Amazon DynamoDB

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What?
- Amazon DynamoDB is a fully managed, serverless, NoSQL database designed to support key-value and document data models.
- DynamoDB has a flexible schema, to easily adapt the tables as your business requirements change, without having to redefine the table schema as you would in relational databases.

Why?
- DynamoDB offers built-in security, continuous backups, automated multi-Region replication, in-memory caching, and data export tools.
- You can scale up or scale down your tables' throughput capacity without downtime or performance degradation

When?
- Build internet-scale applications supporting user-content metadata and caches that require high concurrency and connections for millions of users, and millions of requests per second.
- You want to support high-traffic, extreme-scaled events, encryption at rest with no operational overhead.

Where?
- DynamoDB is a regional service. All of your data is stored on SSDs and is automatically replicated across multiple Availability Zones in an AWS Region
- You can use global tables to keep DynamoDB tables in sync across AWS Regions.

Who?
- With DynamoDB, there are no servers to provision, patch, or manage, and no software to install, maintain, or operate. It automatically scales tables to adjust for capacity and maintains performance with zero administration.
- Availability and fault tolerance are built in and it also provides on-demand backup capability.

How?
- In DynamoDB, tables, items, and attributes are the core components. A table is a collection of items, and each item is a collection of attributes. An attribute is a fundamental data element, which does not need to be broken down further.
- It uses primary keys to uniquely identify each item in a table and secondary indexes to provide more querying flexibility.

How much?
- DynamoDB charges for reading, writing, and storing data in your DynamoDB tables, along with any optional features you choose to enable. DynamoDB has two capacity modes, which come with specific billing options for processing reads and writes on your tables: on-demand and provisioned.