

Introduction to Amazon DynamoDB

Task 1: Create a New Table

In this task we will create a new table named Music, in DynamoDB. Each table requires Primary Key. This key is used to partition data across DynamoDB servers. The table can have a Sort Key too.

To create a table in DynamoDB, in the search bar we search for and choose DynamoDB. From the starting page we choose Create table. On the Create table page we configure the options from the table, like Table name, Partition key, Sort key etc.

[DynamoDB](#) > [Tables](#) > [Create table](#)

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.

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

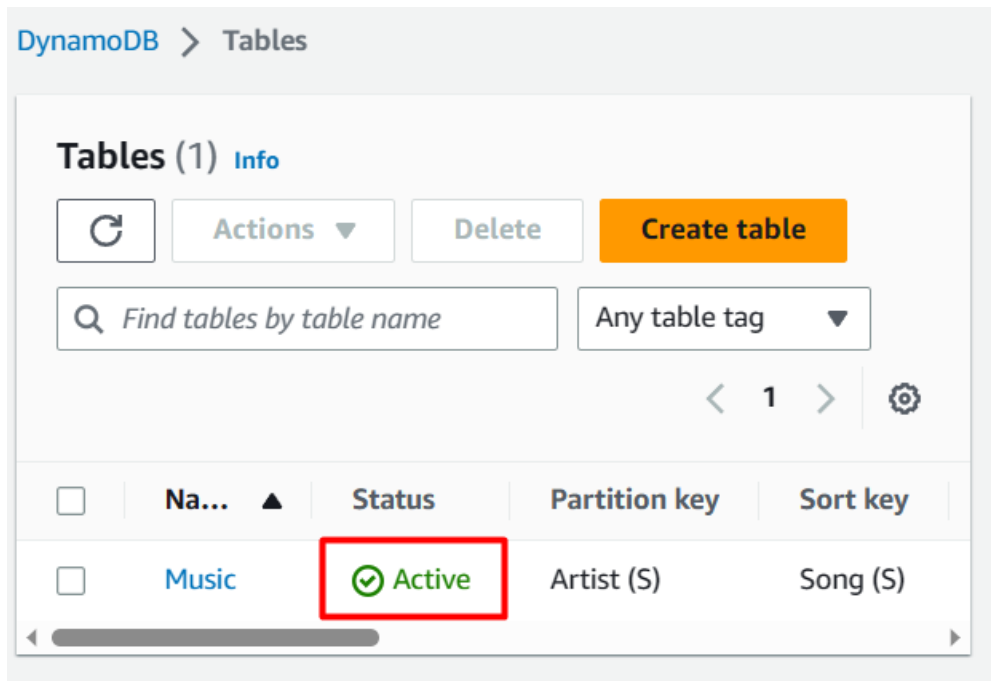
Partition key
The partition key is part of the table's primary key. It is a hash value that is used to retrieve items from your table and allocate data across hosts for scalability and availability.

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.

1 to 255 characters and case sensitive.

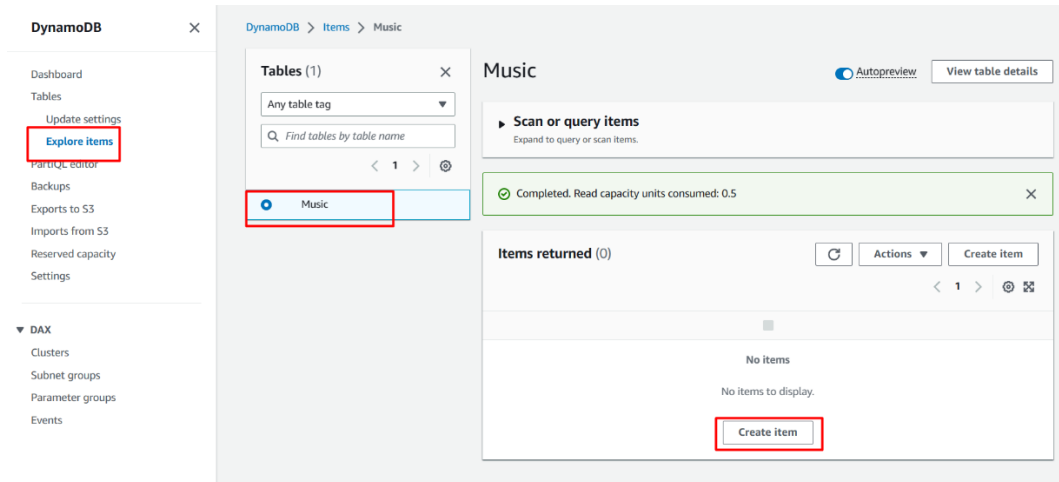
When we are done, we go to the Create table button. After the table is created, the status is changed to Active. With these we have successfully created a new table.



Task 2: Add Data

In this task we will add data to our table. When we add an item to a DynamoDB table, we use only the Primary key and the Sort key. These two keys are the only ones that are required. In DynamoDB we can add attributes to one item that can be different to the attributes on other items.

For us to add data to the table we go to Explore items and from the left navigation pane we choose Explore items, we select the table we want to add items to and choose Create item.



On the Create item page we can add our attributes. If we want to add additional items, we select Add new attribute.

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	
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**

When the item is created, we get the message for successfully saving the item. For the needs for our exercise, we will create two new items, with all the needed attributes respectively. Screenshots will be provided for the two new items.

First item:

Attributes Add new attribute ▼

+ Attribute name	Value	Type	
Artist - Partition key	<input type="text" value="John Lennon"/>	String	
Song - Sort key	<input type="text" value="Imagine"/>	String	
<input type="text" value="Album"/>	<input type="text" value="Imagine"/>	String	<input type="button" value="Re"/>
<input type="text" value="Year"/>	<input type="text" value="1971"/>	Number	<input type="button" value="Re"/>
<input type="text" value="Genre"/>	<input type="text" value="Soft rock"/>	String	<input type="button" value="Re"/>

Cancel Create item

Second item:

Attributes Add new attribute ▼

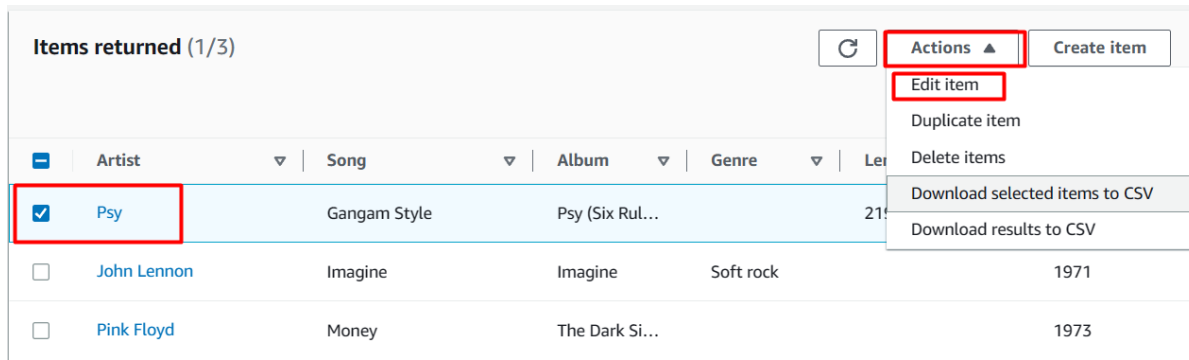
+ Attribute name	Value	Type	
Artist - Partition key	<input type="text" value="Psy"/>	String	
Song - Sort key	<input type="text" value="Gangam Style"/>	String	
<input type="text" value="Album"/>	<input type="text" value="Psy (Six Rules), Part 1"/>	String	<input type="button" value="Re"/>
<input type="text" value="Year"/>	<input type="text" value="2011"/>	Number	<input type="button" value="Re"/>
<input type="text" value="LengthSeconds"/>	<input type="text" value="219"/>	Number	<input type="button" value="Re"/>

Cancel Create item

With these we successfully added data to our table.

Task 3: Modify an Existing Item

In this task we will modify an existing item. To do this we will select the Psy value for our Artist attribute from the list of offered items. We choose Actions and then Edit item.



Items returned (1/3)

Actions ▲ Create item

Edit item

Duplicate item

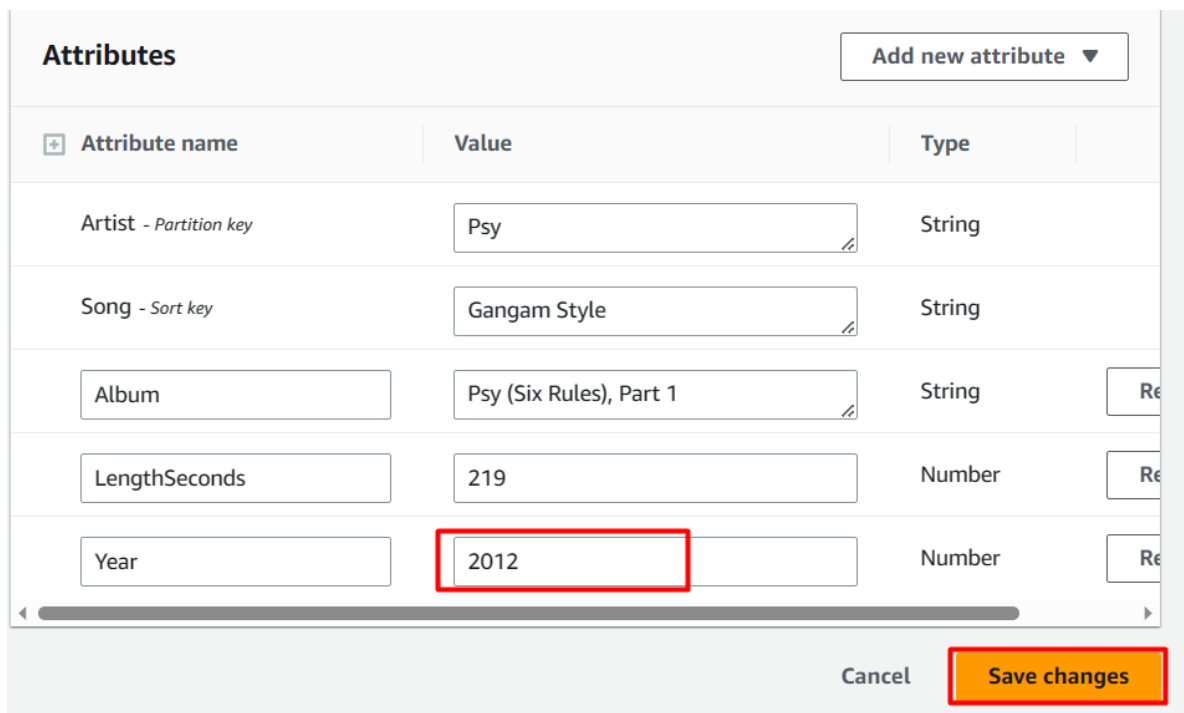
Delete items

Download selected items to CSV

Download results to CSV

	Artist	Song	Album	Genre	Length
<input checked="" type="checkbox"/>	Psy	Gangnam Style	Psy (Six Rules, Part 1)		219
<input type="checkbox"/>	John Lennon	Imagine	Imagine	Soft rock	1971
<input type="checkbox"/>	Pink Floyd	Money	The Dark Side of the Moon		1973

We change the year from 2011 to 2012. When we are all done, we choose Save changes.



Attributes Add new attribute ▼

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

Cancel Save changes

With this we successfully updated the item.

Task 4: Query the Table

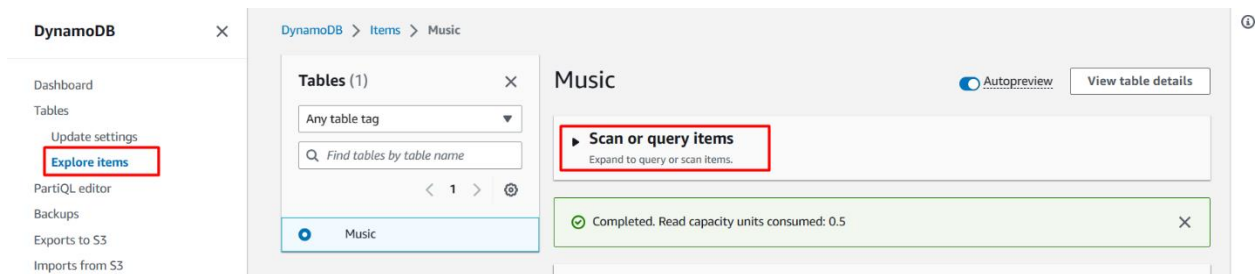
In this task we will query the table we created. There are two ways to accomplish this in DynamoDB tables:

- Query – finds items based on Primary Key and optionally Sort Key. More efficient.
- Scan – looks through every item in the table. Less efficient.

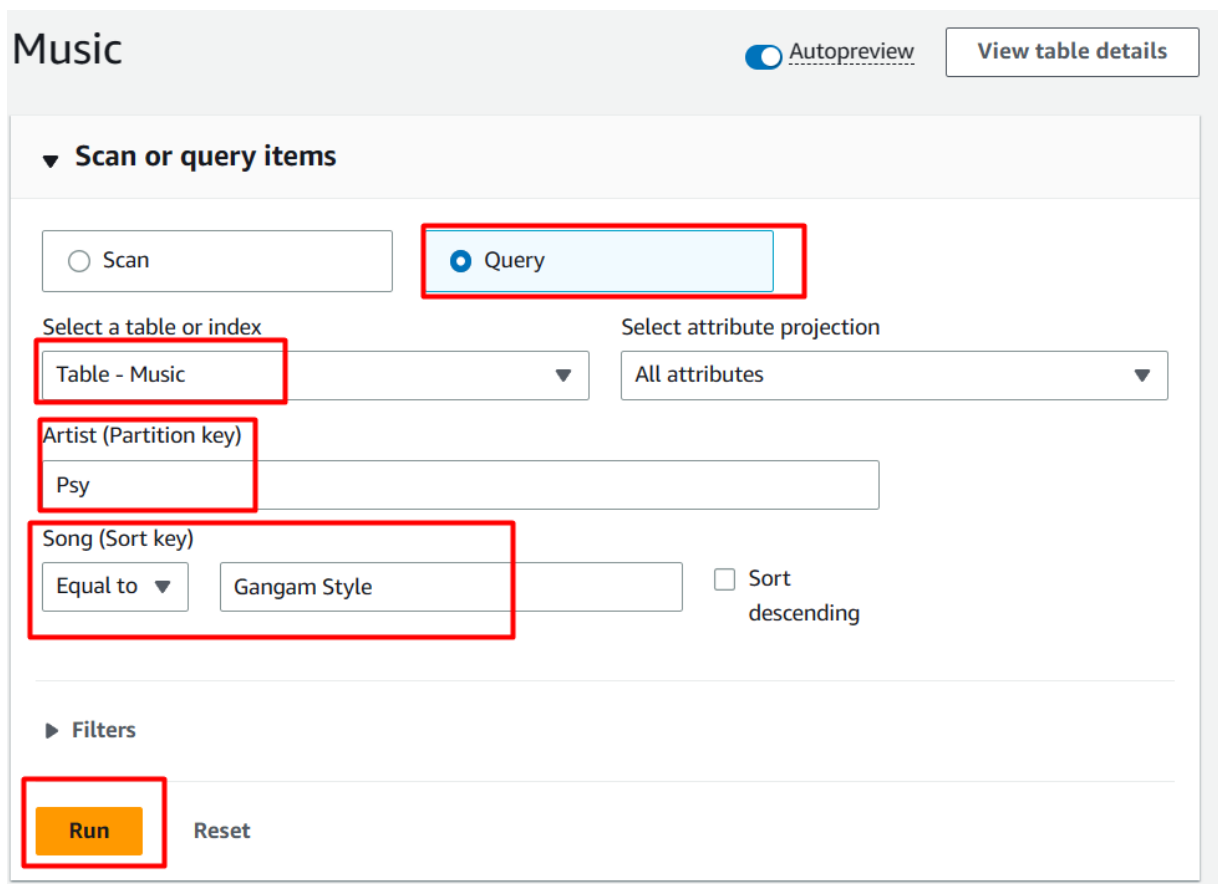
We will show how to use both queries.

Using the Query optional

From the left navigation pane, we select Explore items and select the table. In our case the Music table. We go to Expand -> Scan or Query items and select Query.



We configure the Partition Key which is same as Primary Key and Sort Key and choose Run.



The result quickly appears in the list.

✓ Completed. Read capacity units consumed: 0.5

Items returned (1)

Actions

Create item

< 1 >

<input type="checkbox"/>	Artist	Song	Album	LengthSeconds	NewValue
<input type="checkbox"/>	Psy	Gangnam Style	Psy 6 (Six Rules), Part 1	219	2012

Next, we will show the Scan query.

Using the Scan option

Now instead of Query we select Scan. We expand the Filters section and configure the given options. After we do that, we choose Run.

Music

Autopreview

View table details

▼ Scan or query items

☒ Scan

☐ Query

Select a table or index

Table - Music

Select attribute projection

All attributes

▼ Filters

Attribute name	Type	Condition	Value	
Year	Number	Equal to	1971	<div>Remove</div>

Add filter

Run

Reset

The result is shown after we run the Scan.

Completed. Read capacity units consumed: 0.5

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Items returned (1)

↺

↻

Actions ▾

Create item

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1

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⚙️

✖️

<input type="checkbox"/>	Artist ▾	Song ▾	Album ▾	Genre ▾	Year ▾
<input type="checkbox"/>	John Lennon	Imagine	Imagine	Soft Rock	1971

With this we successfully used the query and scan options.

Task 5: Delete the Table

In this final task we will see how to delete the table we created. This deletes the table with all the data in the table.

From the left navigation pane, we choose Tables and we select the table we want to delete and choose Delete.

DynamoDB

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Dashboard

Tables

Update settings

Explore items

PartiQL editor

Backups

Exports to S3

Imports from S3

Reserved capacity

Settings

DynamoDB > Tables

Tables (1/1) Info

↺

Actions ▾

Delete

Create table

🔍 Find tables by table name

Any table tag ▾

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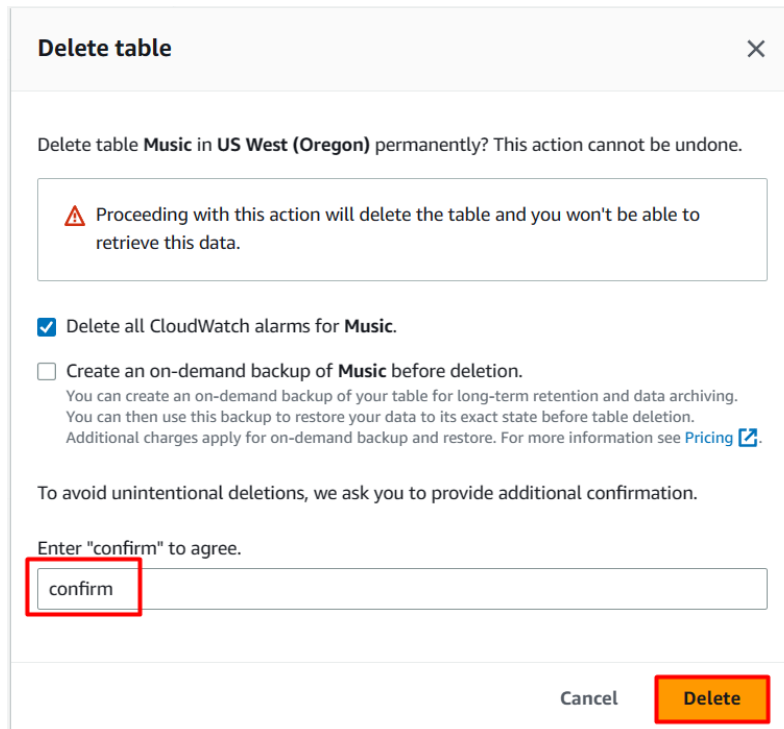
1

>

⚙️

<input checked="" type="checkbox"/>	Na... ▲	Status	Partition key	Sort key	Inde
<input checked="" type="checkbox"/>	Music	Active	Artist (S)	Song (S)	

When we click Delete a pop-up window appears. In the Enter "confirm" to agree field we type confirm and click Delete.



Delete table [X]

Delete table **Music** in **US West (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 **Music**.

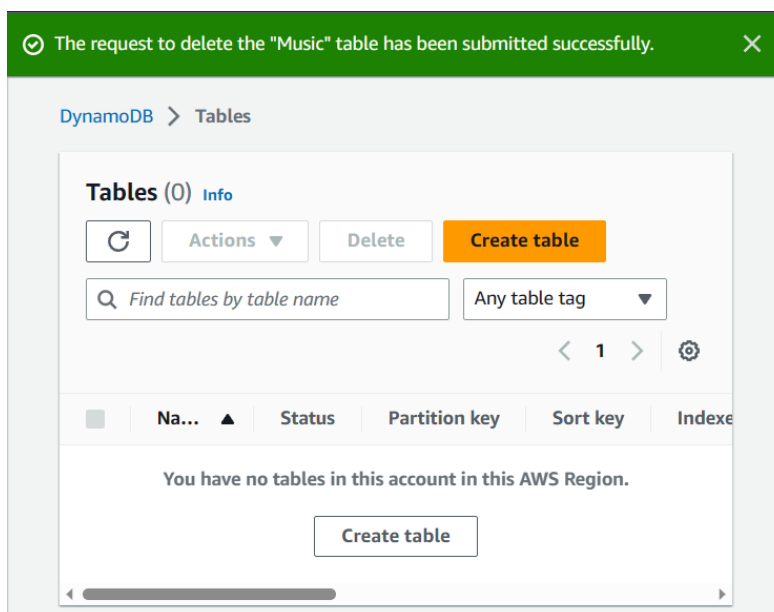
☐ Create an on-demand backup of **Music** before deletion.
You can create an on-demand backup of your table for long-term retention and data archiving. You can then use this backup to restore your data to its exact state before table deletion. Additional charges apply for on-demand backup and restore.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

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

Enter "confirm" to agree.

Cancel Delete

After this we get a message that is displayed on the top of the screen. We use the refresh option to confirm the table deletion.



✓ The request to delete the "Music" table has been submitted successfully. [X]

DynamoDB > Tables

Tables (0) [Info](#)

Refresh Actions ▼ Delete Create table

Any table tag ▼

< 1 > ⚙

	Na...	Status	Partition key	Sort key	Indexe
You have no tables in this account in this AWS Region.					

Create table

With this we have successfully deleted the table.