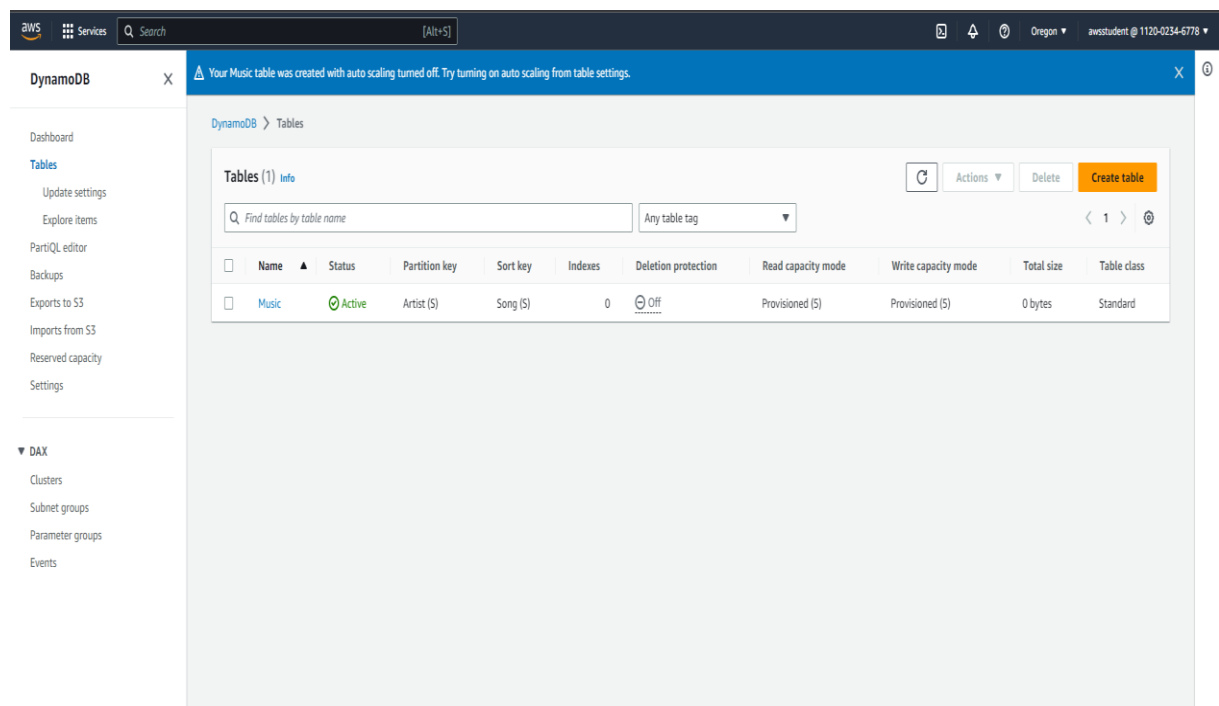


Introduction to Amazon DynamoDB

Lab overview:

- **Task 1: Create a New Table.**

- In this task, you create a new table in DynamoDB, named Music. Each table requires a Primary Key that is used to partition data across DynamoDB servers. A table can also have a Sort Key. The combination of Primary Key and Sort Key uniquely identifies each item in a DynamoDB table.



- **Task 2: Add Data.**

- In this task, you add data to the Music table. A table is a collection of data on a particular topic.
- Each table contains multiple items. An item is a group of attributes that is uniquely identifiable among all of the other items. Items in DynamoDB are similar in many ways to rows in other database systems. In DynamoDB, there is no limit to the number of items you can store in a table.



- Each item is composed of one or more attributes. An attribute is a fundamental data element, something that does not need to be broken down any further. For example, an item in a Music table contains attributes such as Song and Artist. Attributes in DynamoDB are similar columns in other database systems, but each item (row) can have different attributes (columns).
- When you write an item to a DynamoDB table, only the Primary Key and Sort Key (if used) are required. Other than these fields, the table does not require a schema. This means that you can add attributes to one item that may be different to the attributes on other items.

The screenshot shows the AWS Management Console interface for a DynamoDB table named 'Music'. The left sidebar contains navigation links for Dashboard, Tables, Update settings, Explore items, PartiQL editor, Backups, Exports to S3, Imports from S3, Reserved capacity, and Settings. The main content area displays the 'Music' table with a 'Scan or query items' button. Below this, a green notification bar indicates 'Completed. Read capacity units consumed: 0.5'. The 'Items returned (3)' section shows a table with columns: Artist, Song, Album, Genre, LengthSeconds, and Year. The items listed are: Psy (Gangnam Style, 2011), John Lennon (Imagine, 1971), and Pink Floyd (Money, 1973).

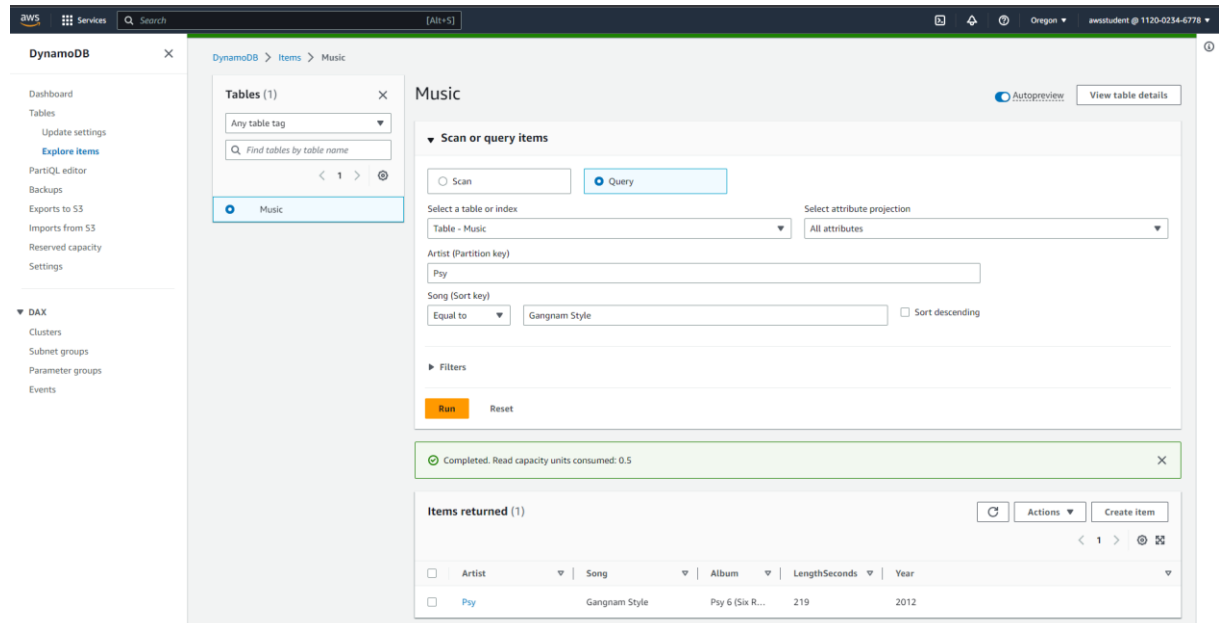
• Task 3: Modify an Existing Item.

- In this task we will modify an Existing item from year 2011 to 2012.

<input checked="" type="checkbox"/>	Psy	Gangnam Style	Psy 6 (Six R...	219	2012
-------------------------------------	-----	---------------	-----------------	-----	------

• Task 4: Query the Table.

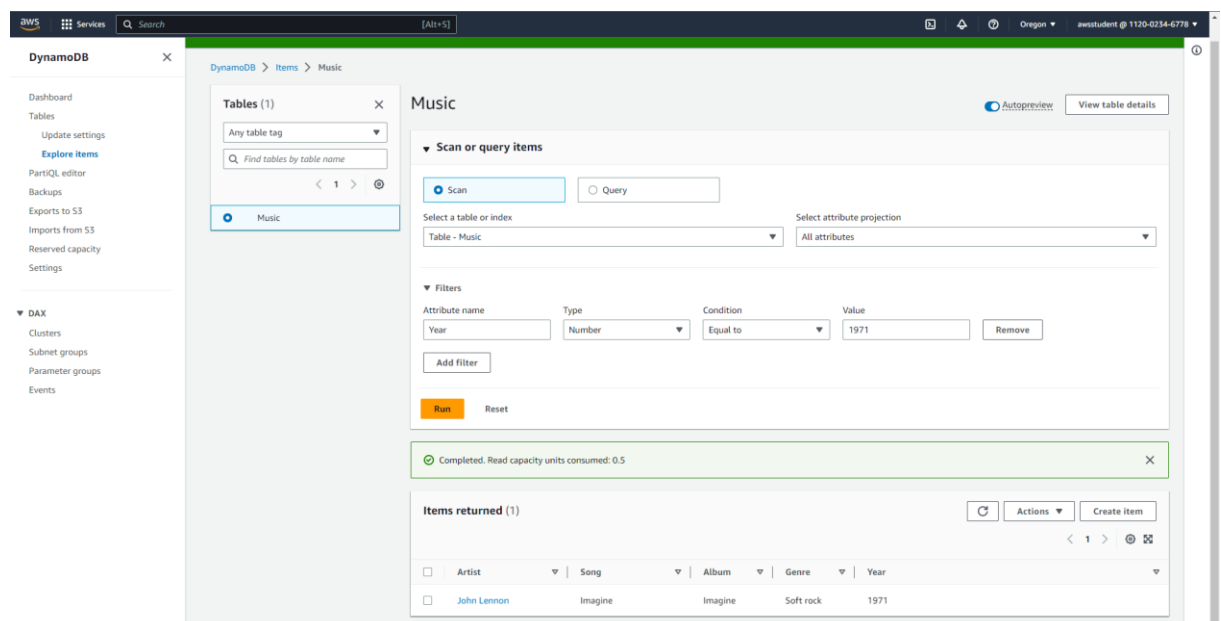
- In this task, you query the Music table. There are two ways to query a DynamoDB table: Query and Scan.



The screenshot shows the AWS DynamoDB console interface. On the left, the 'DynamoDB' sidebar is visible with options like Dashboard, Tables, and DAX. The main panel is titled 'Music' and shows the 'Scan or query items' section. The 'Query' radio button is selected. The 'Select a table or index' dropdown is set to 'Table - Music'. The 'Select attribute projection' dropdown is set to 'All attributes'. The 'Artist (Partition key)' field is set to 'Psy'. The 'Song (Sort key)' field is set to 'Gangnam Style'. The 'Run' button is highlighted. Below the query configuration, a green status bar indicates 'Completed. Read capacity units consumed: 0.5'. The 'Items returned (1)' section shows a table with the following data:

Artist	Song	Album	LengthSeconds	Year
Psy	Gangnam Style	Psy 6 (Six R...	219	2012

- A query operation finds items based on Primary Key and optionally Sort Key. It is fully indexed, so it runs very fast.



The screenshot shows the AWS DynamoDB console interface. On the left, the 'DynamoDB' sidebar is visible with options like Dashboard, Tables, and DAX. The main panel is titled 'Music' and shows the 'Scan or query items' section. The 'Scan' radio button is selected. The 'Select a table or index' dropdown is set to 'Table - Music'. The 'Select attribute projection' dropdown is set to 'All attributes'. The 'Filters' section is expanded, showing a filter for 'Year' with a value of '1971'. The 'Run' button is highlighted. Below the scan configuration, a green status bar indicates 'Completed. Read capacity units consumed: 0.5'. The 'Items returned (1)' section shows a table with the following data:

Artist	Song	Album	Genre	Year
John Lennon	Imagine	Imagine	Soft rock	1971

- **Task 5: Delete the Table.**

- In this task, we will delete the Music table, which also deletes all the data in the table.

