Data Types

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Rudy touched on many different data types and storage solutions.

Amazon Simple Storage Service (Amazon S3)

Amazon Simple Storage Service (Amazon S3) is an object storage service that offers industry-leading scalability, data availability, security, and performance. This means customers of all sizes and industries can use it to store and protect any amount of data for a range of use cases, such as websites, mobile applications, backup and restore, archive, enterprise applications, IoT devices, and big data analytics. Amazon S3 provides easy-to-use management features so you can organize your data and configure finely-tuned access controls to meet your specific business, organizational, and compliance requirements. More information on Amazon S3 is available at: https://aws.amazon.com/s3/

Amazon S3 Glacier

Amazon S3 Glacier is a secure, durable, and extremely low-cost cloud storage service for data archiving and long-term backup. It is designed to deliver 99.999999999% durability, and provides comprehensive security and compliance capabilities that can help meet even the most stringent regulatory requirements. More information on Amazon S3 Glacier can be found at: https://aws.amazon.com/glacier/

Amazon Relational Database Service (Amazon 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.

Amazon RDS is available on several database instance types - optimized for memory, performance or I/O - and provides you with six familiar database engines to choose from, including Amazon Aurora, PostgreSQL, MySQL, MariaDB, Oracle Database, and SQL Server. You can use the AWS Database Migration Service to easily migrate or replicate your existing databases to Amazon RDS. More information on Amazon RDS can be found at: https://aws.amazon.com/rds/

Amazon DynamoDB

Amazon DynamoDB is a key-value and document database that delivers single-digit millisecond performance at any scale. It's a fully managed, multiregion, multimaster database with built-in security, backup and restore, and in-memory caching for internet-scale applications. DynamoDB can handle more than 10 trillion requests per day and can support peaks of more than 20 million requests per second. More information on Amazon DynamoDB can be found at: https://aws.amazon.com/dynamodb/

Amazon Timestream

Amazon Timestream is a fast, scalable, fully managed time series database service for IoT and operational applications that makes it easy to store and analyze trillions of events per day at 1/10th the cost of relational databases. Details on Amazon Timestream can be found at: https://aws.amazon.com/timestream/

Amazon Quantum Ledger Database (QLDB)

Amazon QLDB is a fully managed ledger database that provides a transparent, immutable, and cryptographically verifiable transaction log owned by a central trusted authority. Amazon QLDB tracks each and every application data change and maintains a complete and verifiable history of changes over time.

Amazon QLDB is a new class of database that eliminates the need to engage in the complex development effort of building your own ledger-like applications. With QLDB, your data's change history is immutable – it cannot be altered or deleted – and using cryptography, you can easily verify that there have been no unintended modifications to your application's data. Details about Amazon QLDB can be found at: https://aws.amazon.com/qldb/

Amazon Elastic Block Store

Amazon Elastic Block Store (EBS) is an easy to use, high performance block storage service designed for use with Amazon Elastic Compute Cloud (EC2) for both throughput and transaction intensive workloads at any scale. A broad range of workloads, such as relational and non-relational databases, enterprise applications, containerized applications, big data analytics engines, file systems, and media workflows are widely deployed on Amazon EBS. More information on Amazon EBS is available at: https://aws.amazon.com/ebs/

Amazon Elastic File System

Amazon Elastic File System (Amazon EFS) provides a simple, scalable, elastic file system for Linux-based workloads for use with AWS Cloud services and on-premises resources. Amazon EFS is well suited to support a broad spectrum of use cases from highly parallelized, scale-out workloads that require the highest possible throughput to single-threaded, latency-sensitive workloads. Use cases such as lift-and-shift enterprise applications, big data analytics, web serving and content management, application development and testing, media and entertainment workflows, database backups, and container storage. More information about Amazon EFS can be found at: https://aws.amazon.com/efs/

Amazon Redshift

Amazon Redshift extends data warehouse queries to your data lake, with no loading required. You can run analytic queries against petabytes of data stored locally in Redshift, and directly against exabytes of data stored in Amazon S3. It is simple to set up, automates most of your administrative tasks, and delivers fast performance at any scale. Information about Amazon Redshift is available at: https://aws.amazon.com/redshift/

Amazon Athena

Amazon Athena is an interactive query service that makes it easy to analyze data in Amazon S3 using standard SQL. Athena is serverless, so there is no infrastructure to manage, and you pay only for the queries that you run.

Athena is easy to use. Simply point to your data in Amazon S3, define the schema, and start querying using standard SQL. Most results are delivered within seconds. With Athena, there's no need for complex ETL jobs to prepare your data for analysis. This makes it easy for anyone with SQL skills to quickly analyze large-scale datasets. Details about Amazon Athena can be found at: https://aws.amazon.com/athena/

Data Transfer

AWS Snowball

Snowball is a petabyte-scale data transport solution that uses devices designed to be secure to transfer large amounts of data into and out of the AWS Cloud. Snowball devices use tamper-resistant enclosures, 256-bit encryption, and an industry-standard Trusted Platform Module (TPM) designed to ensure both security and full chain-of-custody for your data. More information about AWS Snowball can be found at: https://aws.amazon.com/snowball/

AWS Snowmobile

AWS Snowmobile is an Exabyte-scale data transfer service used to move extremely large amounts of data to AWS. You can transfer up to 100PB per Snowmobile, a 45-foot long ruggedized shipping container, pulled by a semi-trailer truck. Snowmobile makes it easy to move massive volumes of data to the cloud, including video libraries, image repositories, or even a complete data center migration. Transferring data with Snowmobile is more secure, fast and cost effective. Information about how to get started with AWS Snowmobile can be found at: https://aws.amazon.com/snowmobile/