AWS ARCHITECT ASSOCIATE

Cloud Computing
- **Types of Cloud Computing**
  - Public
  - Private
  - Hybrid
- **Service Models**
  - Infrastructure as a Service (IaaS)
  - Platform as a Service (PaaS)
  - Software as a Service (SaaS)
- **Cloud Deployment**
  - CloudFormation
  - Elastic Beanstalk
  - OpsWorks
  - CloudTrail

Security and Compliance
- **AWS Security Best Practices**
  - Data confidentiality and integrity
  - Access control
  - Secure network architecture
  - Secure data storage
  - Disaster recovery
- **Services and Features**
  - AWS Identity and Access Management (IAM)
  - AWS Organizations
  - Amazon Inspector
  - Amazon Macie

AWS Global Infrastructure
- **AWS Regions and Availability Zones**
  - Physical infrastructure
  - Latency optimization
  - Regulatory compliance
- **Edge Locations**
  - Content delivery network (CDN)
  - Amazon CloudFront
    - Web acceleration
    - Deliver static and dynamic content

Networking and Content Delivery
- **Virtual Private Cloud (VPC)**
  - Customizable network
  - Security
  - Remote access
- **Elastic Load Balancing**
  - Distribute traffic
  - Fault tolerance
  - Scale applications
- **Amazon Route 53**
  - DNS service
  - Failover capabilities

Compute Services
- **Amazon Elastic Compute Cloud (EC2)**
  - Virtual servers
  - Scalability and elasticity
- **AWS Elastic Beanstalk**
  - Automated web application deployment
- **Amazon Lambda**
  - Serverless computing
  - Event-driven computing
  - Pay-per-use model

Databases
- **Amazon Relational Database Service (RDS)**
  - Managed database service
  - Automated backups
  - Scalability
- **Amazon DynamoDB**
  - NoSQL database service
  - Fully managed
  - High performance
- **Amazon ElastiCache**
  - In-memory caching
  - Speed up access to data
  - Memcached or Redis engines