

CLOUD COMPUTING LAB UE20CS351

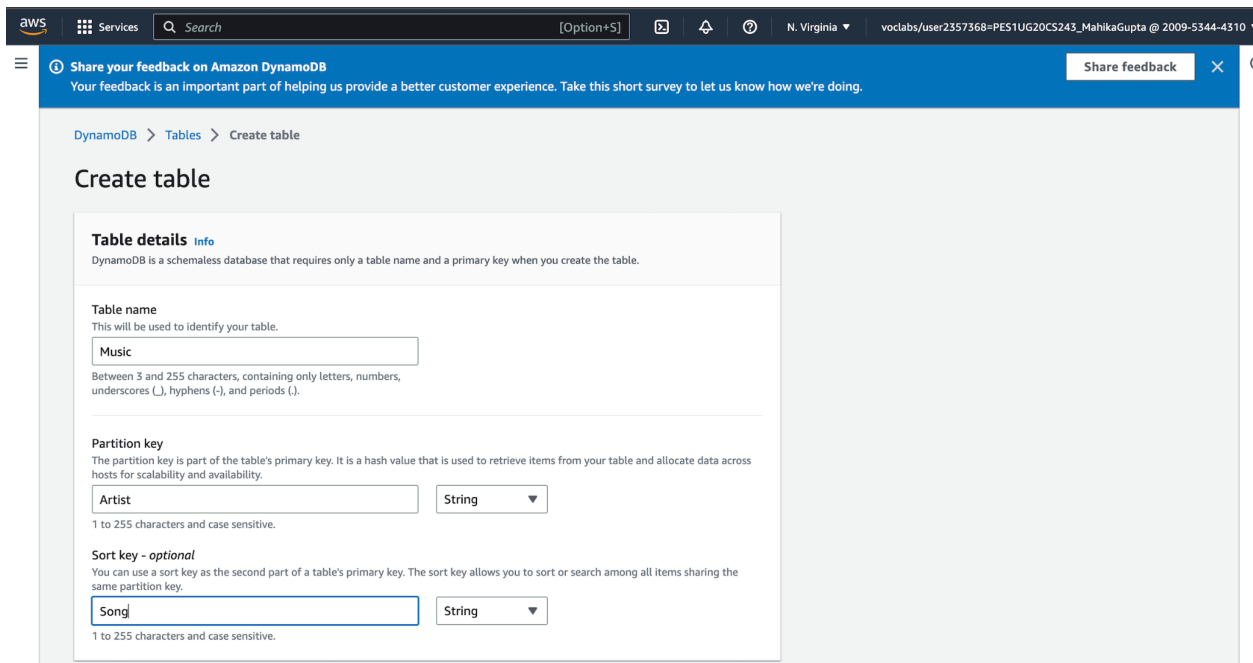
Experiment 3: - Introduction to Amazon DynamoDB

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Deliverables:

The following screenshots are to be submitted:

- Screenshot 1a: Creation of table (1 mark)



The screenshot shows the AWS Management Console interface for creating a new Amazon DynamoDB table. The breadcrumb navigation at the top indicates the path: **DynamoDB** > **Tables** > **Create table**. Below this, the title **Create table** is displayed. The main content area is titled **Table details** and includes a brief description: "DynamoDB is a schemaless database that requires only a table name and a primary key when you create the table." The form contains three sections:
1. **Table name**: A text input field containing "Music". Below the field, a note states: "Between 3 and 255 characters, containing only letters, numbers, underscores (_), hyphens (-), and periods (.)."
2. **Partition key**: A text input field containing "Artist" and a dropdown menu set to "String". A note below states: "1 to 255 characters and case sensitive."
3. **Sort key - optional**: A text input field containing "Song" and a dropdown menu set to "String". A note below states: "1 to 255 characters and case sensitive."

Services

Search

[Option+S]

N. Virginia

voclabs/user2357368=PES1UG20CS243_MahikaGupta @ 2009-5344-4310

Read/write capacity settings

Info

Capacity mode

☐ On-demand

Simplify billing by paying for the actual reads and writes your application performs.

☒ Provisioned

Manage and optimize your costs by allocating read/write capacity in advance.

Read capacity

Auto scaling

Info

Dynamically adjusts provisioned throughput capacity on your behalf in response to actual traffic patterns.

☐ On

☐ Off

Provisioned capacity units

10

Write capacity

Auto scaling

Info

Dynamically adjusts provisioned throughput capacity on your behalf in response to actual traffic patterns.

☐ On

☐ Off

Provisioned capacity units

2

[Option+S]

N. Virginia

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DynamoDB

>

Tables

Tables (2)

Info

Actions

Delete

Create table

Find tables by table name

Any table tag

< 1 >

	Na...	Status	Partition key	Sort key	Indexes	Read capacity mode	Write capacity mo...	Total si...	Ta
<input type="checkbox"/>	Music	Active	Artist (S)	Song (S)	0	Provisioned (10)	Provisioned (2)	0 bytes	St
<input type="checkbox"/>	Music2	Active	Artist (S)	Song (S)	0	Provisioned (10)	Provisioned (2)	0 bytes	St

- Screenshot 2a: Show the inserted entries in table (Make sure the Items returned table is expanded such that all fields are shown and the name of the Table is also visible to the left) (2 marks)

The screenshot shows the AWS DynamoDB console interface. The breadcrumb navigation at the top indicates the path: **DynamoDB** > **Items** > **Music**. The table name **Music** is prominently displayed on the left. A green status bar indicates a successful operation: "Completed. Read capacity units consumed: 0.5". Below this, the "Items returned (3)" section is expanded, showing a table with 3 items. The table has columns: Artist, Song, Album, Genre, LengthSeconds, and Year. The items listed are John Lennon (Imagine, 1971), Pink Floyd (Money, 1973), and Psy (Gangnam Style, 2011).

Artist	Song	Album	Genre	LengthSeconds	Year
John Lennon	Imagine	Imagine	Soft Rock		1971
Pink Floyd	Money	The Dark Si...			1973
Psy	Gangnam Style	Psy 6 (Six R...		219	2011

- Screenshot 3a: Show the entries post update (Make sure the Items returned table is expanded such that all fields are shown and the name of the Table is also visible to the left) (2 marks)

The screenshot shows the AWS DynamoDB console interface after an update. A green banner at the top states: "The item has been saved successfully." The breadcrumb navigation remains: **DynamoDB** > **Items** > **Music**. The table name **Music** is visible on the left. The "Items returned (1/3)" section is expanded, showing a table with 3 items. The item for Psy (Gangnam Style, 2012) is now highlighted in blue, indicating it is the selected item. The other items (John Lennon and Pink Floyd) remain unchanged.

Artist	Song	Album	Genre	LengthSeconds	Year
John Lennon	Imagine	Imagine	Soft Rock		1971
Pink Floyd	Money	The Dark Si...			1973
Psy	Gangnam Style	Psy 6 (Six R...		219	2012

- Screenshot 4a: Result of the query Artist (Partition key): Psy, Song (Sort key): Equal to Gangnam Style (Make sure both the query parameters filled are visible along with the result of the query) (2 marks)

The screenshot shows the AWS DynamoDB console interface. On the left is a navigation menu with options like Dashboard, Tables, Update settings, Explore items, PartiQL editor, Backups, Exports to S3, Imports from S3, Reserved capacity, Settings, DAX, Clusters, Subnet groups, Parameter groups, and Events. The main panel displays a query configuration for the 'Music' table. The 'Artist' partition key is set to 'Psy' and the 'Song' sort key is set to 'Gangnam Style' with the condition 'Equal to'. A 'Run' button is visible. Below the configuration, a green status bar indicates 'Completed. Read capacity units consumed: 0.5'. The 'Items returned (1)' section shows a single result in a table:

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

- Screenshot 4b: Result of Scan filter (Make sure the 'Scan' radio button selection, Attribute name and the result are present in the screenshot) (2 marks)

The screenshot shows the AWS DynamoDB console interface. On the left is a navigation menu with options like Dashboard, Tables, Update settings, Explore items, PartiQL editor, Backups, Exports to S3, Imports from S3, Reserved capacity, Settings, DAX, Clusters, Subnet groups, Parameter groups, and Events. The main panel displays a scan configuration for the 'Music' table. The 'Scan' radio button is selected. The 'Select table or index' dropdown is set to 'Table - Music' and the 'Select attribute projection' dropdown is set to 'All attributes'. A filter is configured with 'Attribute name' as 'Year', 'Type' as 'Number', 'Condition' as 'Equal to', and 'Value' as '1971'. A 'Run' button is visible. Below the configuration, a green status bar indicates 'Completed. Read capacity units consumed: 0.5'. The 'Items returned (1)' section shows a single result in a table:

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

- Screenshot 5a: Data after deletion of an item from the table (1 mark)

The screenshot shows the AWS DynamoDB console interface. At the top, a green notification bar states "Selected items have been deleted successfully." The left sidebar contains navigation options for DynamoDB, including Dashboard, Tables, Update settings, Explore items, PartiQL editor, Backups, Exports to S3, Imports from S3, Reserved capacity, Settings, and DAX. The main content area displays the "Music" table. A "Scan or query items" section is visible, followed by a green status bar indicating "Completed. Read capacity units consumed: 0.5". Below this, a section titled "Items returned (2)" shows a table with 2 items. The table has columns for Artist, Song, Album, Genre, and Year. The items are John Lennon (Imagine, Soft Rock, 1971) and Pink Floyd (Money, The Dark Si..., 1973).

Music

▶ **Scan or query items**
Expand to query or scan items.

Completed. Read capacity units consumed: 0.5

Items returned (2)

	Artist	Song	Album	Genre	Year
<input type="checkbox"/>	John Lennon	Imagine	Imagine	Soft Rock	1971
<input type="checkbox"/>	Pink Floyd	Money	The Dark Si...		1973