DyanmoDB

Fully managed, highly available. NoSQL database. Scales to massive workload, distributed database. Millions of requests per second, trillions of row, 100s of TB of storage. Fast and consistent in performance. Integrated with IAM for security, authorization and administration.

DynamoDB is made of tables.

Each table has a primary key decided at the creation time. Each table can have infinite number of rows / items. Maximum size of a item is 400kb.

Data types supported are –

- Scalar types – String, Number, Binary, Boolean, Null
- Document Types – list, map
- Set types – string set, number set, binary set

Primary keys –

- Option 1 - Partition key only (HASH). Partition key must be unique for each item. Eg. User_id can be used as primary key for a user table
- Option 2 – if you want more information in the primary key, then we can use a partition key + sort key. The combination must be unique.

DynamoDB is mostly used when your data is hot and smaller.

DynamoDB Streams

To react to changes in real time to our DynamoDB table, we use DynamoDB streams. All the changes would end up in the stream. That means the changelog (insert, update, delete) would be go into the stream. The stream can then be read by AWS Lambda to react to changes in real time / create derivatives tables / insert into elastic search , etc.

The stream has only retention of only upto 24 hours . There are configurable batch sizes of upto 1000 rows , 6 MB.