

Introduction to Amazon DynamoDB

Welcome to the Amazon DynamoDB lab! In this lab, we'll explore DynamoDB, a fast and flexible database that's perfect for many types of applications, like mobile apps, websites, and games. We'll create a table to store music library data, add some songs, search for specific songs, and then delete the table. Let's get started and learn how to use DynamoDB!

1: Create a new table

The screenshot shows the Amazon DynamoDB console interface. The top navigation bar includes the AWS logo, a search bar, and account information (United States (Oregon), Account ID: 7316-3561-5008). The left sidebar lists navigation options: Dashboard, Tables, Explore items, PartiQL editor, Backups, Exports to S3, Imports from S3, Integrations, Reserved capacity, and Settings. Under the 'DAX' section, there are links for Clusters, Subnet groups, Parameter groups, and Events.

The main content area displays the 'Amazon DynamoDB' header with the tagline 'A fast and flexible NoSQL database service for any scale'. It includes a 'Get started' section with a 'Create table' button and a 'Pricing' section. Below this, there is a 'How it works' section with a video thumbnail.

The 'Create table' wizard is active, showing the 'Table details' section. It includes a 'Table name' field with the value 'Mokgadi_Selepe_Music'. The 'Partition key' is set to 'Artist' with a 'String' data type. The 'Sort key - optional' is set to 'Song' with a 'String' data type. The 'Table settings' section at the bottom has two options: 'Default settings' (selected) and 'Customize settings'.

Create table

Table details [info](#)

DynamoDB is a schemaless database that requires only a table name and a primary key when you create the table.

Table name

This will be used to identify your table.

Mokgadi_Selepe_Music

Between 3 and 255 characters, containing only letters, numbers, underscores (_), hyphens (-), and periods (.).

Partition key

The partition key is part of the table's primary key. It is a hash value that is used to retrieve items from your table and allocate data across hosts for scalability and availability.

Artist String

1 to 255 characters and case sensitive.

Sort key - optional

You can use a sort key as the second part of a table's primary key. The sort key allows you to sort or search among all items sharing the same partition key.

Song String

1 to 255 characters and case sensitive.

Table settings

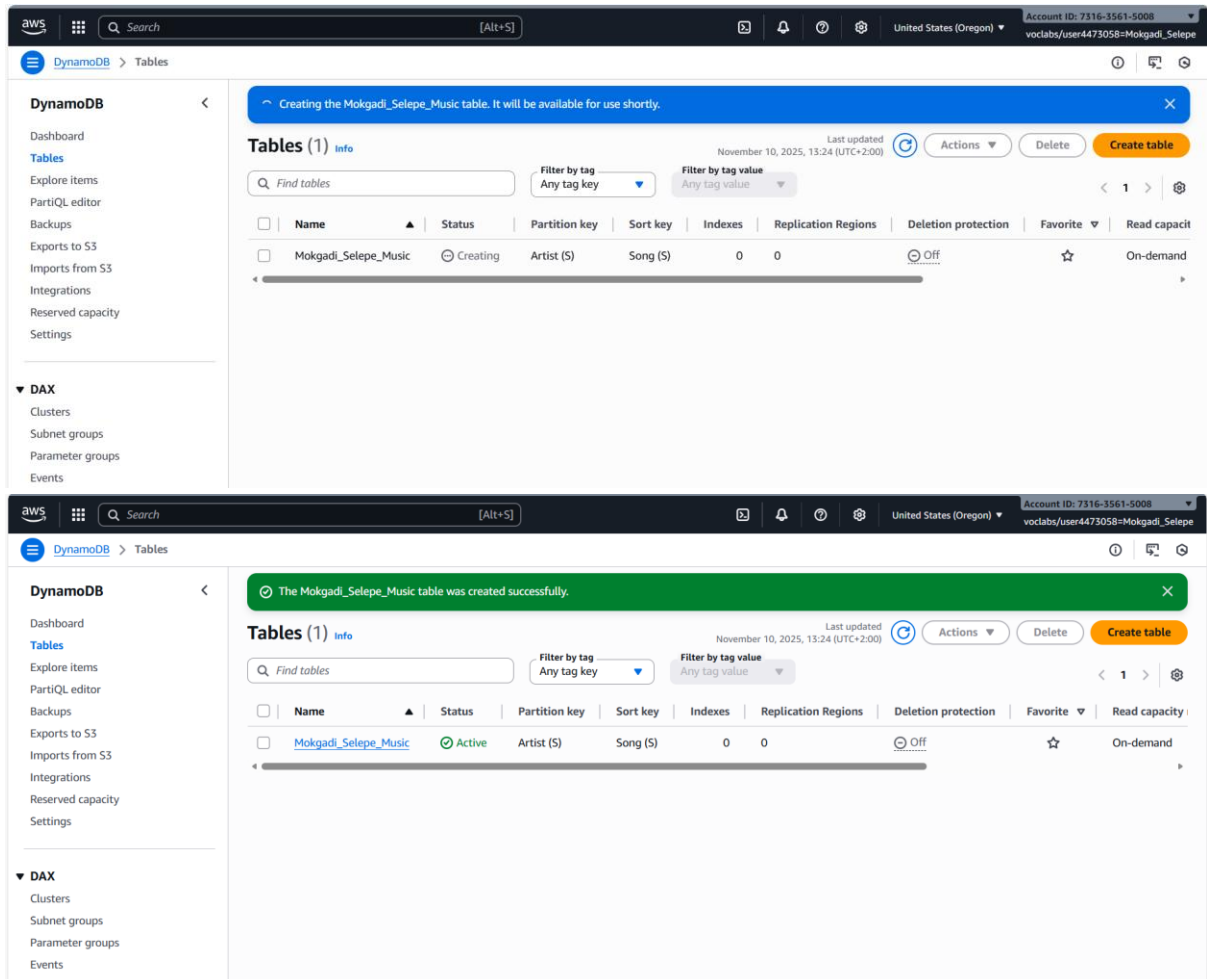
☒ Default settings

The fastest way to create your table. You can modify most of these settings after your table has been created. To

☐ Customize settings

Use these advanced features to make DynamoDB work better for your needs.

MOKGADI SELEPE



I've created a new table in DynamoDB!

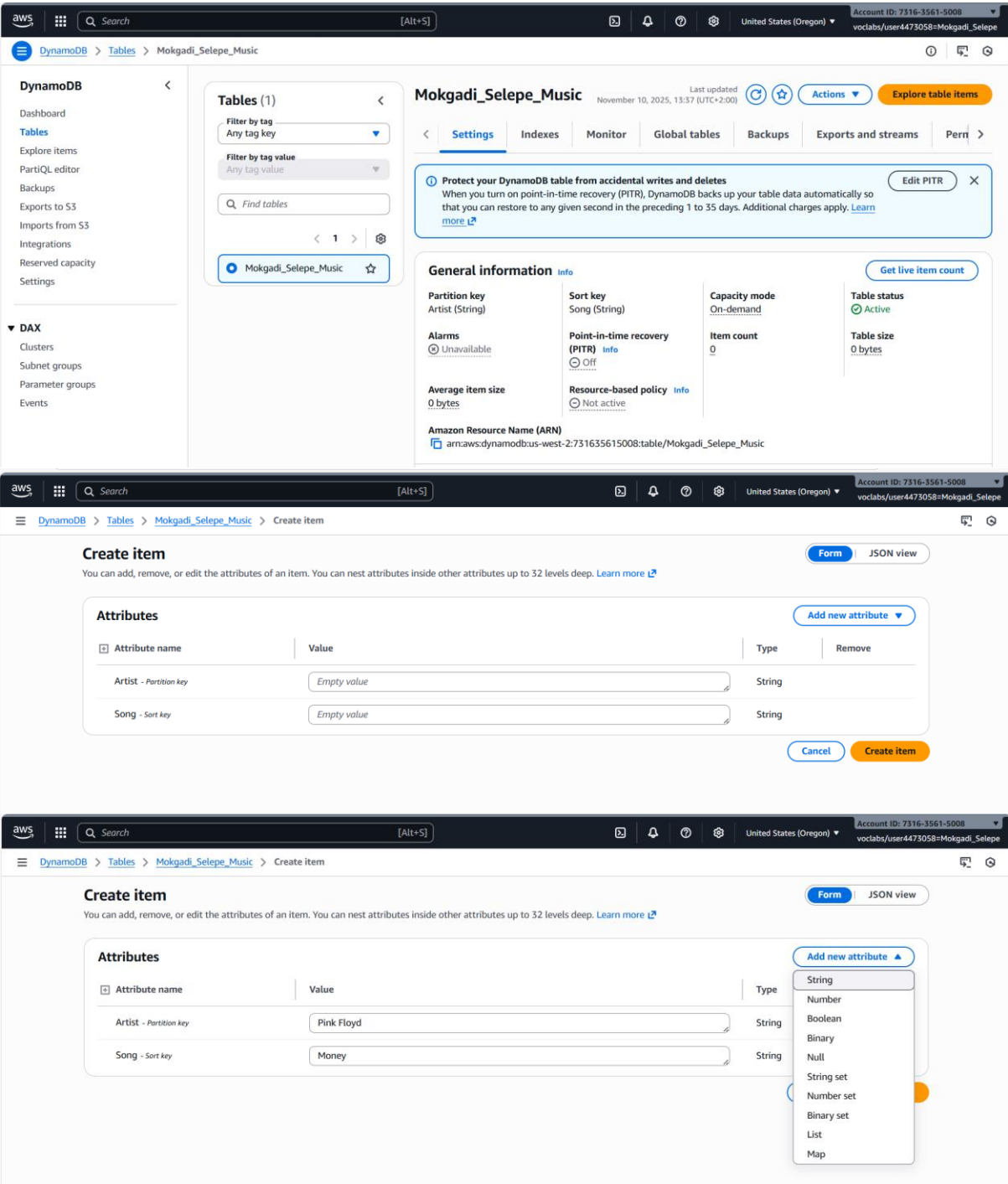
Here's what I did:

- I went to the AWS Management Console and opened DynamoDB.
- I clicked "Create table" and named it "Music".
- I set the partition key (like a unique ID) to "Artist" and the sort key to "Song".
- I used the default settings and clicked "Create table".
- My table is now being created, and I'll wait for it to become active.

Think of it like creating a music playlist:

- I made a new playlist called "Music".
- I decided to organize it by artist and song title.
- My playlist is now being set up, and I'll wait for it to be ready to use!

2: Add data



MOKGADI SELEPE

aws

Search

[Alt+S]

United States (Oregon)

Account ID: 7316-3561-5008
voclabs/user4473058=Mokgadi_Selepe

DynamoDB

Tables

Mokgadi_Selepe_Music

Create item

Create item

You can add, remove, or edit the attributes of an item. You can nest attributes inside other attributes up to 32 levels deep. [Learn more](#)

Form

JSON view

Attributes

Add new attribute

Attribute name	Value	Type	Remove
Artist - Partition key	Pink Floyd	String	
Song - Sort key	Money	String	
Album	The Dark Side of the Moon	String	Remove

Cancel

Create item

Create item

You can add, remove, or edit the attributes of an item. You can nest attributes inside other attributes up to 32 levels deep. [Learn more](#)

Form

JSON view

Attributes

Add new attribute

Attribute name	Value	Type	Remove
Artist - Partition key	Pink Floyd	String	
Song - Sort key	Money	String	
Album	The Dark Side of the Moon	String	
Attribute name	0	Number	

Cancel

Create item

Create item

You can add, remove, or edit the attributes of an item. You can nest attributes inside other attributes up to 32 levels deep. [Learn more](#)

Form

JSON view

Attributes

Add new attribute

Attribute name	Value	Type	Remove
Artist - Partition key	Pink Floyd	String	
Song - Sort key	Money	String	
Album	The Dark Side of the Moon	String	Remove
Year	1973	Number	Remove

Cancel

Create item

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The screenshot shows the AWS DynamoDB console interface. At the top, there's a header for the table 'Table: Mokgadi_Selege_Music - Items returned (2)' with a refresh icon, 'Actions' dropdown, and 'Create item' button. Below this, a scan started on November 10, 2025, 13:43:06 is noted. The table view shows columns: Artist (String), Song (String), Album, Genre, and Imagine. The first two rows are visible: John Lennon with Song 'Imagine' and Genre 'Soft rock', and Pink Floyd with Song 'Money' and Album 'The Dark Si...'. Below the table, the 'Create item' form is shown. It has tabs for 'Form' and 'JSON view'. The form includes a table of attributes with columns: Attribute name, Value, Type, and Remove. The attributes are: Artist - Partition key (Psy, String), Song - Sort key (Gangnam Style, String), Album (Psy 6 (Six Rules), Part 1, String, with a Remove button), Year (2011, Number, with a Remove button), and LengthSeconds (219, Number, with a Remove button). At the bottom of the form are 'Cancel' and 'Create item' buttons. Below the form, the table view is updated to 'Table: Mokgadi_Selege_Music - Items returned (3)'. It shows the same columns as before, but now includes a third row: Psy with Song 'Gangnam Style' and Album 'Psy 6 (Six R...'. The first two rows remain the same.

Artist (String)	Song (String)	Album	Genre	Imagine
John Lennon	Imagine		Soft rock	1971
Pink Floyd	Money	The Dark Si...		

Attribute name	Value	Type	Remove
Artist - Partition key	Psy	String	
Song - Sort key	Gangnam Style	String	
Album	Psy 6 (Six Rules), Part 1	String	Remove
Year	2011	Number	Remove
LengthSeconds	219	Number	Remove

Artist (String)	Song (String)	Album	Genre	Imagine
Psy	Gangnam Style	Psy 6 (Six R...		
John Lennon	Imagine		Soft rock	1971
Pink Floyd	Money	The Dark Si...		

I've added some music to my DynamoDB table!

Here's what I did:

- I opened my Music table and clicked "Create item" to add a new song.
- I entered the artist name "Pink Floyd" and song title "Money", which are the required fields.
- I added more info about the song, like the album title "The Dark Side of the Moon" and the release year "1973".
- I created two more songs, one by John Lennon and one by Psy, each with their own unique attributes.
- I noticed that each song can have different attributes, like "Genre" or "LengthSeconds", without needing to define them beforehand.

Think of it like adding songs to a digital music library:

- I added Pink Floyd's "Money" to my library, with details like album and release year.
- I added John Lennon's "Imagine" and Psy's "Gangnam Style", each with their own unique info.
- My library is flexible and can handle different types of data for each song!

3: Modify an existing item

The screenshot shows the AWS DynamoDB console interface. The top navigation bar includes the AWS logo, a search bar, and account information (United States (Oregon), Account ID: 7316-3561-5008, user: voclabs/user4473058=Mokgadi_Selege).

The main content area is divided into two sections. The top section, titled 'Tables (1/1) info', shows a list of tables. The table 'Mokgadi_Selege_Music' is highlighted, showing its status as 'Active', partition key as 'Artist (S)', sort key as 'Song (S)', and read capacity as 'On-demand'.

The bottom section, titled 'Explore items', shows the details for the 'Mokgadi_Selege_Music' table. It includes a 'Select table or index' dropdown set to 'Table - Mokgadi_Selege_Music' and a 'Select attribute projection' dropdown set to 'All attributes'. Below this, there is a 'Filters - optional' section with 'Run' and 'Reset' buttons.

A green status bar indicates 'Completed - Items returned: 1 - Items scanned: 1 - Efficiency: 100% - RCUs consumed: 2'. Below this, the 'Table: Mokgadi_Selege_Music - Items returned (1/3)' section shows a list of items. The first item is selected, showing details for 'Psy' with the song 'Gangnam Style' from the album 'Psy 6 (Six R...)'.

Artist (String)	Song (String)	Album	Genre	Imagine
<input checked="" type="checkbox"/> Psy	Gangnam Style	Psy 6 (Six R...		
<input type="checkbox"/> John Lennon	Imagine		Soft rock	1971
<input type="checkbox"/> Pink Floyd	Money	The Dark Si...		

MOKGADI SELEPE

Edit item

You can add, remove, or edit the attributes of an item. You can nest attributes inside other attributes up to 32 levels deep. [Learn more](#)

Attributes

Attribute name	Value	Type	Remove
Artist - Partition key	Psy	String	
Song - Sort key	Gangnam Style	String	
Album	Psy 6 (Six Rules), Part 1	String	Remove
LengthSeconds	219	Number	Remove
Year	2011	Number	Remove

[Cancel](#) [Save](#) [Save and close](#)

Edit item

You can add, remove, or edit the attributes of an item. You can nest attributes inside other attributes up to 32 levels deep. [Learn more](#)

Attributes

Attribute name	Value	Type	Remove
Artist - Partition key	Psy	String	
Song - Sort key	Gangnam Style	String	
Album	Psy 6 (Six Rules), Part 1	String	Remove
LengthSeconds	219	Number	Remove
Year	2012	Number	Remove

[Cancel](#) [Save](#) [Save and close](#)

Table: Mokgadi_Selepe_Music - Items returned (3)

Scan started on November 10, 2025, 13:43:06

	Artist (String)	Genre	Imagine	LengthSeconds	Year
<input type="checkbox"/>	Psy			219	2012
<input type="checkbox"/>	John Lennon	Soft rock	1971		
<input type="checkbox"/>	Pink Floyd				1973

I've fixed a mistake in my music library!

Here's what I did:

- I went back to my Music table and found the song by Psy.
- I noticed the release year was wrong, so I changed it from 2011 to 2012.
- I saved the changes, and now the info is up to date!

Think of it like updating a song's details in my music library - I corrected the mistake, and everything is now accurate!

4: Query the table

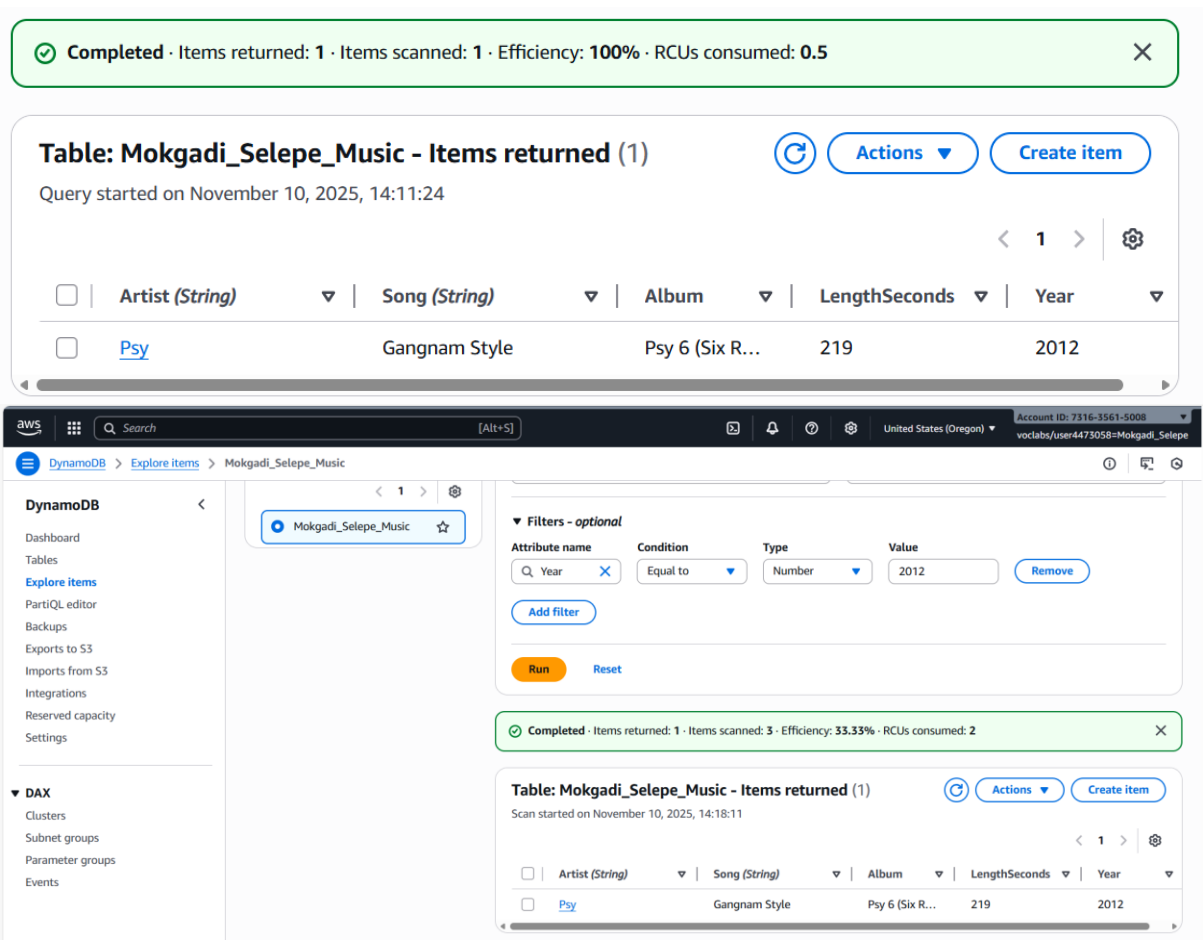
The image displays two screenshots of the AWS DynamoDB console interface, specifically the 'Mokgadi_Selege_Music' table configuration page. The top screenshot shows the 'Scan or query items' section with the 'Query' option selected. The 'Partition key: Artist' field is empty, and the 'Sort key: Song' field is also empty. The 'Filters - optional' section is collapsed. The bottom screenshot shows the same configuration page, but with the 'Partition key: Artist' field set to 'Psy' and the 'Sort key: Song' field set to 'Gangnam Style'. The 'Filters - optional' section remains collapsed. Both screenshots show the 'Run' and 'Reset' buttons at the bottom of the configuration section.

Top Screenshot Configuration:

- Tables (1):** Mokgadi_Selege_Music
- Scan or query items:** Query
- Select a table or index:** Table - Mokgadi_Selege_Music
- Select attribute projection:** All attributes
- Partition key:** Artist
- Sort key:** Song
- Filters - optional:** (Collapsed)

Bottom Screenshot Configuration:

- Tables (1):** Mokgadi_Selege_Music
- Scan or query items:** Query
- Select a table or index:** Table - Mokgadi_Selege_Music
- Select attribute projection:** All attributes
- Partition key:** Artist
- Sort key:** Song
- Filters - optional:** (Collapsed)



I've searched for songs in my music library!

Here's what I did:

- I used the "Query" feature to find a specific song by Psy called "Gangnam Style".
- I entered the artist name and song title, and it quickly found the song.
- I also used the "Scan" feature to find songs released in 1971.
- It searched through all the songs and found the one that matched.


Think of it like searching for songs in my music library:

- I searched for a specific song and found it fast.
- I also searched for songs from a specific year, and it found the one I was thinking of!

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Delete table

Delete table **Mokgadi_Selege_Music** in **United States (Oregon)** permanently? This action cannot be undone.



Proceeding with this action will delete the table and you won't be able to retrieve this data.

☒ Delete all CloudWatch alarms for **Mokgadi_Selege_Music**.

☐ Create an on-demand backup of **Mokgadi_Selege_Music** before deletion.

You can create an on-demand backup of your table for long-term retention and data archiving. You can then use this backup to restore your data to its exact state before table deletion. Additional charges apply for on-demand backup and restore. For more information see [Pricing](#).

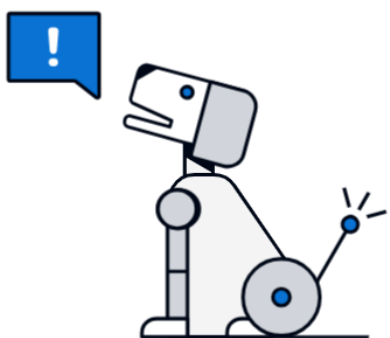
To avoid unintentional deletions, we ask you to provide additional confirmation.

To confirm this deletion, type "confirm".

confirm

Cancel

Delete



Delete table

Delete table **Mokgadi_Selege_Music** in **United States (Oregon)** permanently? This action cannot be undone.

Cancel

Delete

aws

Search

[Alt+S]

United States (Oregon)

Account ID: 7316-3561-5008

voclabs/user4473058-Mokgadi_Selege

DynamoDB > Tables

DynamoDB

Dashboards

Tables

Explore items

PartiQL editor

Backups

Exports to S3

Imports from S3

Integrations

Reserved capacity

Settings

DAX

Clusters

Subnet groups

Parameter groups

Events

The request to delete the "Mokgadi_Selege_Music" table has been submitted successfully.

November 10, 2025, 14:29 (UTC+2:00)

Actions

Delete

Create table

Tables (0)

Find tables

Filter by tag

Any tag key

Filter by tag value

Any tag value

Name

Status

Partition key

Sort key

Indexes

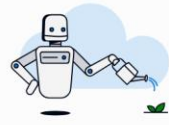
Replication Regions

Deletion protection

Favorite

Read capacity mode

Write



You have no tables in this account in this AWS Region.

Create table

I've deleted my music library!

Here's what I did:

- I went to the DynamoDB dashboard and selected the Music table.
- I chose to delete the table, which will remove all the songs and data I had stored.
- I confirmed that I wanted to delete it by typing "delete".

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- The table is now gone, and all my music data is deleted!

Think of it like throwing away my old music library:

- I decided I didn't need it anymore, so I deleted it.
- It's gone now, and I can't get it back!

Conclusion

I've wrapped up my DynamoDB experiment!

Here's what I accomplished:

- I created a table in DynamoDB to store music data.
- I added songs to the table, like Pink Floyd and John Lennon.
- I searched for specific songs and found them quickly.
- I even deleted the table when I was done with it.

Think of it like I built a music library from scratch, added songs, played them, and then tore it all down! It was a great learning experience, and I'm ready to do more with DynamoDB!
