What is DynamoDB?

Q: What is Amazon DynamoDB?

DynamoDB is a fast and flexible nonrelational database service for any scale. DynamoDB enables customers to offload the administrative burdens of operating and scaling distributed databases to AWS so that they don't have to worry about hardware provisioning, setup and configuration, throughput capacity planning, replication, software patching, or cluster scaling.

Show less

Q: What does DynamoDB manage on my behalf?

DynamoDB takes away one of the main stumbling blocks of scaling databases: the management of database software and the provisioning of the hardware needed to run it. You can deploy a nonrelational database in a matter of minutes. DynamoDB automatically scales throughput capacity to meet workload demands, and partitions and repartitions your data as your table size grows. Also, DynamoDB synchronously replicates data across three facilities in an AWS Region, giving you high availability and data durability.

Show less

Q: What is the consistency model of DynamoDB?

Getting started

Q: What kind of query functionality does DynamoDB support?

DynamoDB supports GET/PUT operations by using a user-defined primary key. The primary key is the only required attribute for items in a table. You specify the primary key when you create a table, and it uniquely identifies each item. DynamoDB also provides flexible querying by letting you query on nonprimary key attributes using global secondary indexes and local secondary indexes.

A primary key can be either a single-attribute partition key or a composite partition-sort key. A single-attribute partition key could be, for example, **UserID**. Such a single attribute partition key would allow you to quickly read and write data for an item associated with a given user ID.

DynamoDB indexes a composite partition-sort key as a partition key element and a sort key element. This multipart key maintains a hierarchy between the first and second element values. For example, a composite partition-sort key could be a combination of **UserID** (partition) and **Timestamp** (sort). Holding the partition key element constant, you can search across the sort key element to retrieve items. Such searching would allow you to use the Query API to, for example, retrieve all items for a single **UserID** across a range of time stamps.

Show less

Planning

Q: How am I charged for my use of DynamoDB?

Each DynamoDB table has provisioned read-throughput and write-throughput associated with it. You are billed by the hour for that throughput capacity if you exceed the free tier. Note that you are charged by the hour for the throughput capacity, whether or not you are sending requests to your table. If you would like to change your table's provisioned throughput capacity, you can do so using the AWS Management Console, the UpdateTable API, or the PutScalingPolicy API for auto scaling. Also, DynamoDB charges for data storage as well as the standard internet data transfer fees.

To learn more about DynamoDB pricing, see the DynamoDB pricing page.

Show less

Q: What is the maximum throughput I can provision for a single DynamoDB table?

DynamoDB is designed to scale without limits. However, if you want to exceed throughput rates of 10,000 write capacity units or 10,000 read capacity units for an individual table, you must first

How it works

Q: Data models and APIs

For more information about data models and APIs, see Amazon DynamoDB: How It Works.

Show less

Q: Scalability, availability, and durability

For information about scalability, availability, and durability, see Amazon DynamoDB Product Details.

Show less

Q: Auto scaling

For information about DynamoDB auto scaling, see Managing Throughput Capacity Automatically with DynamoDB Auto Scaling.

Show less

Have more questions?

Contact us

Amazon DynamoDB

- Overview
- Features
- Pricing
- Getting Started
- Migrations
- Resources
- FAQs

AWS in the News
Analyst Reports
Legal

Solutions

Websites & Website Hosting
Business Applications
Backup & Recovery
Disaster Recovery
Data Archive
DevOps
Serverless Computing
Big Data
High Performance Computing
Mobile Services
Digital Marketing
Game Development
Digital Media
Government & Education
Health
Financial Services
Windows on AWS
Retail
Power & Utilities
Oil & Gas
Automotive
Blockchain
Manufacturing

Amazon DynamoDB

Overview

Features

Pricing

Getting Started

Migrations

Resources

FAQs