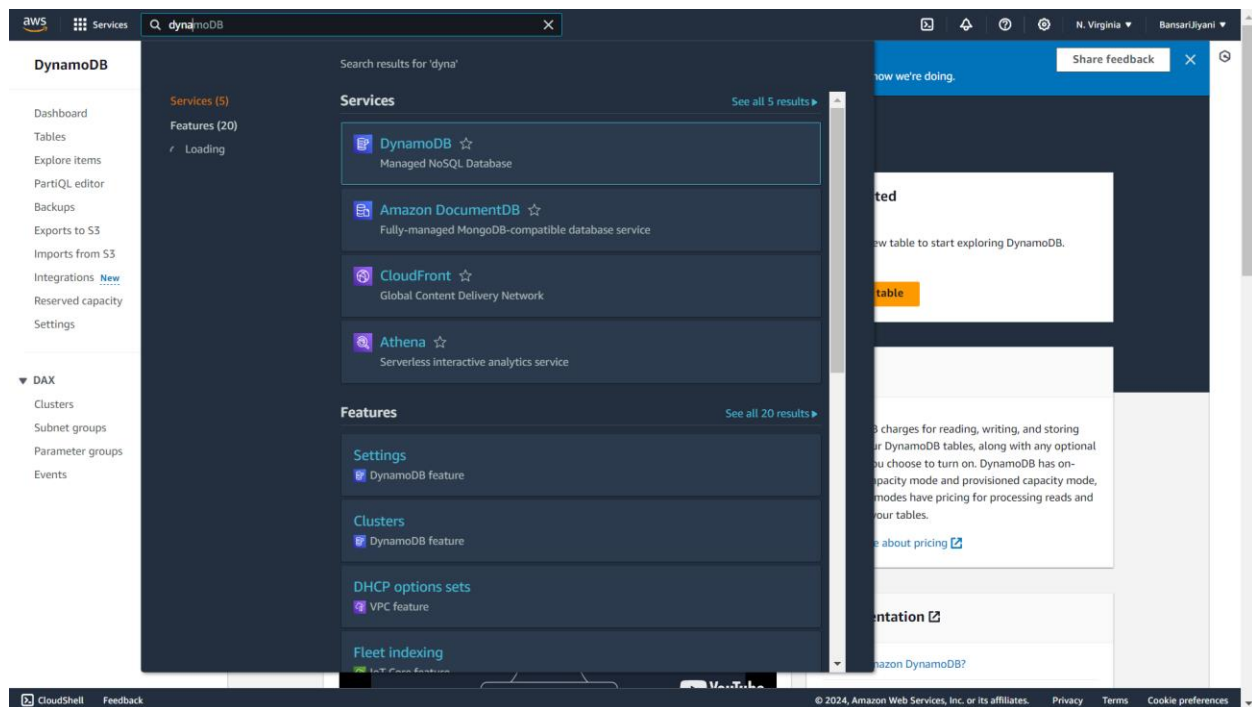


What is DynamoDB ?

- Amazon DynamoDB is a serverless, NoSQL, fully managed database with single-digit millisecond performance at any scale.
- DynamoDB addresses your needs to overcome scaling and operational complexities of relational databases. DynamoDB is purpose-built and optimized for operational workloads that require consistent performance at any scale. For example, DynamoDB delivers consistent single-digit millisecond performance for a shopping cart use case, whether you've 10 or 100 million users.

How to Create table ?



Share your feedback on Amazon DynamoDB
Your feedback is an important part of helping us provide a better customer experience. Take this short survey to let us know how we're doing.

Database

Amazon DynamoDB

A fast and flexible NoSQL database service for any scale

DynamoDB is a fully managed, key-value, and document database that delivers single-digit-millisecond performance at any scale.

Get started

Create a new table to start exploring DynamoDB.

Create table

Pricing

DynamoDB charges for reading, writing, and storing data in your DynamoDB tables, along with any optional features you choose to turn on. DynamoDB has on-demand capacity mode and provisioned capacity mode, and these modes have pricing for processing reads and writes on your tables.

Learn more about pricing

Documentation

How it works

What is Amazon DynamoDB?

Copy link

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Create table

Table details

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.

uses

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.

user_id String

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.

Enter the sort key name String

1 to 255 characters and case sensitive.

Table settings

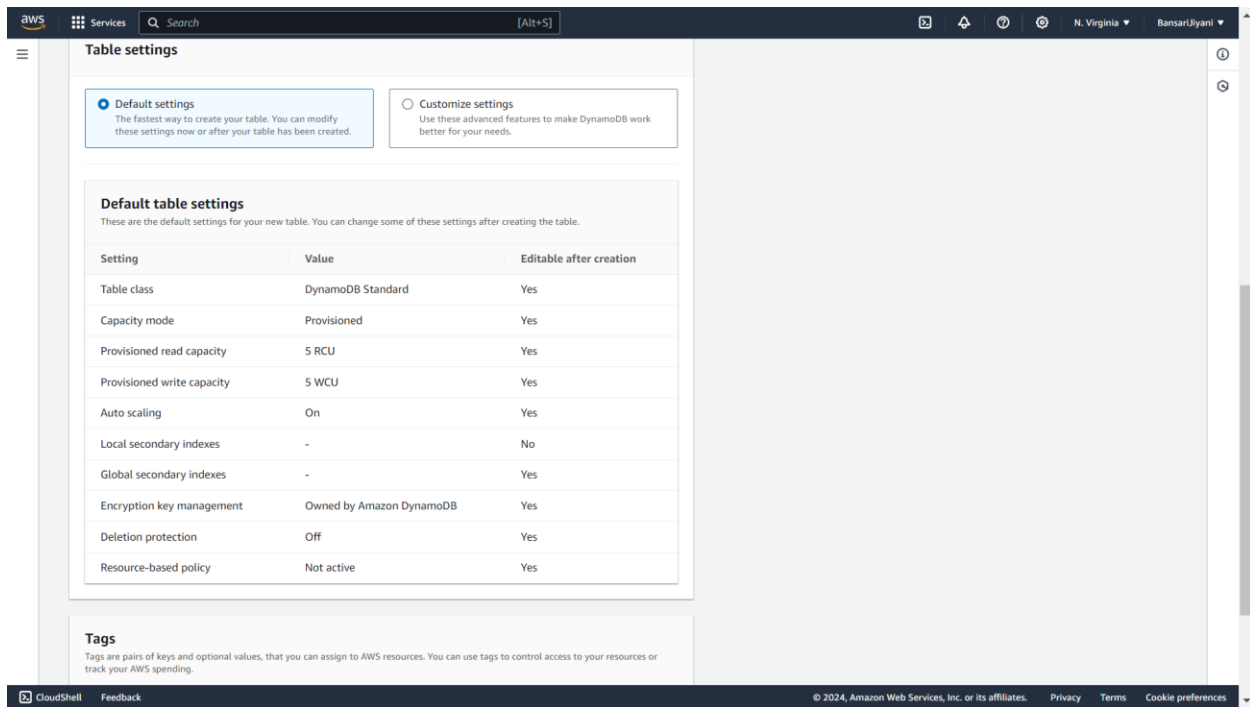
☒ Default settings
The fastest way to create your table. You can modify these settings now or after your table has been created.

☐ Customize settings
Use these advanced features to make DynamoDB work better for your needs.

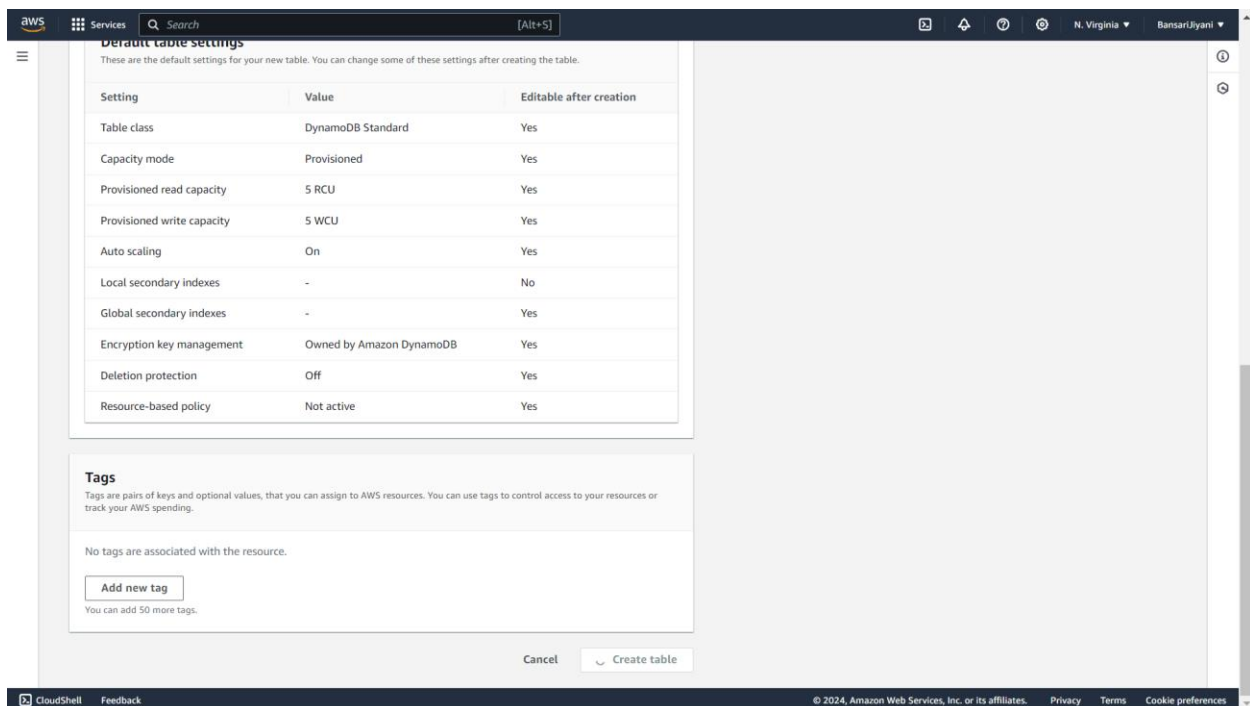
Default table settings

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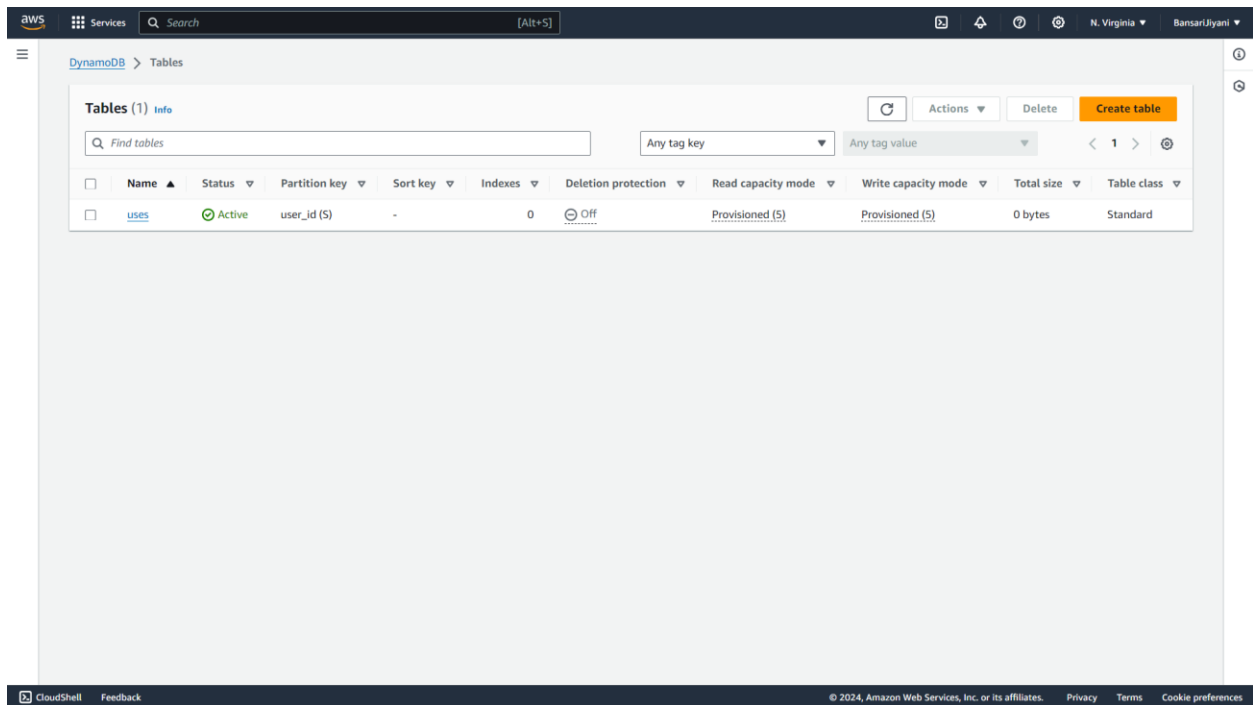
Leave it as a default



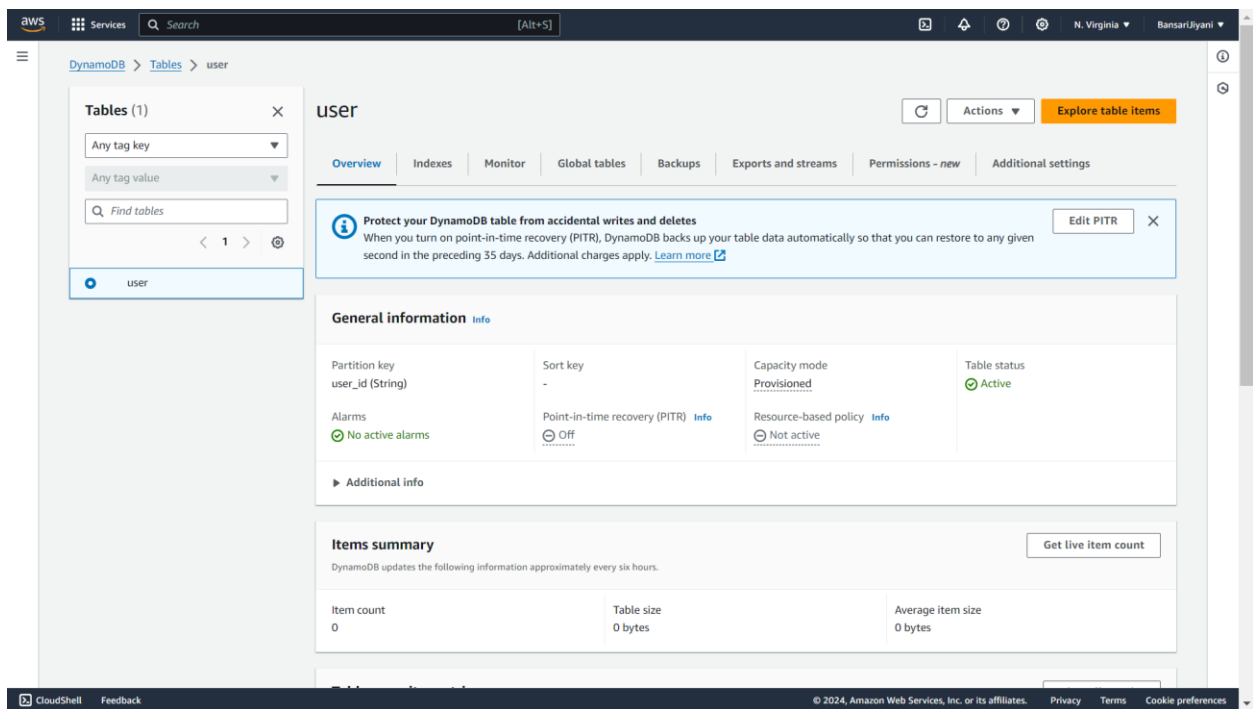
And create a table



Can see here table is created



Now we create item in this table



Go to the actions and select create item

The screenshot shows the AWS Management Console for a DynamoDB table named 'user'. The 'Actions' menu is open, showing options like 'Edit capacity', 'Update table class', 'Delete table', 'Create item', 'Create index', 'Create replica', 'Export to S3', 'Turn on TTL', 'Manage tags', and 'Create access control policy'. The 'Create item' option is highlighted. The table's general information shows a partition key of 'user_id (String)', a sort key of '-', and a capacity mode of 'Provisioned'. The 'Items summary' section shows 0 items.

Attribute name	Value	Type
user_id - Partition key	1	String
name	bansi	String
age	20	Number

The screenshot shows the 'Create item' form for the 'user' table. The 'Form' tab is active, showing a table with columns for 'Attribute name', 'Value', and 'Type'. The attributes are 'user_id - Partition key' (String), 'name' (String), and 'age' (Number). The 'Create item' button is highlighted.

Attribute name	Value	Type
user_id - Partition key	1	String
name	bansi	String
age	20	Number

And create the item and you can see here the item of table

The screenshot shows the AWS DynamoDB console interface for the 'user' table. On the left, a sidebar lists 'Tables (1)' with 'user' selected. The main area is titled 'user' and contains a 'Scan or query items' section. In this section, the 'Scan' button is selected, and the 'Run' button is highlighted. Below the buttons, a green status bar indicates 'Completed. Read capacity units consumed: 0.5'. Underneath, the 'Items returned (1)' section displays a table with one item:

	user_id (String)	age	name
<input type="checkbox"/>	1	20	bansi

When we create a another is same as partition key than it throws error

The screenshot shows the AWS DynamoDB console interface for the 'Create item' form. The 'Form' tab is active. The 'Attributes' section shows three attributes:

Attribute name	Value	Type
user_id - Partition key	1	String
name	henil jiyani	String
age	18	Number

A red error message at the bottom states: "The conditional request failed. An item with the primary key you provided already exists." The 'Create item' button is highlighted.

We can also run the query from here

aws Services Search [Alt+S] N. Virginia Bansari.Jyani

DynamoDB > Explore Items > user

Tables (1) ×

Any tag key ▾

Any tag value ▾

Find tables

1

user

user

Autopreview View table details

▼ Scan or query items

☐ Scan ☒ Query

Select a table or index Table - user

Select attribute projection All attributes

user_id (Partition key)

Enter partition key value

Filters

Run Reset

Completed. Read capacity units consumed: 0.5

Items returned (2)

Actions Create item

1

	user_id (String)	age	name
<input type="checkbox"/>	1	18	henil jyani

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When I entered 1 than it gives user_id 1 record

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DynamoDB > Explore Items > user

Tables (1) ×

Any tag key ▾

Any tag value ▾

Find tables

1

user

user

Autopreview View table details

▼ Scan or query items

☐ Scan ☒ Query

Select a table or index Table - user

Select attribute projection All attributes

user_id (Partition key)

1

Filters

Run Reset

Completed. Read capacity units consumed: 0.5

Items returned (1)

Actions Create item

1

	user_id (String)	age	name
<input type="checkbox"/>	1	20	bansi

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Now we create Partition Key

Primary key is a combination of sort key and partition key.

Partition key defined that our object/item is where is stored in to a physical harddisk.

Partition Key

- **Definition:** The partition key is the primary attribute used to partition data across different nodes in DynamoDB. It's also known as the hash key.

In above table we can not create same user_id item but if we have a more than one item which user name is same but another field is different than we have to use the sort key.

So in this table we create city as a sort key and now we can create more than one same user_id item but their City must be different.

Create a table with a sort key

The screenshot shows the AWS Management Console interface for creating a new DynamoDB table. The breadcrumb navigation at the top indicates the path: **DynamoDB** > **Tables** > **Create table**. The main heading is **Create table**. Below this, there's a section titled **Table details** with a sub-header **Info**. A note states: "DynamoDB is a schemaless database that requires only a table name and a primary key when you create the table." The **Table name** field is labeled "This will be used to identify your table." and contains the text "user-sort-key". A note below it says: "Between 3 and 255 characters, containing only letters, numbers, underscores (_), hyphens (-), and periods (.)". The **Partition key** section is labeled "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." The field contains "user_id" and has a dropdown menu set to "String". A note below it says: "1 to 255 characters and case sensitive." The **Sort key - optional** section is labeled "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." The field contains "city" and has a dropdown menu set to "String". A note below it says: "1 to 255 characters and case sensitive." At the bottom, the **Table settings** section has two radio buttons: **Default settings** (selected) and **Customize settings**. The footer of the console shows "CloudShell", "Feedback", and copyright information for Amazon Web Services, Inc. or its affiliates, along with links for "Privacy", "Terms", and "Cookie preferences".

Now we create item

Services

Search

[Alt+S]

N. Virginia

BansariJiyani

DynamoDB

Tables

user-sort-key

Create item

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](#)

Attributes

Add new attribute

Attribute name	Value	Type
user_id - Partition key	1	String
city - Sort key	surat	String

CancelCreate item

Services

Search

[Alt+S]

N. Virginia

BansariJiyani

DynamoDB

Explore items: user-sort-key

Create item

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](#)

Attributes

Add new attribute

Attribute name	Value	Type
user_id - Partition key	1	String
city - Sort key	ahmdabad	String

CancelCreate item

We can create the same user_id but different city items

The screenshot shows the AWS DynamoDB console interface. On the left, a sidebar lists two tables: 'user' and 'user-sort-key', with 'user-sort-key' selected. The main panel displays the 'user-sort-key' table details. A 'Scan or query items' section shows a successful operation with a message: 'Completed. Read capacity units consumed: 0.5'. Below this, the 'Items returned (2)' section shows a table with two items:

user_id (String)	city (String)
1	ahmdabad
1	surat

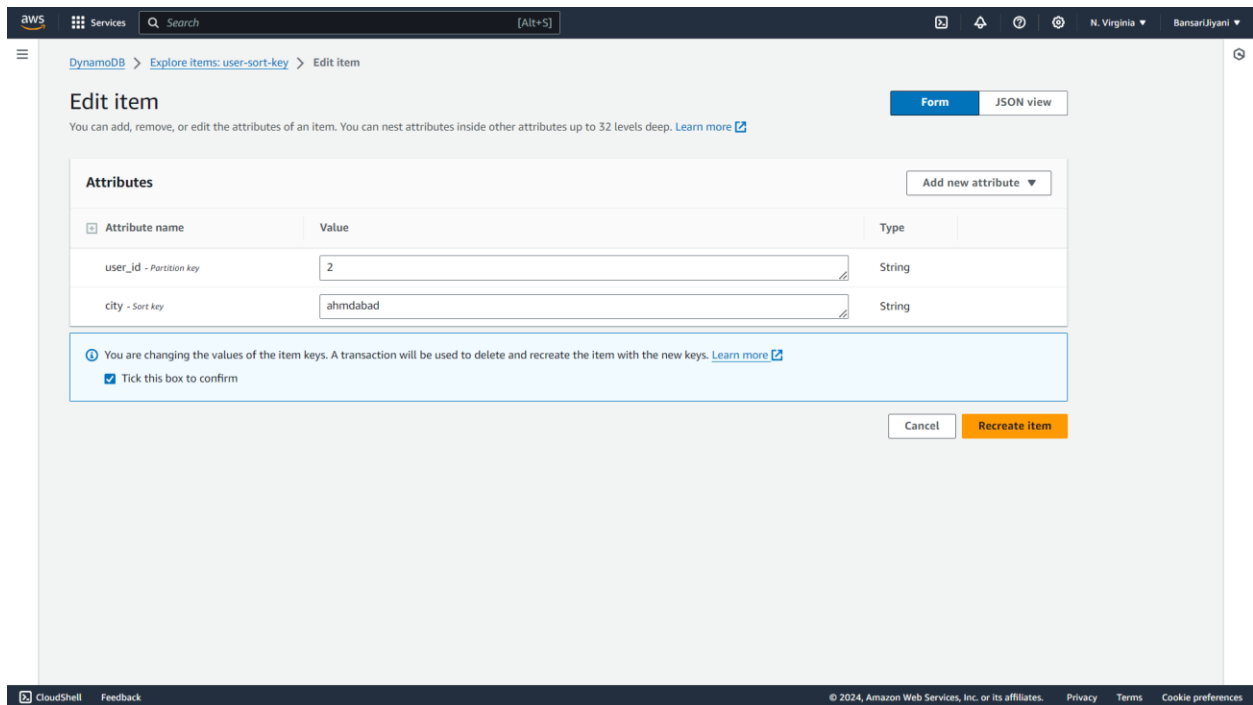
The bottom of the console shows the footer with 'CloudShell', 'Feedback', and copyright information for Amazon Web Services, Inc. or its affiliates.

But we can not create same user_id and same city item

The screenshot shows the 'Create item' form in the AWS DynamoDB console for the 'user-sort-key' table. The form has two tabs: 'Form' and 'JSON view'. The 'Form' tab is active, showing a table with two attributes: 'user_id - Partition key' and 'city - Sort key'. The 'user_id' field contains the value '1' and the 'city' field contains the value 'surat'. Below the form, a red error message states: 'The conditional request failed. An item with the primary key you provided already exists.' The 'Create item' button is disabled, and the 'Cancel' button is visible.

We can also update the item

So first select the item and update the field as you want



And recreate the item

When we recreate the item than the old item was deleted and new item is created

Check the items by run

