Cloud network engineer

1.Introduction to Cloud Computing
1.1   Overview of cloud computing models (IaaS, PaaS, SaaS)
1.2   Benefits and challenges of cloud computing
1.3   Cloud service providers (AWS, Azure, Google Cloud, etc.)
1.4   Cloud deployment models (public, private, hybrid)

2.Networking Fundamentals
2.1   Introduction to networking concepts
2.2   OSI model and TCP/IP protocol suite
2.3   Routing and switching basics
2.4   Network topologies and protocols

3.Cloud Network Basics
3.1   Cloud network services and components (VPCs, VNets, etc.)
3.2   Cloud-based load balancing and content delivery
3.3   Virtual Private Cloud (VPC) setup and configuration
3.4   Elastic Load Balancers (ELB) and Application Gateway

4.Cloud Security
4.1   Cloud security fundamentals
4.2   Identity and Access Management (IAM) in the cloud
4.3   Network security groups and firewalls
4.4   Data encryption and compliance in the cloud

5.Cloud Networking Services
5.1 Virtual Private Network (VPN) connectivity to the cloud
5.2 Direct Connect (AWS) and ExpressRoute (Azure) for dedicatedconnections

6. Cloud Network Monitoring and Troubleshooting

6.1 Network monitoring and logging in the cloud

6.2 Troubleshooting common network issues

6.3 Performance optimization and scaling

6.4 Disaster recovery and backup strategies

7. Cloud Network Automation

7.1 Infrastructure as Code (IaC) concepts (Terraform, CloudFormation, etc.)

7.2 Automation scripts for network provisioning and management

7.3 Configuration management tools (Ansible, Puppet, etc.)

8. Case Studies and Hands-On Labs

8.1 Practical exercises and labs to apply learned concepts

8.2 Case studies of real-world cloud network deployments

8.3 Best practices and design considerations

9. Final Project

9.1 Design and implement a cloud network architecture

9.2 Present and defend the project to peers or instructors

10. Certification and Career Development

10.1 Preparing for cloud networking certifications

10.2 Career paths and opportunities for cloud network engineers

10.3 Resume building and interview preparation.