: AWS EC2, Azure VMs, GCP Compute Engine - Serverless Computing: AWS Lambda, Azure Functions, GCP Cloud Functions - Building Serverless Applications - Containerization and Orchestration: Docker, Kubernetes - Advanced Containerization: Docker, Kubernetes in cloud - Serverless Design Patterns	Included in 70 hours
	Total for Year 1		**70 hours**
Year 2	Cloud Security	- Identity and Access Management (IAM) - Securing Data in Transit and at Rest - Compliance and Governance: GDPR, HIPAA - Cloud Security Posture Management (CSPM) - Zero Trust Security Model - Advanced Threat Detection: AWS GuardDuty, Azure Sentinel - Advanced Linux Security: SELinux, AppArmor	Included in 70 hours
Year 2	Cloud Monitoring and DevOps	- Cloud Infrastructure Monitoring: AWS CloudWatch, Azure Monitor - Logging and Troubleshooting - DevOps in the Cloud: Automation, CI/CD, IaC - Cloud-Native Observability: Prometheus, Grafana - Cloud Automation: Terraform, Ansible - CI/CD Pipelines: Jenkins, integrating security	Included in 70 hours

Year 2	Cloud Automation and IaC	- Introduction to IaC: Terraform, CloudFormation, ARM - Terraform for Multi-cloud - Automating Cloud Infrastructure: Ansible - Serverless Infrastructure: AWS SAM, Serverless Framework - Cloud Cost Optimization	Included in 70 hours
Year 2	Linux in Cloud Environments	- RHCE for Cloud Infrastructure - Linux System Optimization: Performance tuning - Cloud-Based Automation: Ansible, Puppet - Linux Networking in Cloud: Advanced techniques - Cloud-Based Linux Security: Hardening, firewalls - Managing Cloud Instances with RHCE Skills	Included in 70 hours
Year 2	Cloud Certifications and Practical Applications	- AWS, Azure, GCP Certification Paths - RHCE and Cloud Integration - Certification Labs - Case Studies: Hybrid cloud, cloud-native apps - Real-world Applications: Secure, compliant cloud for regulated industries	Included in 70 hours
	Total for Year 2		**70 hours**