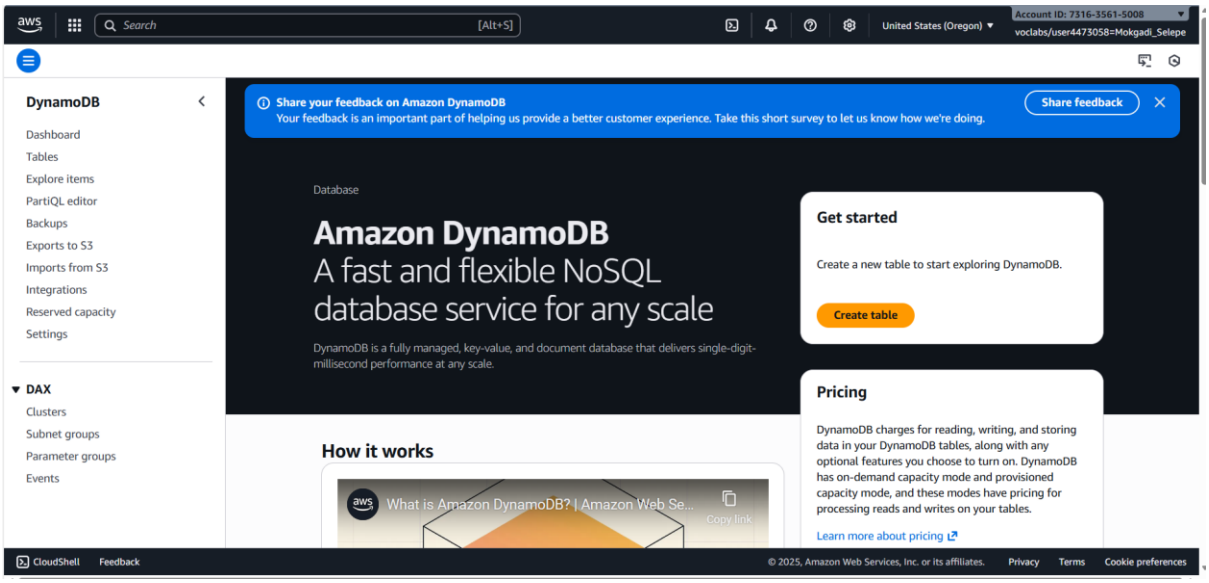
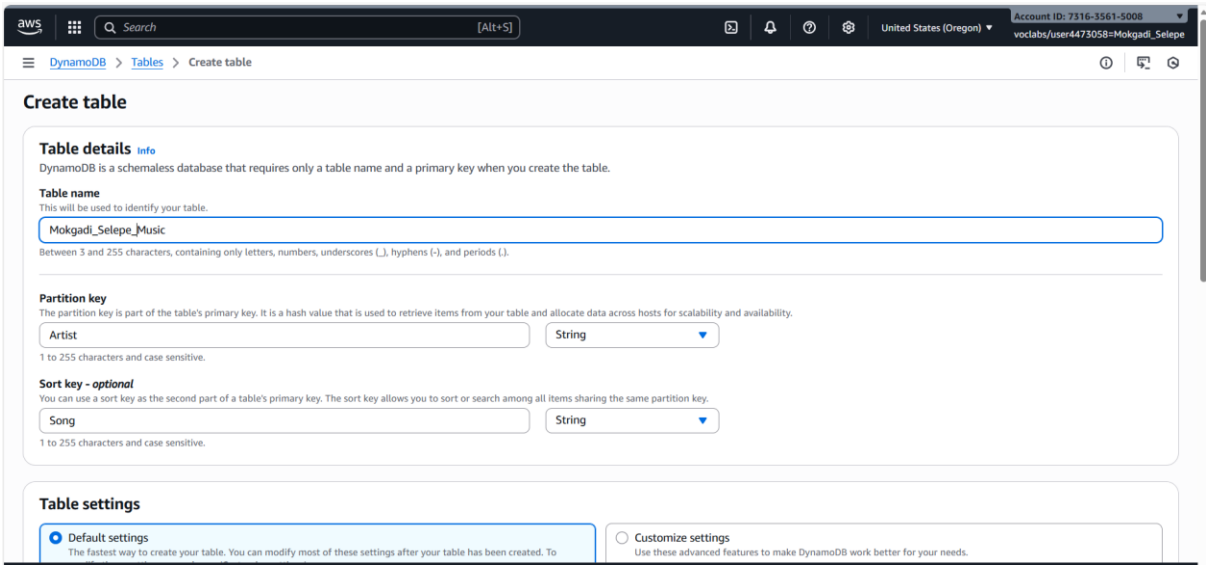
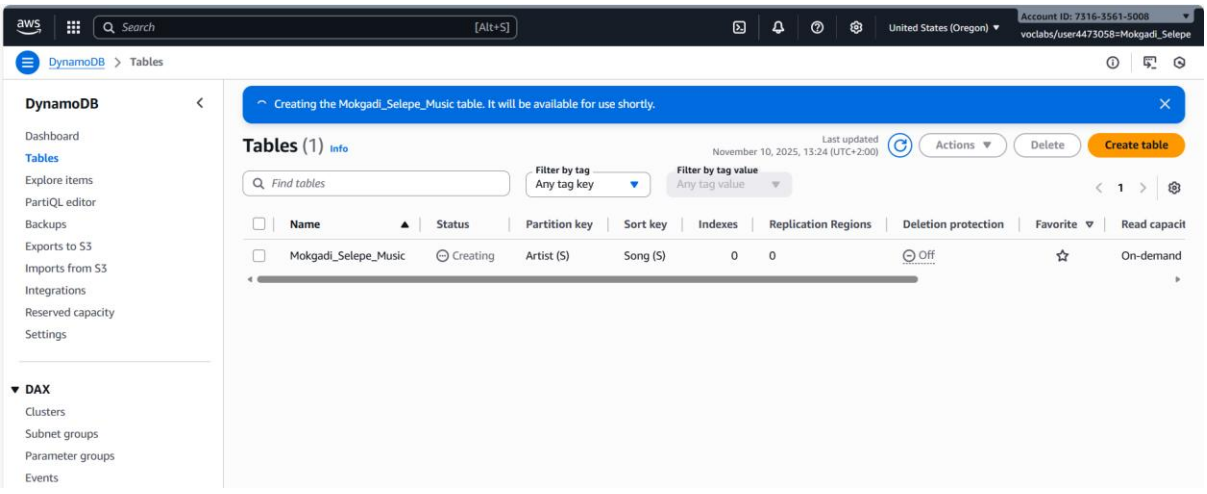
Introduction to Amazon DynamoDB

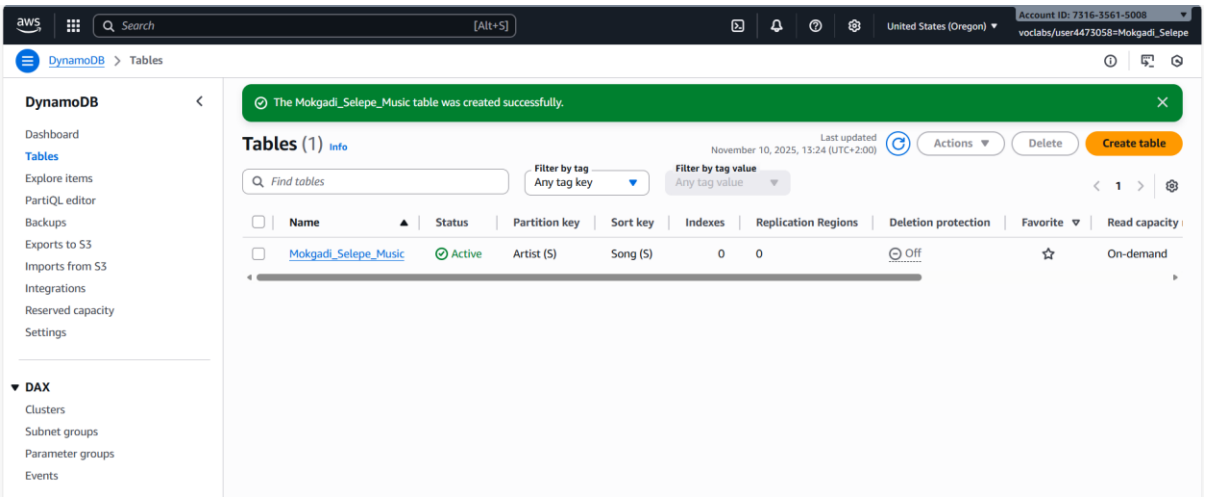
Welcome to the Amazon DynamoDB lab! In this lab, we'll explore DynamoDB, a fast and flexible database that's perfect for many types of applications, like mobile apps, websites, and games. We'll create a table to store music library data, add some songs, search for specific songs, and then delete the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

1: Create a new table









I've created a new table in DynamoDB!

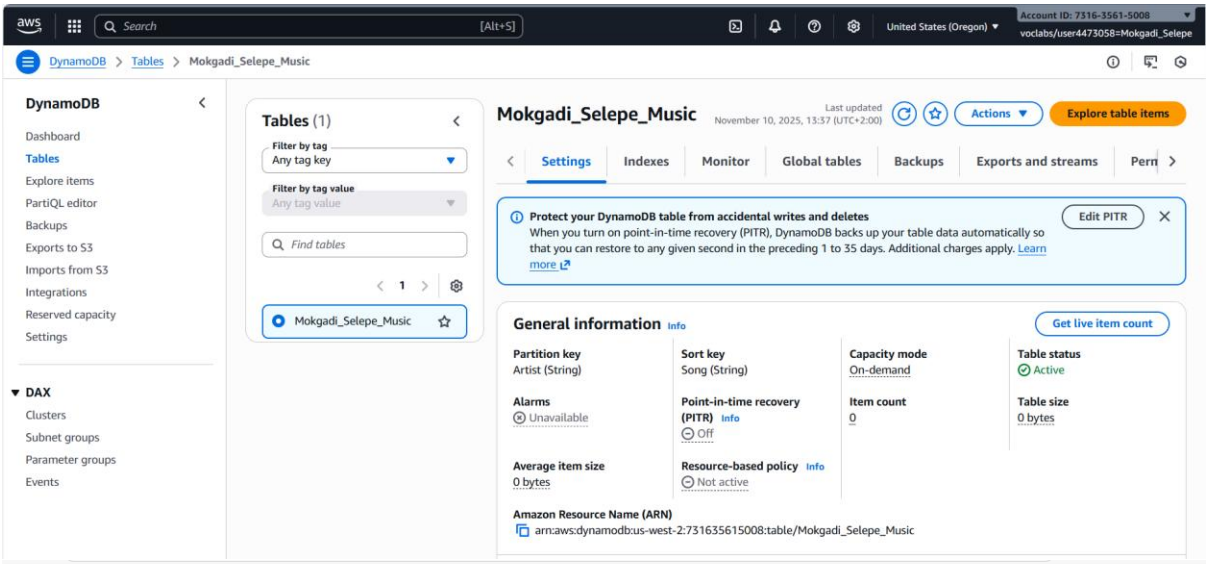
Here's what I did:

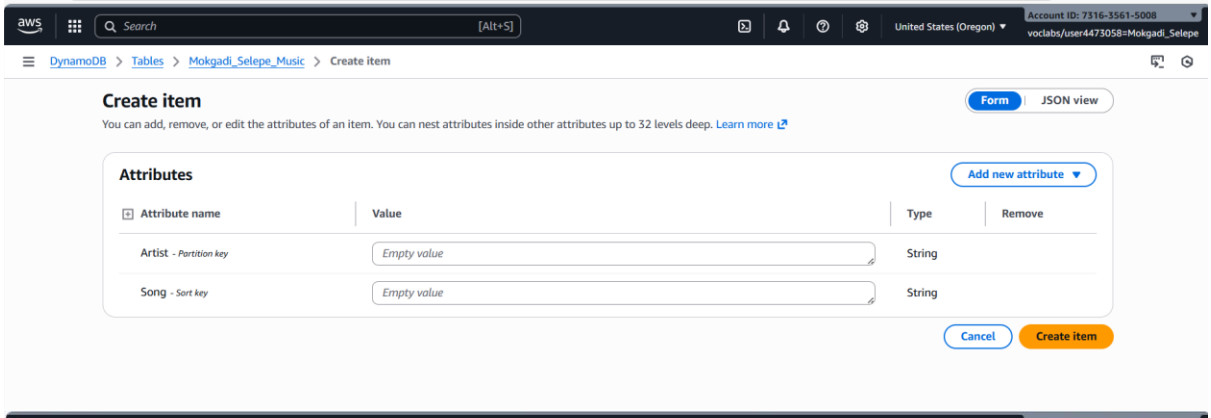
- I went to the AWS Management Console and opened DynamoDB.
- I clicked "Create table" and named it "Music".
- I set the partition key (like a unique ID) to "Artist" and the sort key to "Song".
- I used the default settings and clicked "Create table".
- My table is now being created, and I'll wait for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

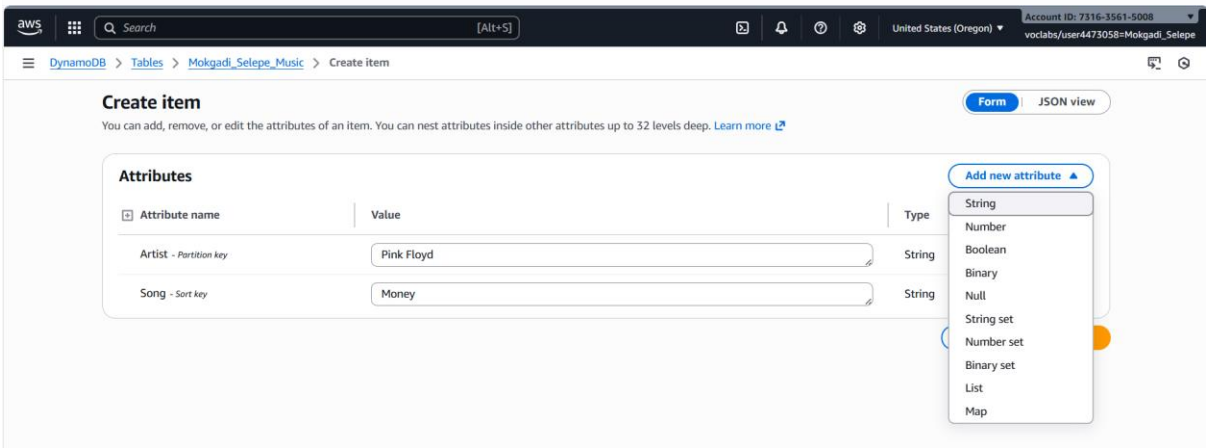
Think of it like creating a music playlist:

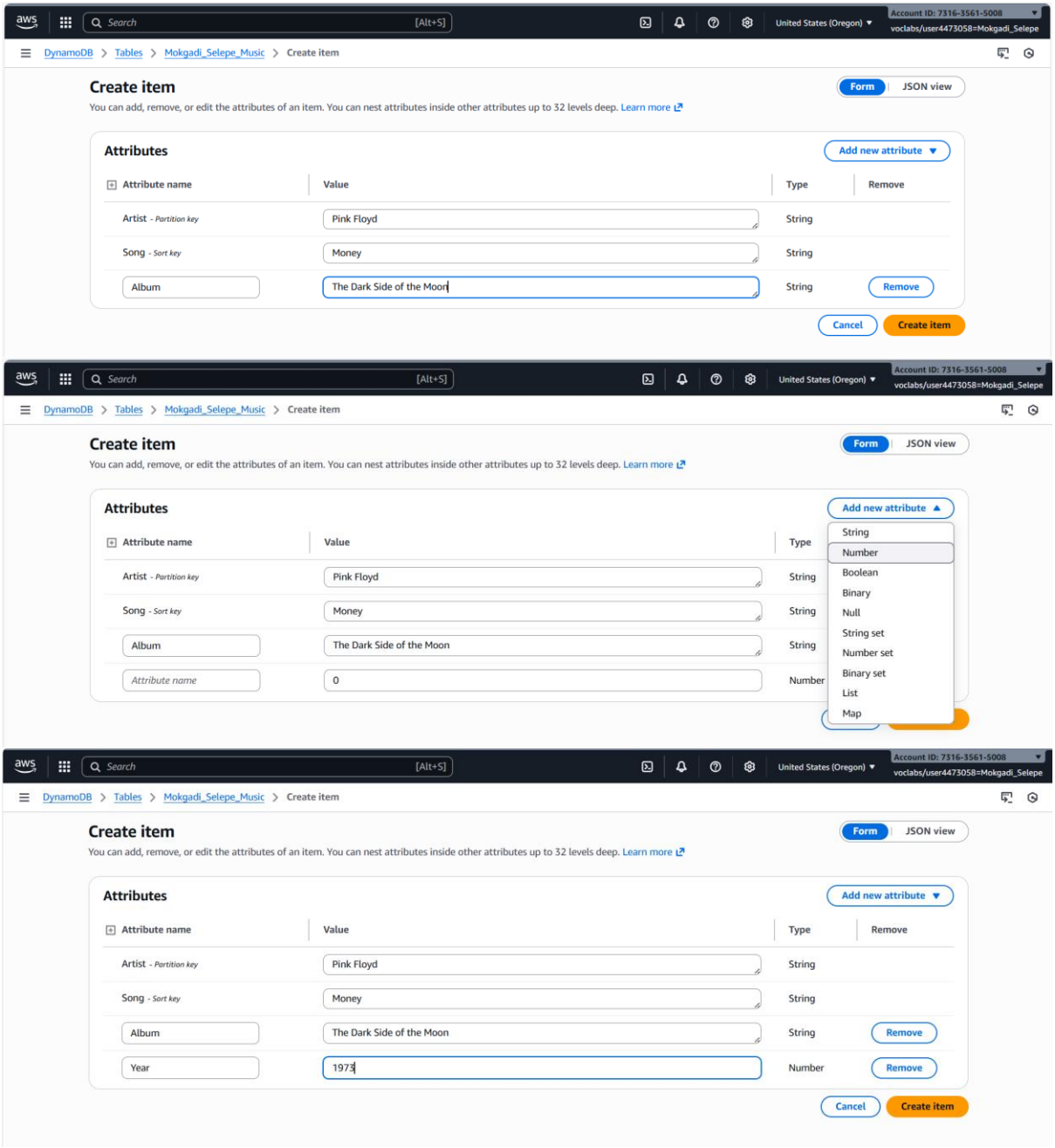
- I made a new playlist called "Music".
- I decided to organize it by artist and song title.
- My playlist is now being set up, and I'll wait for it to be ready to use!

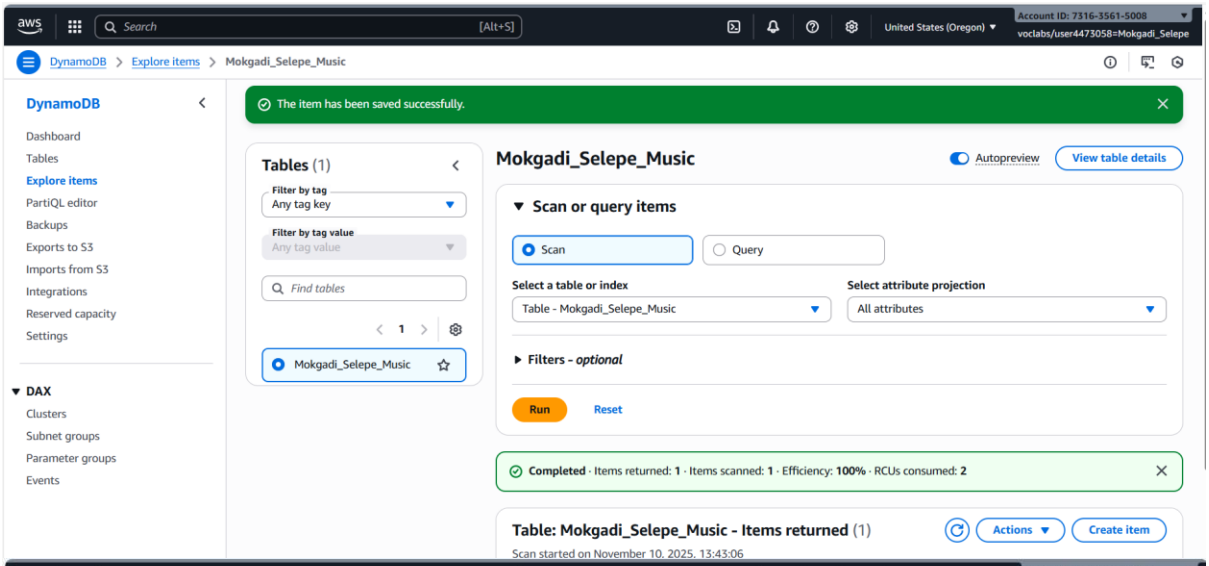
2: Add data

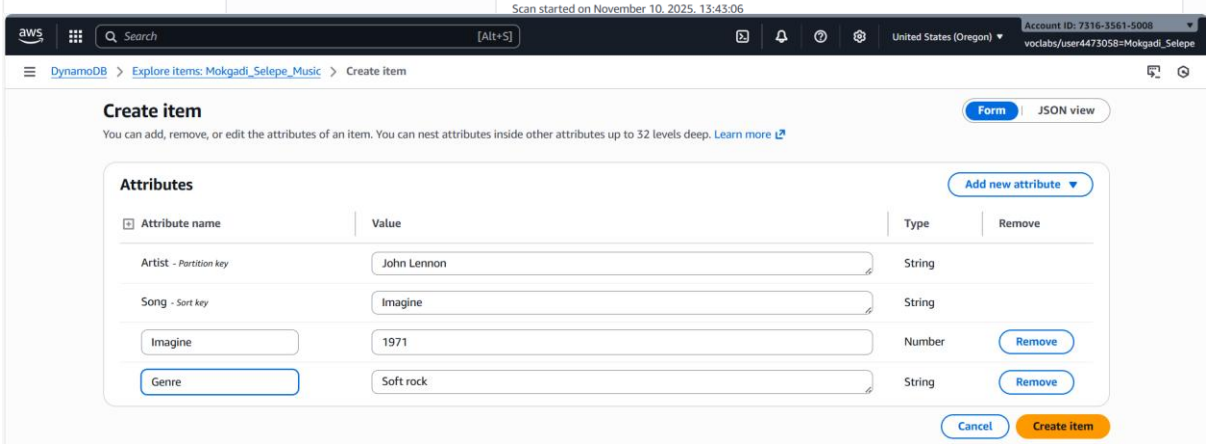

DynamoDB
Tables (1)
Mokgadi_Selepe_Music
Settings
Indexes
Monitor
Global tables
Backups
Exports and streams
General information
Partition key
Artist (String)
Sort key
Song (String)
Capacity mode
On-demand
Table status
Active
Amazon Resource Name (ARN)
arn:aws:dynamodb:us-west-2:731635615008:table/Mokgadi_Selepe_Music

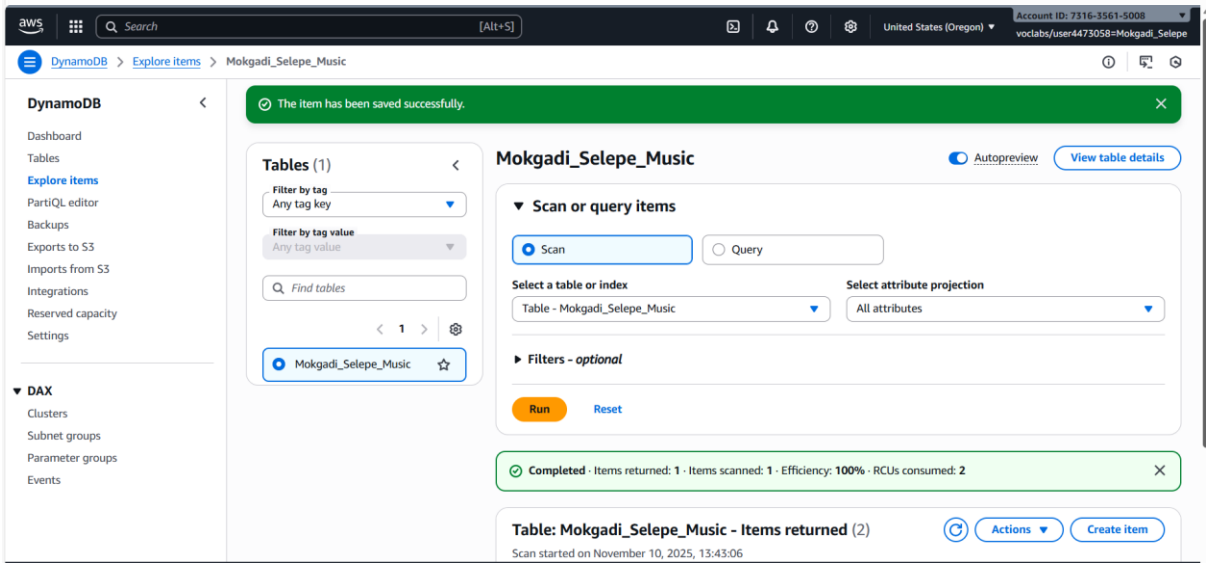

Create item
Form
JSON view
Attributes
Add new attribute
Attribute name
Value
Type
Remove
Artist - Partition key
Empty value
String
Song - Sort key
Empty value
String
Cancel
Create item

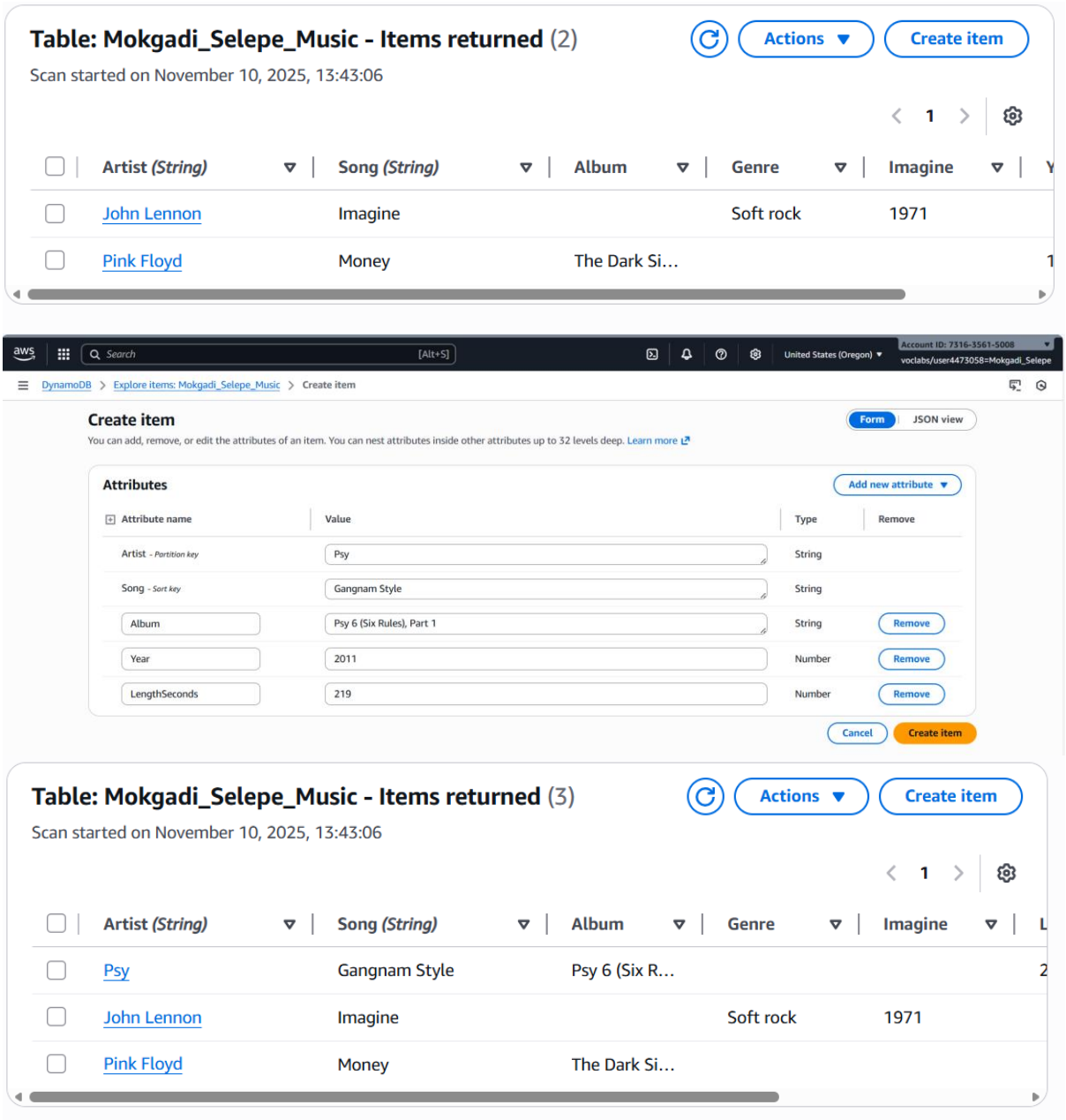

Create item
Form
JSON view
Attributes
Add new attribute
Attribute name
Value
Type
Artist - Partition key
Pink Floyd
String
Song - Sort key
Money
String
String
Number
Boolean
Binary
Null
String set
Number set
Binary set
List
Map


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
Add new attribute
String
Number
Boolean
Binary
Null
String set
Number set
Binary set
List
Map
Attribute name
0
Number
Year
1973


DynamoDB > Explore items > Mokgadi_Selepe_Music
The item has been saved successfully.
Tables (1)
Mokgadi_Selepe_Music
Autopreview
View table details
Scan or query items
Scan
Query
Select a table or index
Table - Mokgadi_Selepe_Music
Select attribute projection
All attributes
Filters - optional
Run
Reset
Completed · Items returned: 1 · Items scanned: 1 · Efficiency: 100% · RCUs consumed: 2
Table: Mokgadi_Selepe_Music - Items returned (1)
Actions
Create item
Scan started on November 10, 2025, 13:43:06


DynamoDB > Explore items: Mokgadi_Selepe_Music > Create item
Create item
Form
JSON view
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
Add new attribute
Attribute name
Value
Type
Remove
Artist - Partition key
John Lennon
String
Song - Sort key
Imagine
String
Imagine
1971
Number
Remove
Genre
Soft rock
String
Remove
Cancel
Create item


DynamoDB > Explore items > Mokgadi_Selepe_Music
The item has been saved successfully.
Tables (1)
Mokgadi_Selepe_Music
Autopreview
View table details
Scan or query items
Scan
Query
Select a table or index
Table - Mokgadi_Selepe_Music
Select attribute projection
All attributes
Filters - optional
Run
Reset
Completed · Items returned: 1 · Items scanned: 1 · Efficiency: 100% · RCUs consumed: 2
Table: Mokgadi_Selepe_Music - Items returned (2)
Actions
Create item
Scan started on November 10, 2025, 13:43:06



I've added some music to my DynamoDB table!

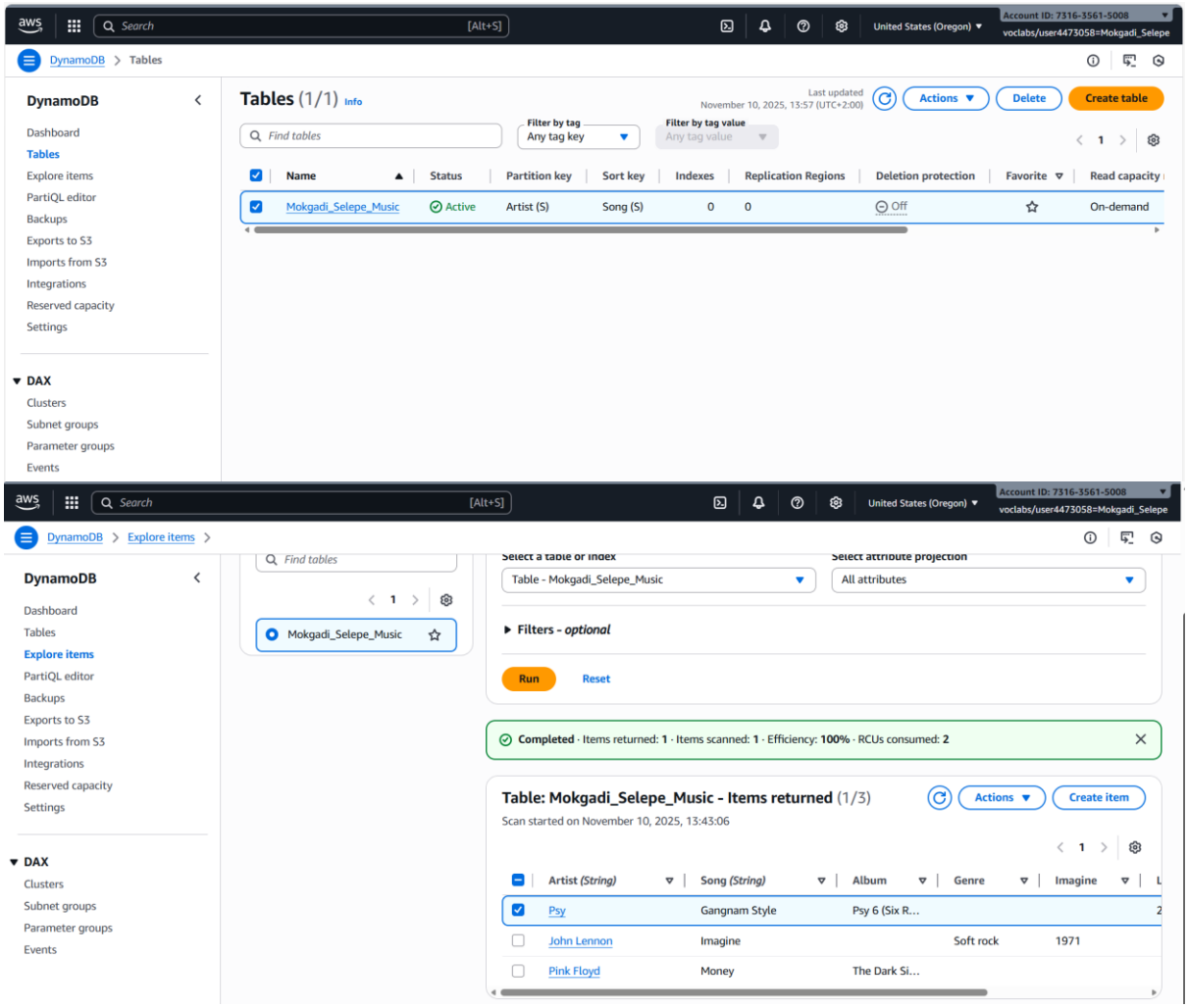
Here's what I did:

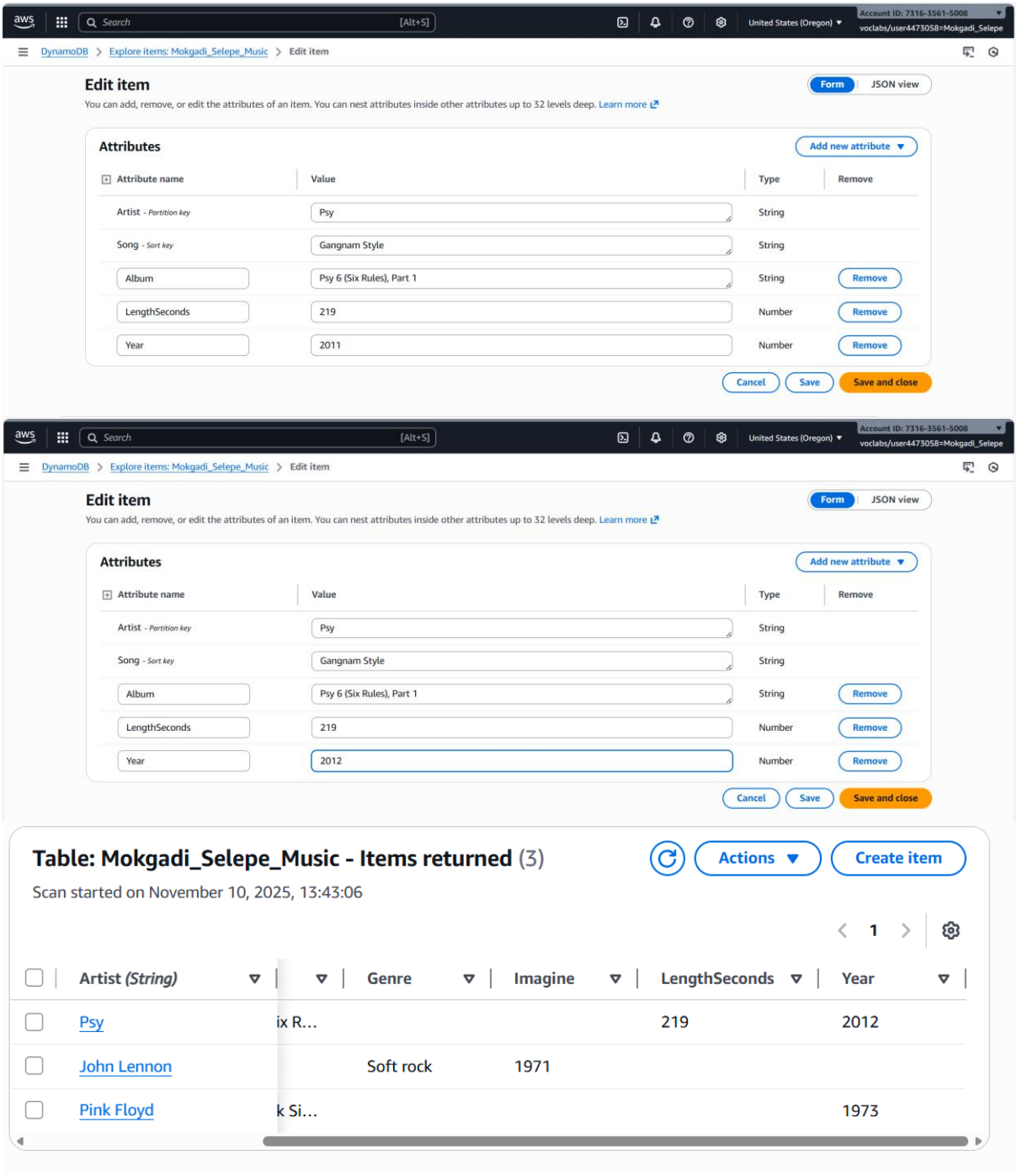
- I opened my Music table and clicked "Create item" to add a new song.
- I entered the artist name "Pink Floyd" and song title "Money", which are the required fields.
- I added more info about the song, like the album title "The Dark Side of the Moon" and the release year "1973".
- I created two more 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





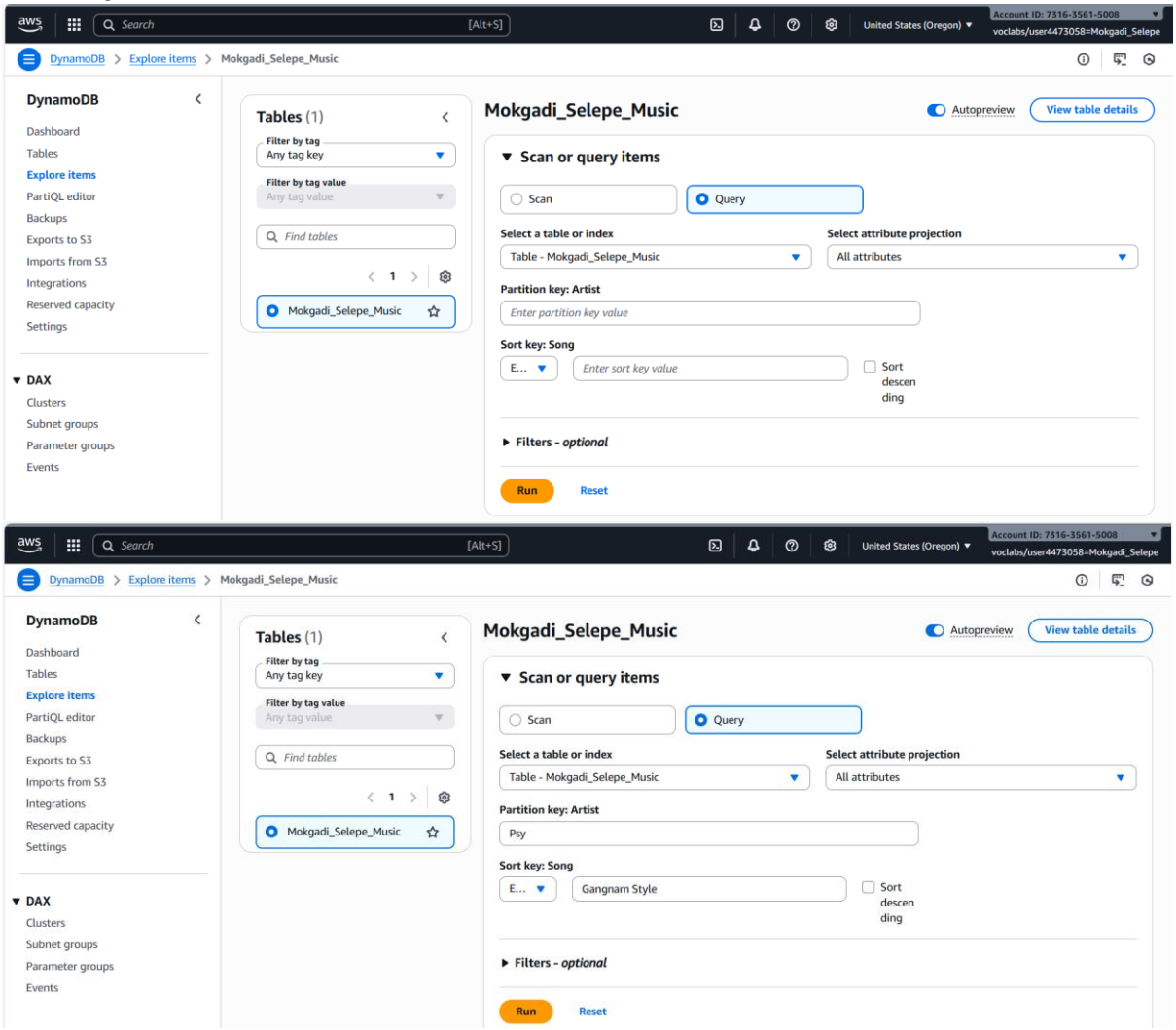
I've fixed a mistake in my music library!

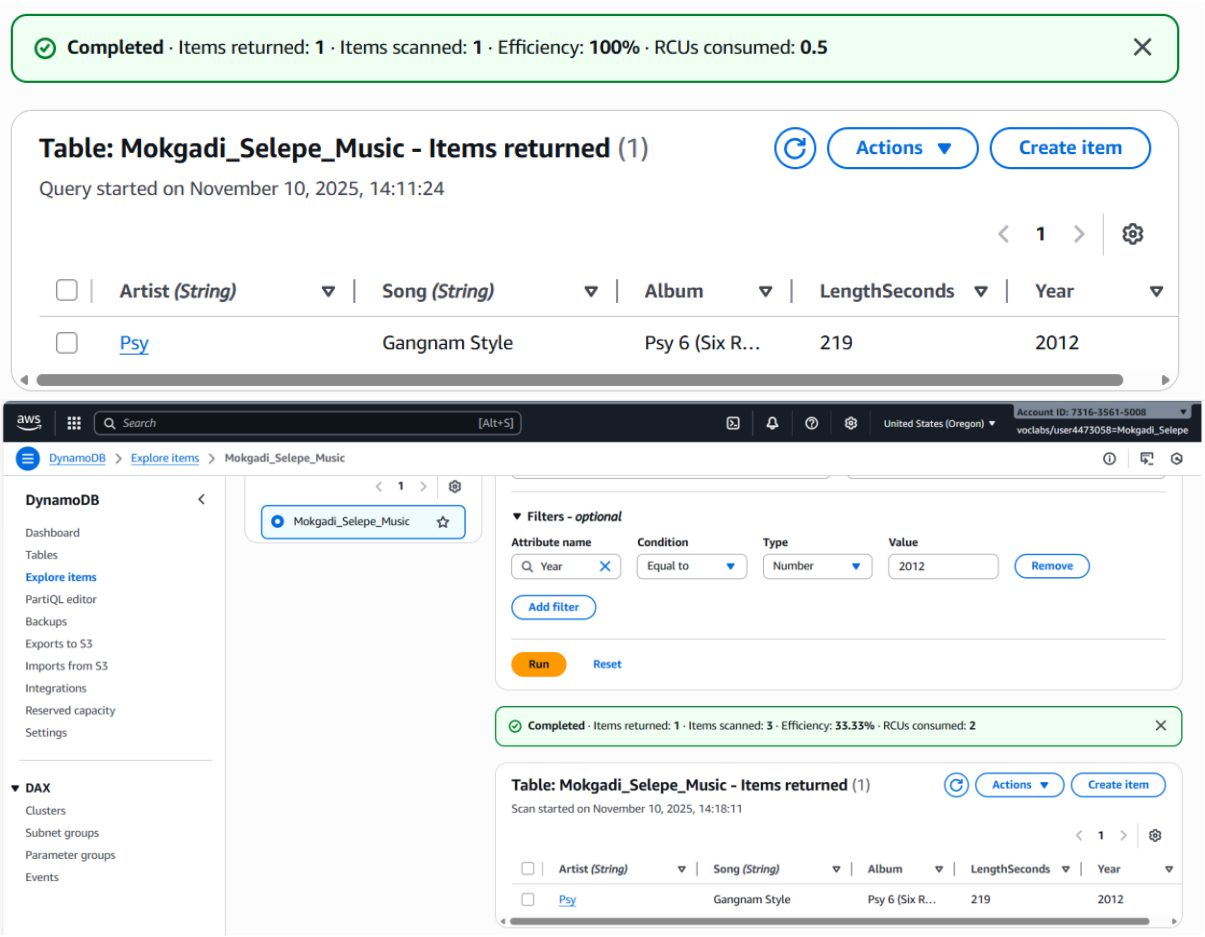
Here's what I did:

- 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





I've searched for songs in my music library!

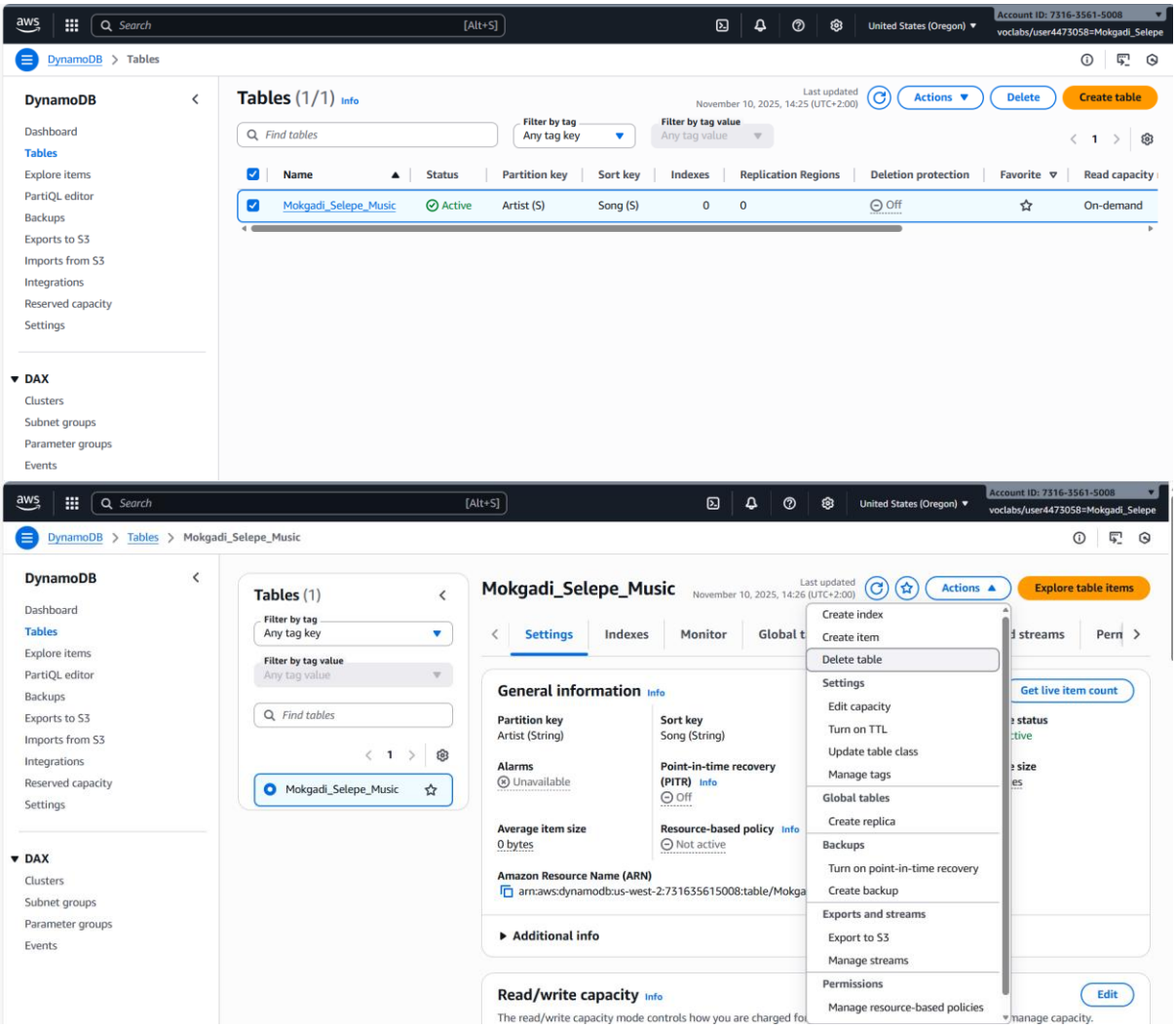
Here's what I did:

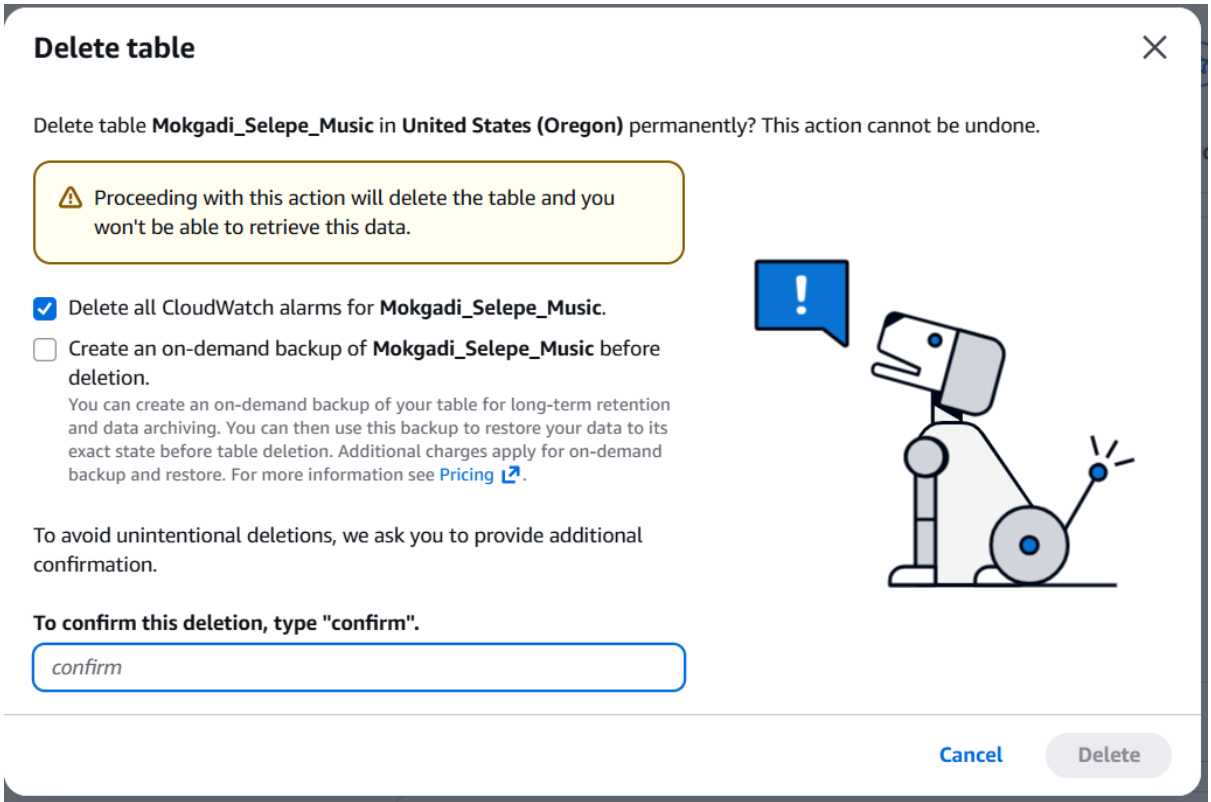
- I used the "Query" feature to find a specific song by Psy called "Gangnam Style".
- I entered the artist name and song title, and it quickly found the song.
- I also used the "Scan" feature to find songs released in 1971.
- It searched through all the songs and found the one that matched.

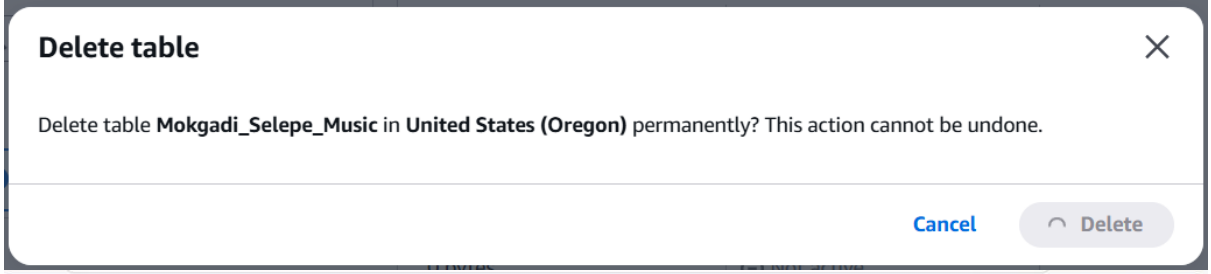
Think of it like searching for songs in my music library:

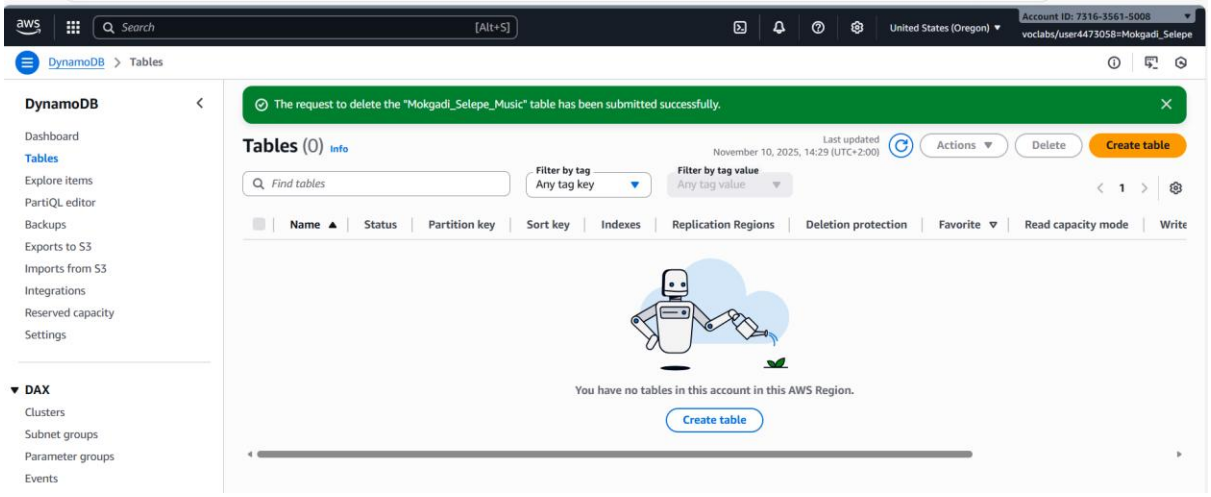
- I searched for a specific song and found it fast.
- I also searched for songs from a specific year, and it found the one I was thinking of!

5: Delete the 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".

- 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!
