

Capabilities in DynamoDB



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Time to Live



Time to Live also known as TTL

Allows us to define when an item will expire

Expiry time is stored as an attribute of the item

Expiry time is stored as Epoch time
(Seconds since 1st Jan 1970 UTC)



Time to Live



TTL is enabled on a per-table basis, by defining attribute name of TTL

The item will be removed by a background DynamoDB process

Removal is best-effort



Job Table



Query consuming a lot of RCUs:

- Get all open jobs within a Country

FilterExpression is being used

- Still consumes RCUs for filtered items

Getting slower as times goes on

- All jobs (open & closed) consume RCUs

Partition Key is limited to 10GB of data

- Maximum of 10GB of data for a country
- Expect 1GB of open jobs per country



Job Table

Table Key Schema and Attributes

Partition Key:	CountryId	String
Sort Key:	JobId	String
	JobTitle	String
	JobType	String
	JobShortSummary	String
	JobDescription	String
	ClosingTime	Number

Problem Query

Get all open jobs within a Country

Options

1. **New Sort Key of Closing Time**
 - New LSI for the table
2. **Leverage Time to Live**
 - Move Closed jobs to another table



TTL to Close Jobs

Delete Closed Jobs



GMJS.Job



DynamoDB Streams



Lambda

PUT



GMJS.ClosedJobs



Auto Scaling



Helps automate capacity management

Works for:

- Tables
- Global Secondary Indexes

Default is on



Auto Scaling



Auto Scaling is defined by the following parameters:

- Triggers (% utilization)
- Min & Max RCU / WCU boundaries

Auto Scaling is not immediate

- May take up to 10-15 mins to trigger
- Does not solve burst usage scenarios
- Solves sustained increases in usage





DAX

DAX, also known as DynamoDB Accelerator

Fully managed, in-memory cache

Reduces response times from milliseconds to microseconds

Designed as a write-through cache

API compatible with DynamoDB



DAX



Reduce RCU/WCUs on DynamoDB by leveraging DAX

Complexity around consistency model of DAX

- Before using, it is worth understanding
 - <https://goo.gl/hEuHnU>
- Changes the consistency model for your application

