Overview of AWS Services

Amazon Web Services (AWS) offers a comprehensive suite of cloud services that enable businesses to scale, manage, and run their operations efficiently. Below is an overview of key AWS services:

1. Compute Services

  - Amazon EC2 (Elastic Compute Cloud): Provides scalable virtual servers to run applications.

  - AWS Lambda: Serverless computing that automatically runs code in response to events.

  - Amazon Elastic Beanstalk: Simplified app deployment and scaling of web apps.

2. Storage Services

  - Amazon S3 (Simple Storage Service): Scalable object storage for any amount of data.

  - Amazon EBS (Elastic Block Store): Persistent block storage for use with EC2 instances.

  - Amazon Glacier: Long-term archival storage at very low costs.

3. Database Services

  - Amazon RDS (Relational Database Service): Managed databases for MySQL, PostgreSQL, Oracle, and SQL Server.

  - Amazon DynamoDB: A fully managed NoSQL database.

  - Amazon Aurora: A highly performant, managed relational database.

4. Networking Services

  - Amazon VPC (Virtual Private Cloud): Isolated cloud resources in a virtual network.

  - Amazon Route 53: Scalable domain name system (DNS) service.

  - AWS Direct Connect: Dedicated network connections from on-premises to AWS.

5. Security and Identity

  - AWS IAM (Identity and Access Management): Control access to AWS resources.

  - Amazon GuardDuty: Threat detection and continuous security monitoring.

  - AWS Shield: DDoS protection service for web applications.

6. Analytics

  - Amazon Redshift: A fast, scalable data warehouse for big data analytics.

  - Amazon Kinesis: Real-time data streaming and analytics.

  - AWS Glue: Managed ETL service for preparing and transforming data.

7. Machine Learning

  - Amazon SageMaker: Fully managed service for building, training, and deploying ML models.

  - AWS Deep Learning AMIs: Preconfigured environments for machine learning and deep learning.

  - Amazon Comprehend: Natural language processing (NLP) service.

8. Developer Tools

  - AWS CodeBuild: Continuous integration service to compile source code.

  - AWS CodePipeline: Continuous delivery service to automate release pipelines.

  - AWS CodeDeploy: Automated deployment of code to any instance.

9. Management and Monitoring

  - Amazon CloudWatch: Monitoring and observability service for AWS resources.

  - AWS CloudTrail: Auditing of AWS API calls and changes.

  - AWS Config: Tracks configuration changes across your AWS resources.

10. Migration and Transfer

  - AWS Migration Hub: Track progress of application migrations across AWS services.

- AWS Snowball: Physical devices to transfer large datasets into AWS.

11. Containers and Microservices

  - Amazon ECS (Elastic Container Service): Container orchestration for Docker containers.

  - Amazon EKS (Elastic Kubernetes Service): Managed Kubernetes service for running Kubernetes applications.

  - AWS Fargate: Serverless compute engine for containers.