Amazon DynamoDB
Create and Query a NoSQL Table

Topic : DynamoDB (cloud NoSQL DB)

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Training Content

Tutorial

1 Introduction

In this tutorial, you will learn how to create a simple table, add data, scan and query the data by using the DynamoDB console. DynamoDB is a fully managed NoSQL database that supports both document and key-value store models. Its flexible data model, reliable performance, and automatic scaling of throughput capacity make it a great fit for mobile, web, gaming, ad tech, IoT, and many other applications.

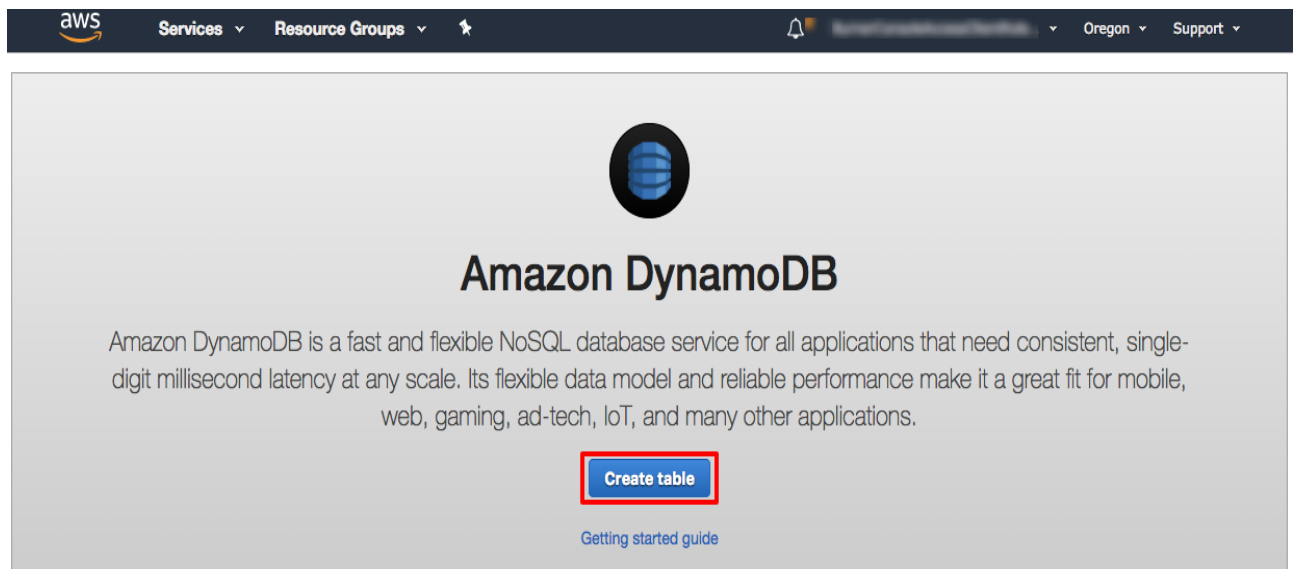## 1.1 Create a NoSQL Table

In the DynamoDB console, choose Create table.

Figure 1: Create NoSQL table

We will use a music library as our use case for this tutorial. In the Table name box, type Music.

Figure 2: Specify the table name

The partition key is used to spread data across partitions for scalability. It's important to choose an attribute with a wide range of values and that is likely to have evenly distributed access patterns. Type Artist in the Partition key box.

Figure 3: Specifying the partition key

Because each artist may write many songs, you can enable easy sorting with a sort key. Select the Add sort key check box. Type songTitle in the Add sort key box.

Figure 4: Adding a sort key

Next, you will enable DynamoDB auto scaling for your table.

DynamoDB auto scaling will change the read and write capacity of your table based on request volume. Using an AWS Identity and Access Management (AWS IAM) role called DynamoDBAutoscaleRole, DynamoDB will manage the auto scaling process on your behalf. DynamoDB creates this role for you the first time you enable auto scaling in an account.

Instruct DynamoDB to create the role by clearing the Use default settings check box.

Figure 5: Default settings for autoscaling

Scroll down the screen past Secondary indexes, Provisioned capacity, and Auto Scaling to the Create button. We won't change these settings for the tutorial.

In the Auto Scaling section, notice that DynamoDB will create the DynamoDBAutoscaleRole role for you.

Now choose Create.

Figure 6: Create NoSQL Database

2 Add Data to the NoSQL Table

Select the Items tab. On the Items tab, choose Create item .
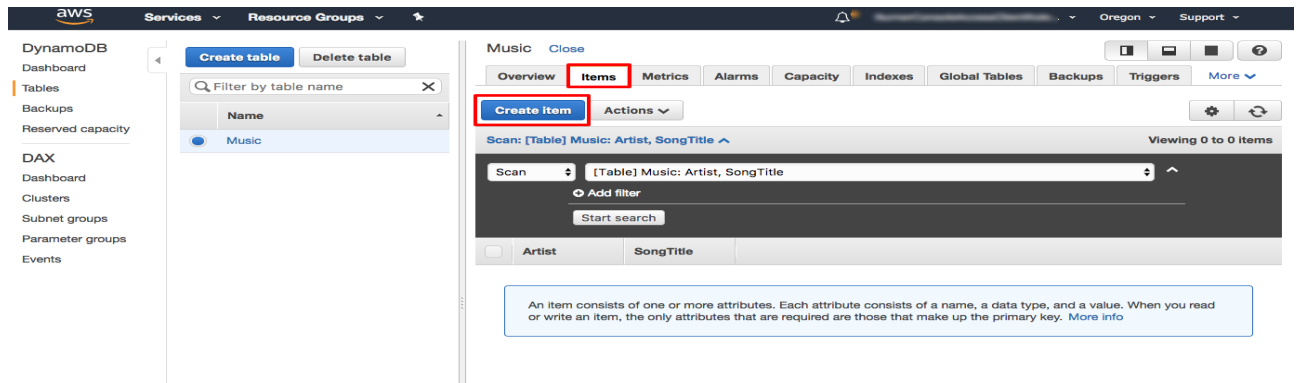

Figure 7: Add items to NoSQL table

In the data entry window, type the following:

For the Artist attribute, type No One You Know. For the songTitle attribute, type Call Me Today. Choose Save to save the item.
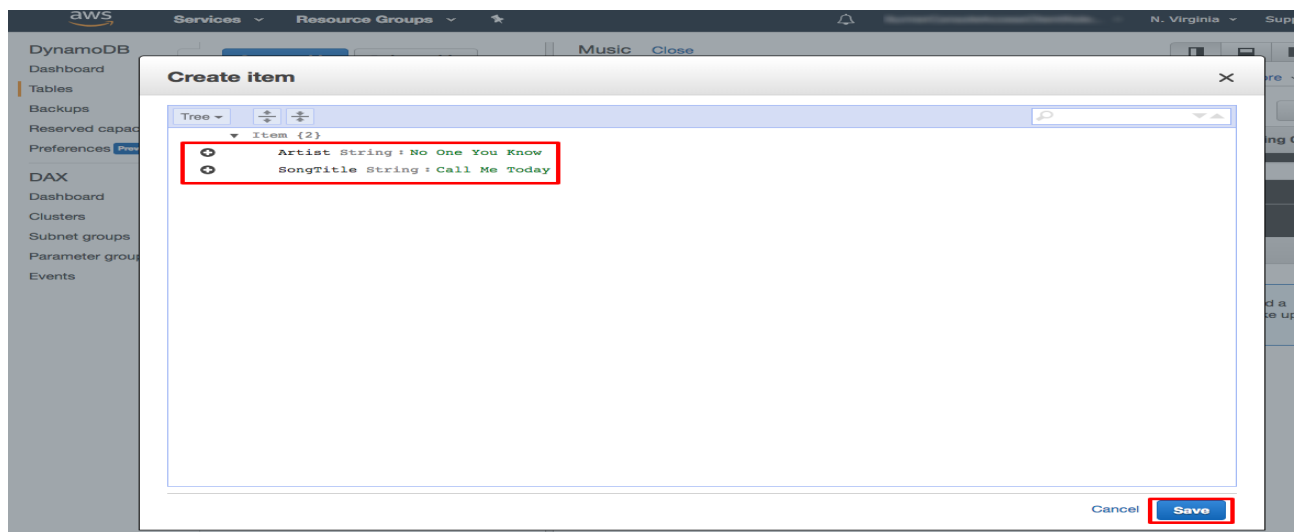

Figure 8: Adding data items

Repeat the process to add a few more items to your Music table:

Artist: No One You Know; songTitle: My Dog Spot
Artist: No One You Know; songTitle: Somewhere Down The Road
Artist: The Acme Band; songTitle: Still in Love
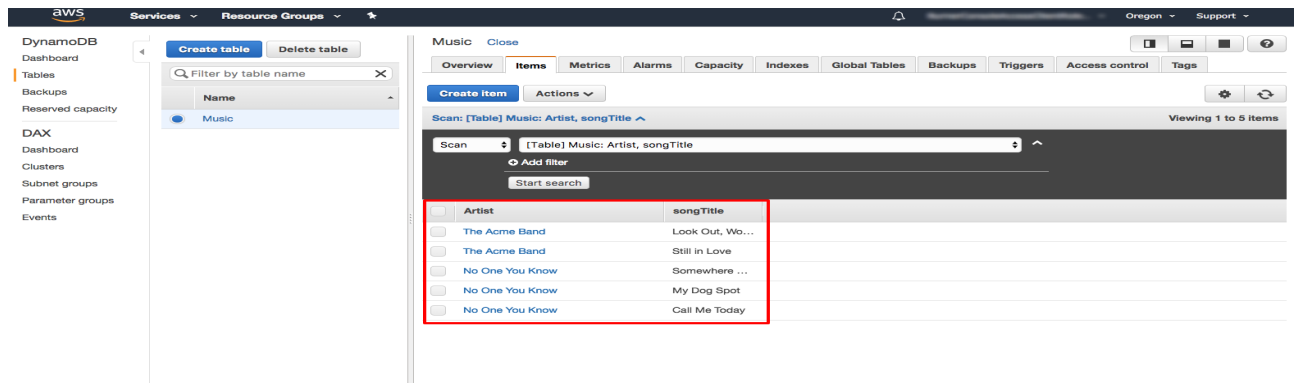Artist: The Acme Band; songTitle: Look Out, World

Figure 9: Repeat the process to add data

3 Query the NoSQL Table

In the drop-down list in the dark gray banner above the items, change Scan to Query.
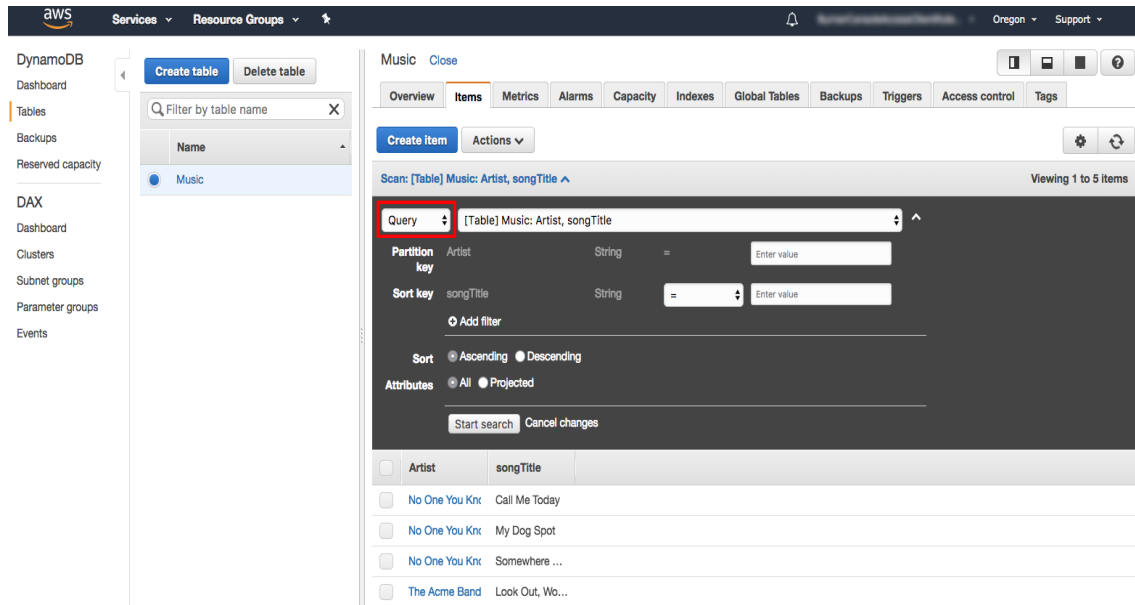

Figure 10: Query the NoSQL table

You can use the console to query the Music table in various ways. For your first query, do the following:

In the Artist box, type No One You Know, and choose Start search. All songs performed by No One You Know are displayed.

Try another query:

In the Artist box, type The Acme Band, and choose Start search. All songs performed by The Acme Band are displayed.
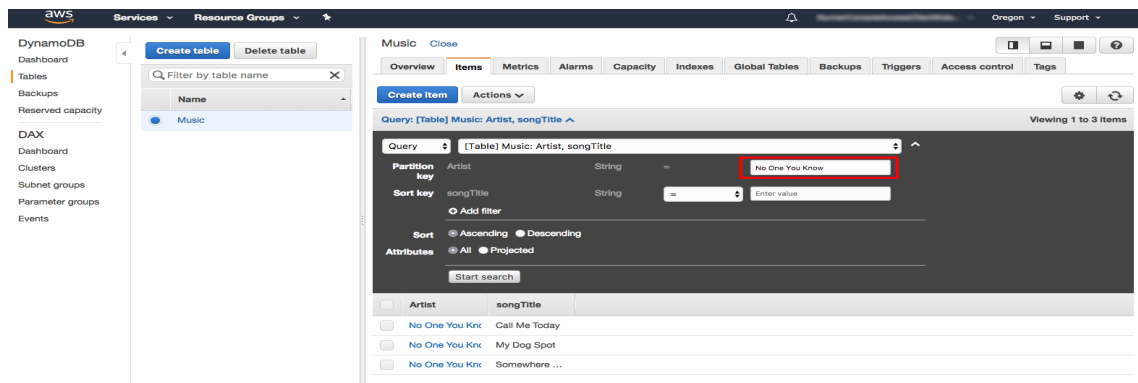
Figure 11: Query the table