





COURSE MODULES

Design Secure Architectures



1. Design secure access to AWS resources

- Access controls and management across multiple accounts
- AWS federated access & identity services for eg AWS IAM],etc
- AWS global infrastructure (for eg, Availability Zones, etc.,)
- AWS security best practices
- The AWS shared responsibility model

2. Design secure workloads and applications

- Application configuration and credentials security
- AWS service endpoints
- Control ports, protocols, and network traffic on AWS
- Secure application access
- Security services with appropriate use cases
- Amazon GuardDuty, Amazon Macie)
- Threat vectors external to AWS

3. Determine appropriate data security controls

- Data access and governance
- Data recovery
- Data retention and classification
- Encryption and appropriate key management

For Enquiry: +91 8680961847

Design Resilient Architectures

4. Design scalable and loosely Coupled Architectures

- API creation and management
- AWS managed services with appropriate use cases
- Caching strategies
- Design principles for microservices
- Event-driven architectures
- Horizontal scaling and vertical scaling
- How to appropriately use edge accelerators
- How to migrate applications into containers
- Load balancing concepts (for example, App Load Balancer)
- Multi-tier architectures
- Queuing and messaging concepts
- Serverless technologies and patterns
- Storage types with associated characteristics
- The orchestration of containers
- When to use read replicas
- Workflow orchestration (for example, AWS Step Functions)



Free Advice: +91 9600579474

For Enquiry: +91 8680961847

5. Design Highly Available and/or Fault-Tolerant Architectures

- AWS global infrastructure
- AWS managed services with appropriate use cases
- Basic networking concepts (for example, route tables)
- Disaster recovery (DR) strategies
- Distributed design patterns
- Failover strategies
- Immutable infrastructure
- Load balancing concepts (for example, App Load Balancer)
- Proxy concepts (for example, Amazon RDS Proxy)
- Service quotas and throttling
- Storage options and characteristics
- Workload visibility (for example, AWS X-Ray)

Zetlan Technologies Design High-Performing Architectures

6. Determine high-performing and/or scalable storage solutions

- Hybrid storage solutions to meet business requirements
- Storage services with appropriate use cases
- Amazon Elastic File System [Amazon EFS], Amazon EBS
- Storage types with associated characteristics

For Enquiry: +91 8680961847

7. Design high-performing and elastic compute solutions

- AWS compute services with appropriate use cases
- Distributed computing concepts supported
- Queuing and messaging concepts
- Scalability capabilities with appropriate use cases
- Serverless technologies and patterns
- The orchestration of containers

8. Determine high-performing database solutions

- AWS global infrastructure
- Caching strategies and services
- Data access patterns
- Database capacity planning
- Database connections and proxies
- Database engines with appropriate use cases
- Database replication (for example, read replicas)
- Database types and services

For Enquiry: +91 8680961847

9. High-performing and/or scalable network architectures

- Edge networking services with appropriate use cases
- How to design network architecture
- Load balancing concepts
- Network connection options



10. High-performing data ingestion and transformation solutions

- Data analytics and visualization services
- Data ingestion patterns (for example, frequency)
- Data transfer services with appropriate use cases
- Data transformation services with appropriate use cases
- Secure access to ingestion access points
- Sizes and speeds needed to meet business requirements

Zetlan Technologies

Streaming data services with appropriate use cases

Design Cost-Optimized Architectures

11. Design cost-optimized storage solutions

- Access options (An S3 bucket with Requester Pays object)
- AWS cost management service features
- AWS cost management tools with appropriate use cases
- AWS storage services with appropriate use cases
- Backup strategies

For Enquiry: +91 8680961847

12. Design cost-optimized compute solutions

- AWS cost management service features
- AWS cost management tools with appropriate use cases
- AWS global infrastructure
- AWS purchasing options
- Distributed compute strategies
- Hybrid compute options
- Instance types, families, and sizes
- Optimization of compute utilization
- Scaling strategies (for example, auto scaling, hibernation)

13. Design cost-optimized database solutions

- AWS cost management service features
- AWS cost management tools with appropriate use cases
- Caching strategies
- Data retention policies
- Database capacity planning (for example, capacity units)
- Database connections and proxies
- Database engines with appropriate use cases
- Database replication (for example, read replicas)
- Database types and services

For Enquiry: +91 8680961847

14. Design cost-optimized network architectures

- AWS cost management service features
- AWS cost management tools with appropriate use cases
- Load balancing concepts (for example, App Load Balancer)
- NAT gateways (for eg, NAT instance costs compared)
- Network connectivity (for example, private lines, etc.,)
- Network routing, topology, and peering
- Network services with appropriate use cases (for eg, DNS)

Zetlan Technologies













LEARN REMOTELY!!

The efficiency of online learning in terms of time management, flexibility, and the ability to access resources anytime, anywhere can be compelling.



ZETLAN TECHNOLOGIES

www.zetlantech.com

For contact: +91 8680961847 +91 9600579474

