

## Lesson 06 Demo 01

### Database Operations in DynamoDB

**Objective:** To create a database table that can store and read items using the DynamoDB console

**Tools require:** AWS WorkSpaces

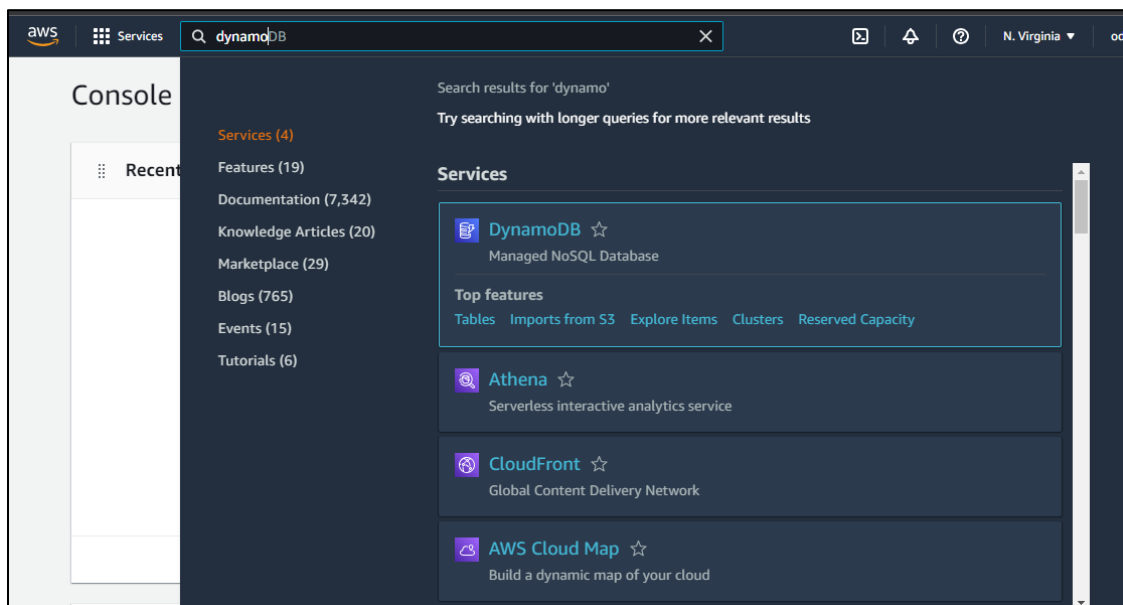
**Prerequisites:** AWS account

Steps to be followed:

1. Create a table
2. Store and read the items

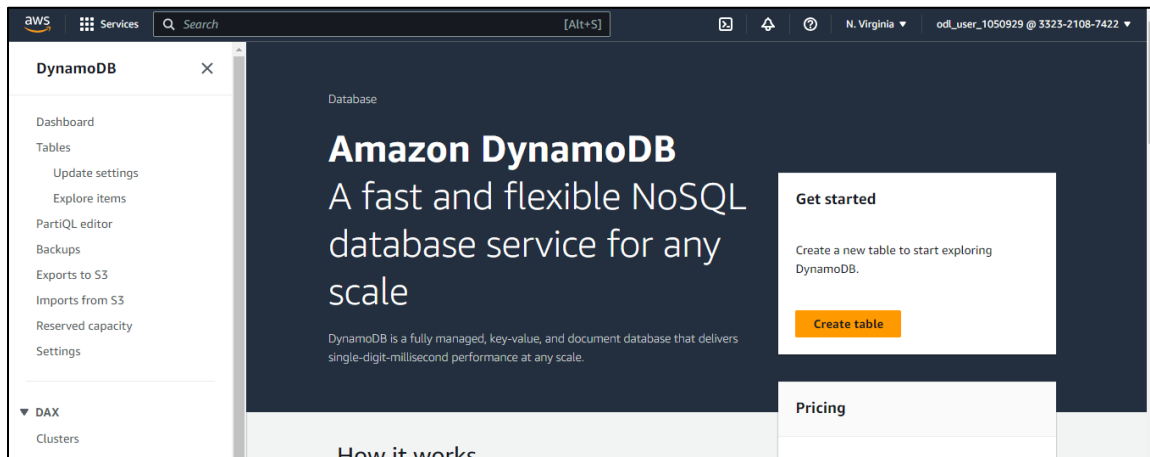
#### Step 1: Create a table

1.1 Navigate to the AWS portal and search for and select **DynamoDB**

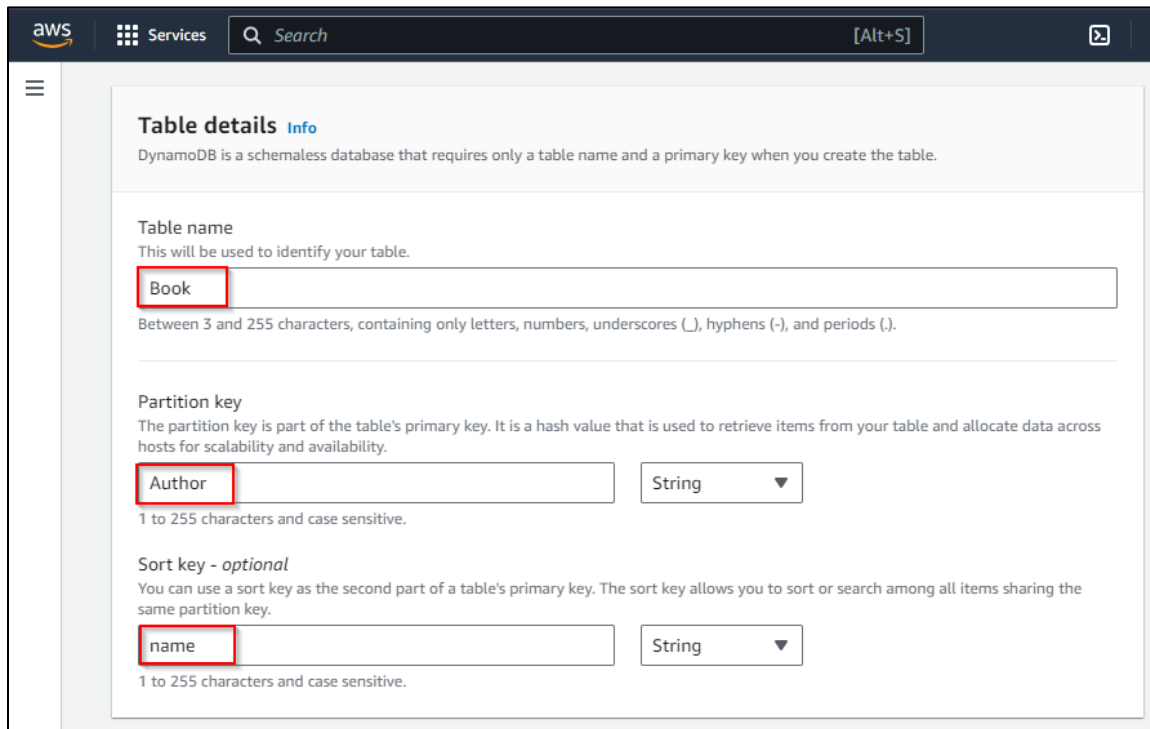


**Note:** Ensure that the region is **US East (N. Virginia) us-east-1**

## 1.2 Click on the **Create table** button



## 1.3 Enter the desired **Table name** and **Partition key**, and provide a name for the **Sort key**



**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 (.).

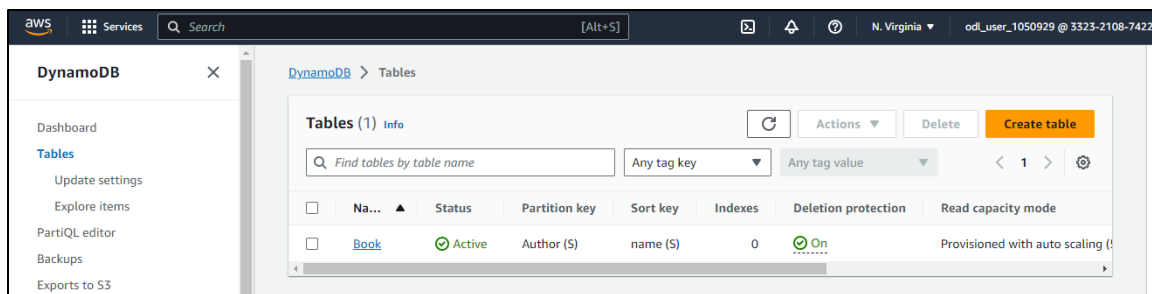
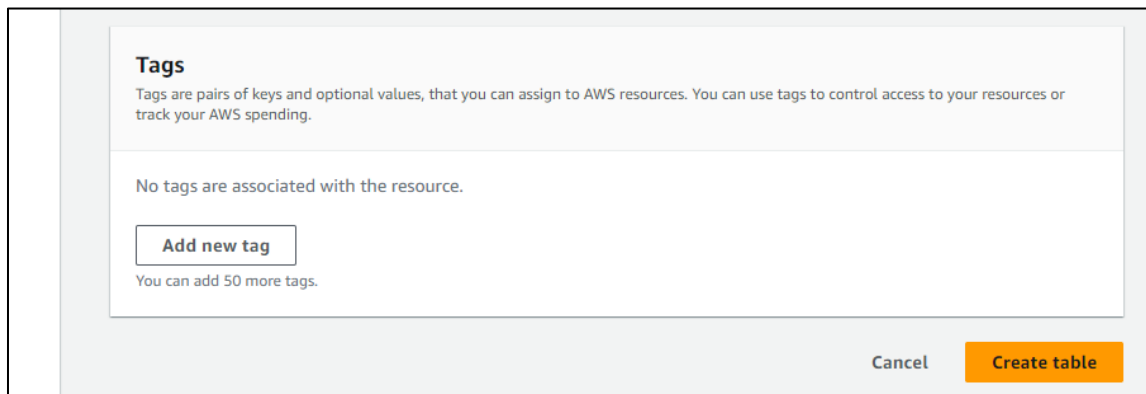
**Partition key**  
The partition key is part of the table's primary key. It is a hash value that is used to retrieve items from your table and allocate data across hosts for scalability and availability.

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.

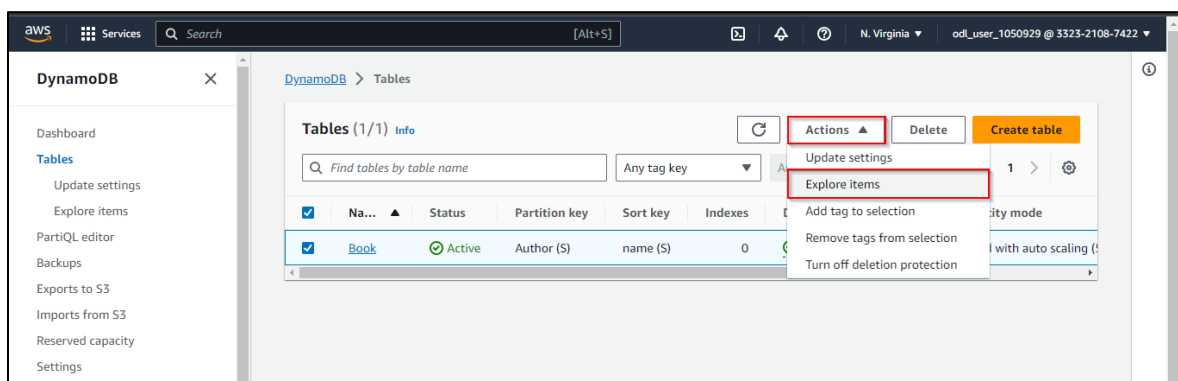
## 1.4 Click on the **Create table** button



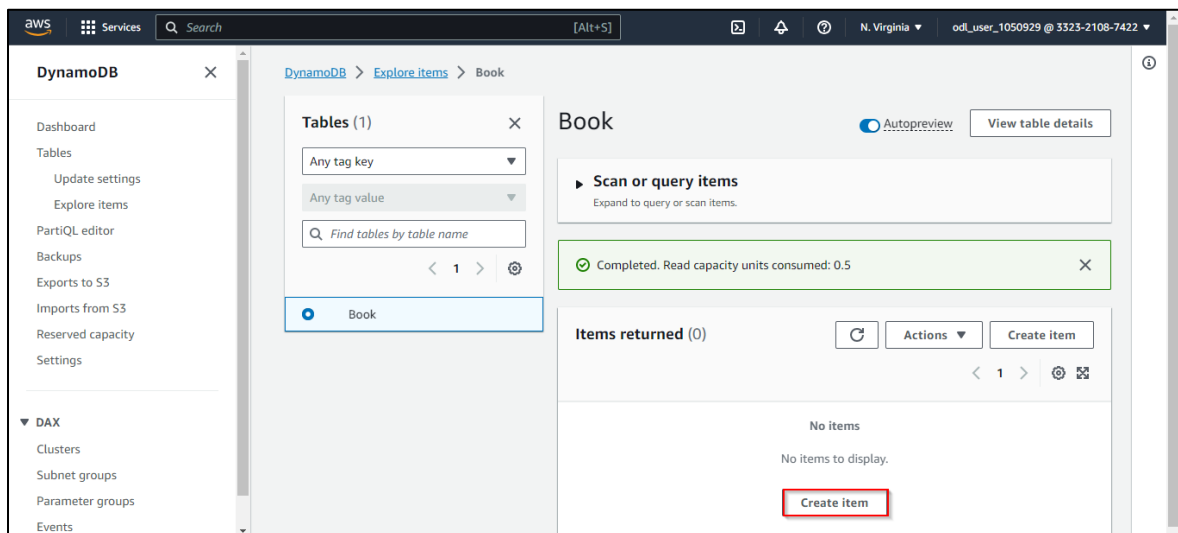
DynamoDB has been created successfully.

## Step 2: Store and read the items

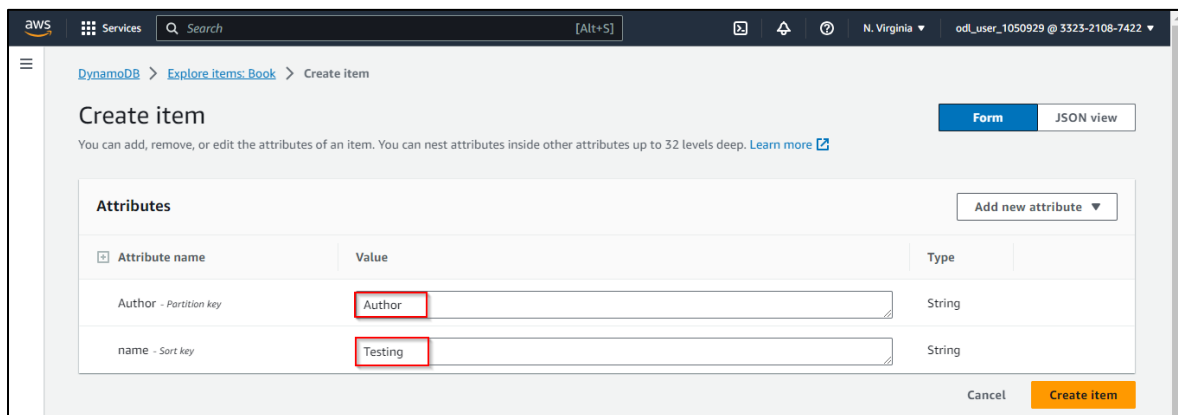
### 2.1 Select **Explore items** under Actions



## 2.2 Click on the **Create item** button



## 2.3 Enter **Author** and **Testing** under **Author** and **name**, respectively



## 2.4 Select **String** under the **Add new attribute** section

The screenshot shows the AWS Management Console 'Create item' page for a DynamoDB instance. The 'Attributes' section contains a table with two existing attributes: 'Author - Partition key' with value 'Author' and 'name - Sort key' with value 'Testin'. A red box highlights the 'Add new attribute' dropdown menu, which is open and shows 'String' as the selected option. Other options in the menu include Number, Boolean, Binary, Null, String set, Number set, Binary set, List, and Map.

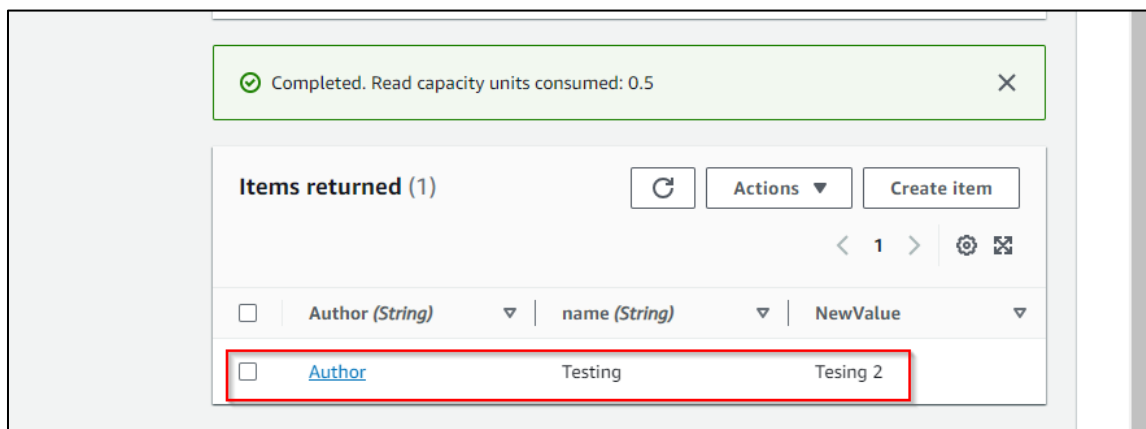
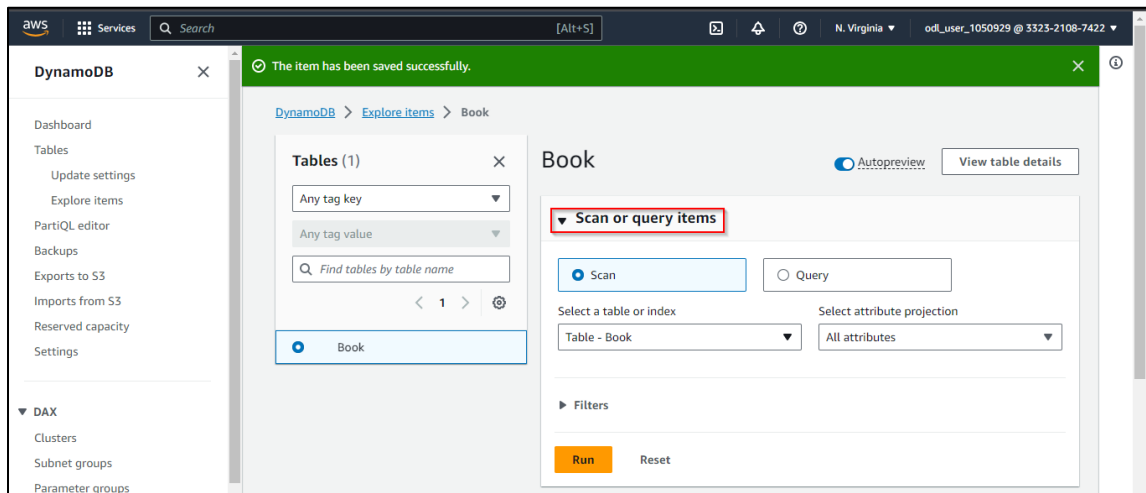
Attribute name	Value	Type
Author - Partition key	Author	String
name - Sort key	Testin	String

## 2.5 Enter the value as **Testing 2** and click the **Create item** button

The screenshot shows the AWS Management Console 'Create item' page. The 'Attributes' table now has three rows: 'Author - Partition key' with value 'Author', 'name - Sort key' with value 'Testing', and a new row with 'NewValue' and 'Testing 2'. The 'Testing 2' value is highlighted with a red box. The 'Add new attribute' dropdown is still open, showing 'String' as the selected option. The 'Create item' button is highlighted in orange at the bottom right.

Attribute name	Value	Type
Author - Partition key	Author	String
name - Sort key	Testing	String
NewValue	Testing 2	String

## 2.6 Click on **Scan or Query items** and select **Run** to retrieve the stored items



By following these steps, you have successfully established a structured table, stored items with attributes, and showcased efficient retrieval. This experience equips you to confidently manage data using DynamoDB for diverse applications.