Getting Started With AWS



What is AWS?

AWS (Amazon Web Services) is a comprehensive, evolving cloud computing platform provided by Amazon that includes a mixture of infrastructure as a service (laaS), platform as a service (PaaS) and packaged software as a service (SaaS) offerings. AWS services can offer an organization tools such as compute power, database storage and content delivery services.

Why to choose AWS?

- 1-Easy to use 2-Flexible 3-Cost-Effective
- 3-0031-LITECTIVE
- 4-Reliable
- 5-Scalable and high-performance
- 6-Secure

AWS Compute Service

- **1-AWS EC2-**Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides secure, resizable compute capacity in the cloud. It is designed to make webscale cloud computing easier for developers. Amazon EC2's simple web service interface allows you to obtain and configure capacity with minimal friction. It provides you with complete control of your computing resources and lets you run on Amazon's proven computing environment.
- **2-Amazon Relational Database Service (RDS)-**Amazon Relational Database Service (Amazon RDS) makes it easy to set up, operate, and scale a relational database in the cloud. It provides cost-efficient and resizable capacity while automating time-consuming administration tasks such as hardware provisioning, database setup, patching and backups. It frees you to focus on your applications so you can give them the fast performance, high availability, security and compatibility they need.
- **3-AWS Redshift-**AWS Redshift is a data warehousing solution from Amazon Web Services. Redshift shines in its ability to handle huge volumes of data—capable of processing structured and unstructured data in the range of exabytes (1018 bytes). However, the service can also be used for large-scale data migrations.
- **4-AWS DynamoDB-**Amazon DynamoDB is a fully managed, serverless, key-value NoSQL database designed to run high-performance applications at any scale. DynamoDB offers built-in security, continuous backups, automated multi-region replication, in-memory caching, and data export tools.

AWS Serverless Service

- **1-AWS Lambda-**AWS Lambda is a serverless, event-driven compute service that lets you run code for virtually any type of application or backend service without provisioning or managing servers.
- **2-Amazon API Gateway-**Amazon API Gateway is a fully managed service that makes it easy for developers to create, publish, maintain, monitor, and secure APIs at any scale. APIs act as the "front door" for applications to access data, business logic, or functionality from your backend services.
- **3-AWS S3-**Amazon Simple Storage Service (Amazon S3) is an object storage service offering industry-leading scalability, data availability, security, and performance. Customers of all sizes and industries can store and protect any amount of data for virtually any use case, such as data lakes, cloud-native applications, and mobile apps.

AWS Messaging Service

- **1-AWS SNS-**Amazon Simple Notification Service (Amazon SNS) is a fully managed messaging service for both application-to-application (A2A) and application-to-person (A2P) communication. The A2A pub/sub functionality provides topics for high-throughput, push-based, many-to-many messaging between distributed systems, microservices, and event-driven serverless applications.
- **2-AWS SQS-**Amazon Simple Queue Service (SQS) is a fully managed message queuing service that enables you to decouple and scale microservices, distributed systems, and serverless applications. SQS eliminates the complexity and overhead associated with managing and operating message-oriented middleware, and empowers developers to focus on differentiating work.
- **3-AWS Cloudwatch-**Amazon CloudWatch is a monitoring and observability service built for DevOps engineers, developers, site reliability engineers (SREs), IT managers, and product owners. CloudWatch provides you with data and actionable insights to monitor your applications, respond to system-wide performance changes, and optimize resource utilization. CloudWatch collects monitoring and operational data in the form of logs, metrics, and events.

AWS Analytics Service

- **1-AWS EMR(Elastic MapReduce)-**Amazon EMR is a cloud big data platform for running large-scale distributed data processing jobs, interactive SQL queries, and machine learning (ML) applications using open-source analytics frameworks such as Apache Spark, Apache Hive, and Presto.
- **2-AWS Glue-**AWS Glue is a serverless data integration service that makes it easy to discover, prepare, and combine data for analytics, machine learning, and application development. AWS Glue provides all the capabilities needed for data integration so that you can start analyzing your data and putting it to use in minutes instead of months.
- **3-AWS QuickSight-**Amazon QuickSight is a cloud-scale business intelligence (BI) service that you can use to deliver easy-to-understand insights to the people who you work with, wherever they are. Amazon QuickSight connects to your data in the cloud and combines data from many different sources.

AWS Access, Network, Security Service

- **1-AWS VPC-**Amazon Virtual Private Cloud (Amazon VPC) gives you full control over your virtual networking environment, including resource placement, connectivity, and security.
- **2-AWS IAM-**AWS Identity and Access Management (IAM) is a web service for securely controlling access to AWS resources. It enables you to create and control services for user authentication or limit access to a certain set of people who use your AWS resources.
- **3-AWS Secret Manager**-AWS Secrets Manager helps you protect secrets needed to access your applications, services, and IT resources. The service enables you to easily rotate, manage, and retrieve database credentials, API keys, and other secrets throughout their lifecycle.

Notion Link-

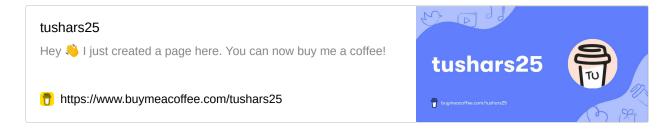
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Reference

https://docs.aws.amazon.com/

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