

# Module 7: DynamoDB Assignment

AWS Solutions Architect Training



## Problem Statement:

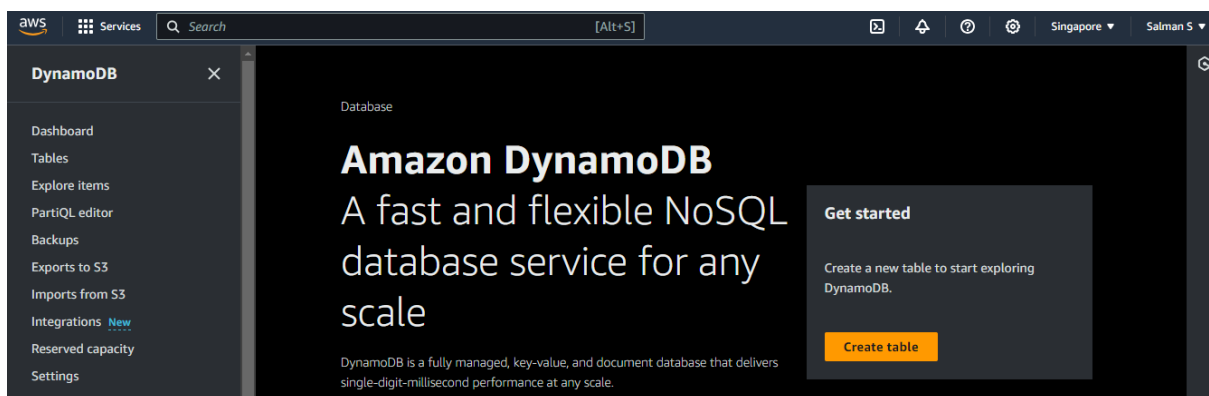
You work for XYZ Corporation. Their application requires a database service that can store data which can be retrieved if required. Implement a suitable service for the same.

## While migrating, you are asked to perform the following tasks:

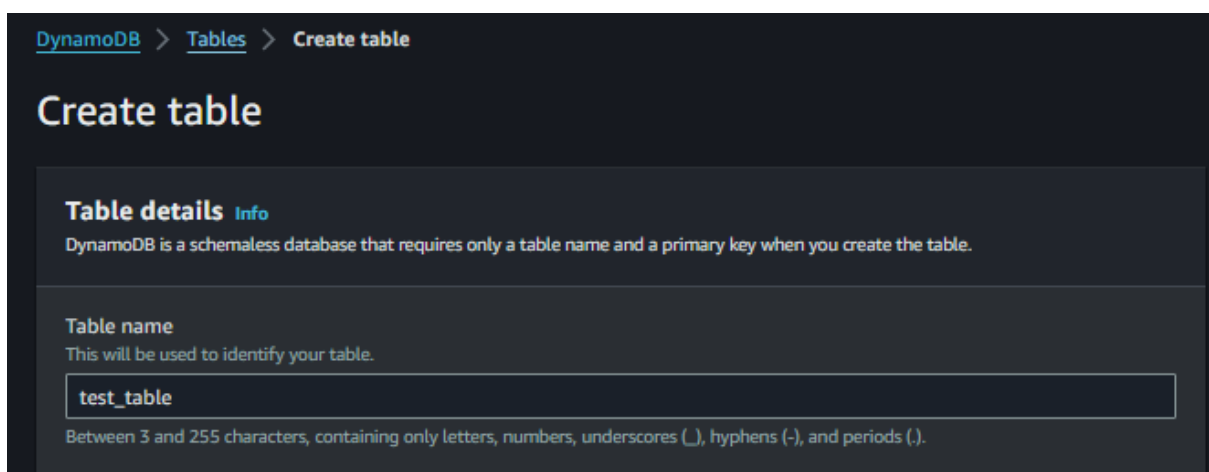
1. Create a DynamoDB table with partition key as ID.
2. Add 5 items to the DynamoDB table.
3. Take backup and delete the table.

## SOL:

- 1) Login to AWS Console and search for DynamoDB and click on create table.



- 2) Name of the table we given is “test\_table”



### 3) Partition key is "ID"

Partition key should be unique and cannot be duplicated but if we need duplicated partition key then we need to use sort key but for this assignment we will not use sort key so our partition key is unique.

**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.

4) Table settings: We are going with Default table settings For this assignment and not with customize settings, we are going with 5RCU (Read capacity unit)& 5WCU (Write capacity unit)

**Table settings**

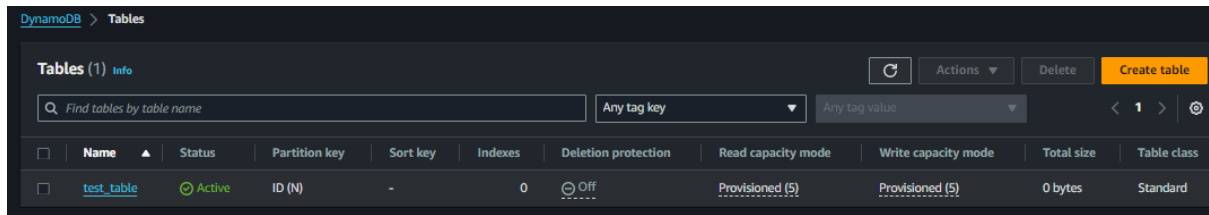
☒ **Default settings**  
The fastest way to create your table. You can modify these settings now or after your table has been created.

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

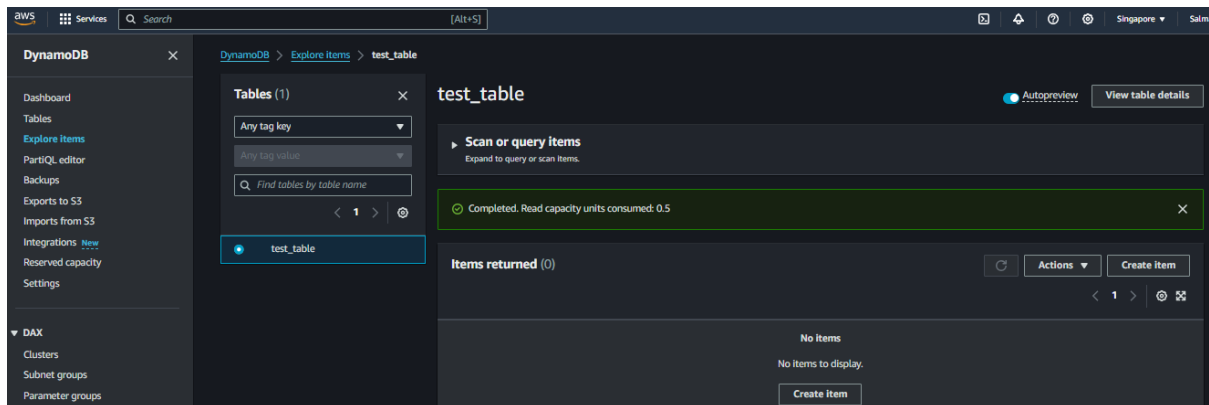
**Default table settings**  
These are the default settings for your new table. You can change some of these settings after creating the table.

Setting	Value	Editable after creation
Table class	DynamoDB Standard	Yes
Capacity mode	Provisioned	Yes
Provisioned read capacity	5 RCU	Yes
Provisioned write capacity	5 WCU	Yes
Auto scaling	On	Yes
Local secondary indexes	-	No
Global secondary indexes	-	Yes
Encryption key management	Owned by Amazon DynamoDB	Yes
Deletion protection	Off	Yes
Resource-based policy	Not active	Yes

5) test\_table created successfully

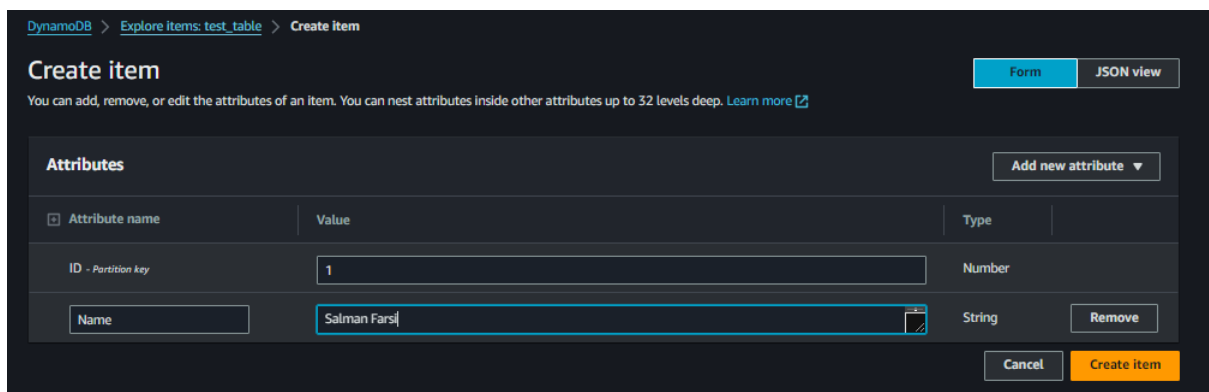


6) now go to explore items and select your database and click on create item.

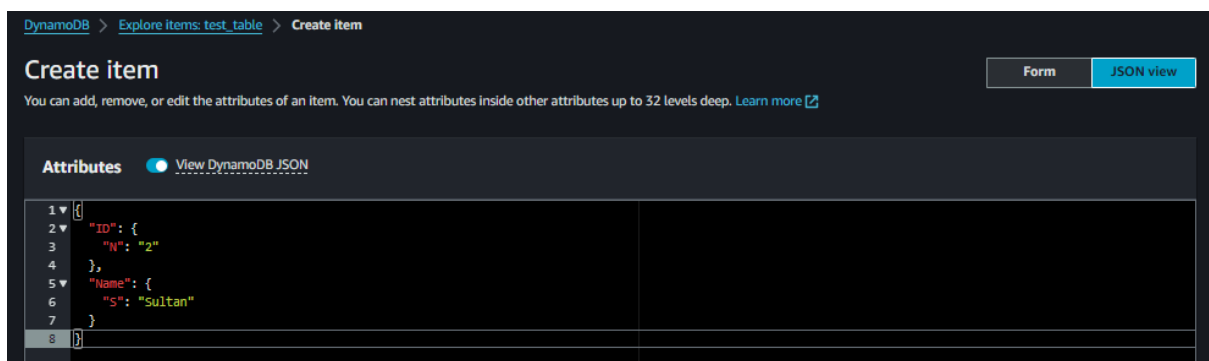


7) Adding Items to DynamoDB table

Mention the unique ID and add new another attribute "String" and updated the name



Added 2<sup>nd</sup> item using DynamoDB JSON View



Added 3<sup>rd</sup> item using Normal JSON View

DynamoDB > Explore items: test\_table > 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](#)

Form JSON view

① You can set JSON as your default JSON view syntax in [Settings](#).

Attributes ☒ View DynamoDB JSON

1	{	
2	"ID": 3,	
3	"Name": "Manoj"	
4	}	

Added 4<sup>th</sup> item using form choose attribute as "Map" and added house number and street address.

DynamoDB > Explore items: test\_table > 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](#)

Form JSON view

Attributes Add new attribute ▼

Attribute name	Value	Type	
ID - Partition key	4	Number	
Address	<span>Insert a field ▼</span>	Map	<span>Remove</span>
House Number	343876	Number	<span>Remove</span>
Street Name	kampahola Nagar	String	<span>Remove</span>

Cancel Create item

Added 5<sup>th</sup> item choose attribute "Number" and only added House Number

DynamoDB > Explore items: test\_table > 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](#)

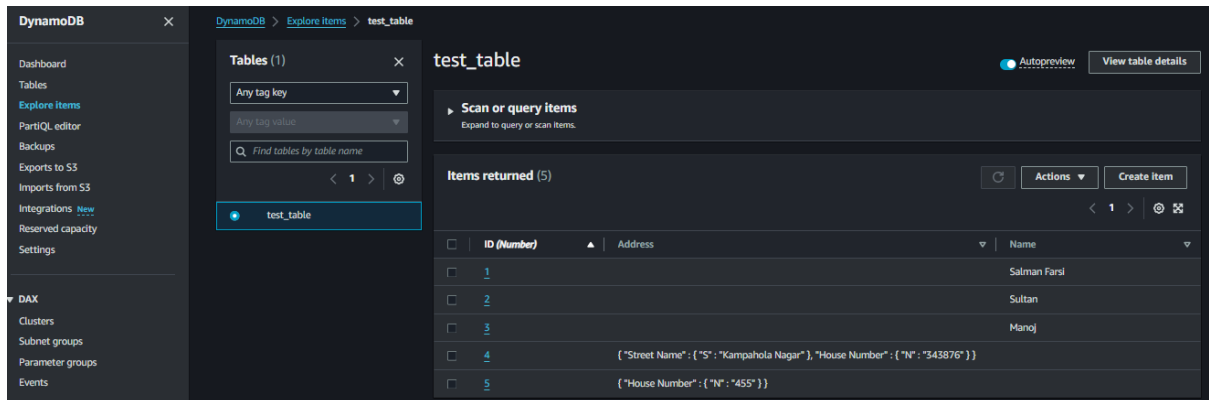
Form JSON view

Attributes Add new attribute ▼

Attribute name	Value	Type	
ID - Partition key	5	Number	
Address	<span>Insert a field ▼</span>	Map	<span>Remove</span>
House Number	455	Number	<span>Remove</span>

Cancel Create item

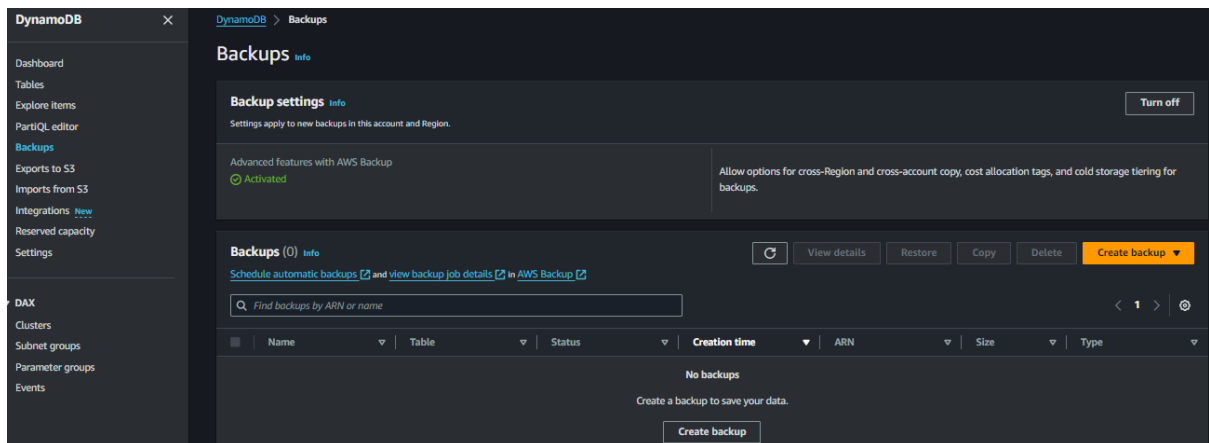
According to below screenshots 3 items contain id number and Name, 4<sup>th</sup> item contact id number and house number and 5<sup>th</sup> item contain the id number, House number & Street address



The screenshot shows the AWS DynamoDB console interface. On the left is a navigation sidebar with options like Dashboard, Tables, Explore Items, PartiQL editor, Backups, Exports to S3, Imports from S3, Integrations, Reserved capacity, Settings, DAX, Clusters, Subnet groups, Parameter groups, and Events. The main area is titled 'test\_table' and shows a list of 5 items. The first three items have 'ID (Number)' and 'Name' attributes. The fourth item has 'ID (Number)' and 'House Number' attributes. The fifth item has 'ID (Number)', 'House Number', and 'Street Name' attributes.

ID (Number)	Name	House Number	Street Name
1	Salman Farsi		
2	Sultan		
3	Manoj		
4		{ "Street Name": { "S": "Kampahola Nagar" }, "House Number": { "N": "543876" } }	
5		{ "House Number": { "N": "455" } }	

8) now click on Backup option to take the backup of your table and click on create backup



The screenshot shows the AWS DynamoDB console 'Backups' section. It displays 'Backup settings' which are 'Activated'. Below this, it shows 'Backups (0)' with a 'Create backup' button. The 'Create backup' button is highlighted in orange.

Backup settings [Info](#) [Turn off](#)

Settings apply to new backups in this account and Region.

Advanced features with AWS Backup [Activated](#)

Allow options for cross-Region and cross-account copy, cost allocation tags, and cold storage tiering for backups.

Backups (0) [Info](#) [View details](#) [Restore](#) [Copy](#) [Delete](#) [Create backup](#)

[Schedule automatic backups](#) and [view backup job details](#) in AWS Backup

[Find backups by ARN or name](#)

Name	Table	Status	Creation time	ARN	Size	Type
No backups						

Create a backup to save your data.

[Create backup](#)

- 9) Select the table which you want to backup and click on create backup so in source table select the “test\_table” and click on create backup

DynamoDB > Backups > Create on-demand backup

## Create on-demand backup

Create a one-time snapshot backup of your table. Schedule automatic backups of your table in [AWS Backup](#)

**Source table** [Info](#)

Source table

**Backup settings** [Info](#)

A backup name will be created automatically.

☒ **Default settings**  
Create a backup that stays in warm storage.

☐ **Customize settings**  
Create a backup that can transition to cold storage and be deleted as it ages.

Backup window	Backup management	Transition to cold storage
Start in 1 hour	AWS Backup	Never
Retention period	Backup vault	IAM Role
Always	Default	AWSBackupDefaultServiceRole

**Tags - optional**

AWS Backup copies tags from the DynamoDB table to the recovery point upon creation. You can specify additional tags to add to the

- 10) Backup will be stored in the AWS Backup service and we can check the details in the backup job details

DynamoDB X

DynamoDB > Backups

## Backups

**Backup settings** [Info](#)

Settings apply to new backups in this account and Region.

Advanced features with AWS Backup  
☒ Activated

Allow options for cross-Region and cross-account copy, cost allocation tags, and cold storage tiering for backups.

**Backups (0)** [Info](#)

Schedule automatic backups [↗](#) and view backup job details [↗](#) in AWS Backup [↗](#)

< 1 > ⚙

11) Backup of our table completed successfully as per below screenshots.

Backup jobs (1) Info

Records of your scheduled or on-demand backups.

Filter backup jobs by job ID, status, resource ID, resource type or message category

1

Backup job ID	Status	Resource name	Message category	Resource ID	Resource type	Creation time	Status
10E9DE7D-6024-1044-4A07-1AA3924ABBE0	Completed	test_table	Success	table/test_table	DynamoDB	April 23, 2024, 12:13:33 (UTC+05:30)	Apr

Backups (1) Info

Schedule automatic backups and view backup job details in AWS Backup

Find backups by ARN or name

1

Name	Table	Status	Creation time	ARN	Size	Type
5351F560-e007-4bc5-...	test_table	Available	April 23, 2024, 12:13:3...	arn:aws:backup:ap-south	0 bytes	AWS_BACKUP

12) now we will going to delete our backup

Continue to AWS Backup

To delete a backup, you must proceed to the AWS Backup vault where it is stored. View and delete it from the backup vault if permissions allow.

CancelContinue to AWS Backup

Backups (1/1) Info

Schedule automatic backups and view backup job details in AWS Backup

Find backups by ARN or name

1

Name	Table	Status	Creation time	ARN	Size	Type
5351F560-e007-4bc5-...	test_table	Available	April 23, 2024, 12:13:3...	arn:aws:backup:ap-south	0 bytes	AWS_BACKUP

Recovery points (1/1) Info

Filter by resource type, recovery point ID, status, resource ID or source account ID

1

Recovery point ID	Status	Resource name	Resource ID	Resource type	Backup type	Creation time
5351F560-e007-4bc5-b82a-322ef18308d1	Completed	test_table	table/test_table	DynamoDB	Backup	April 23, 2024, 12:13:33

Deselect all

Actions

Copy

Edit

Restore

Delete

Deleted Successfully

Backups (0) Info

Schedule automatic backups and view backup job details in AWS Backup

Find backups by ARN or name

1

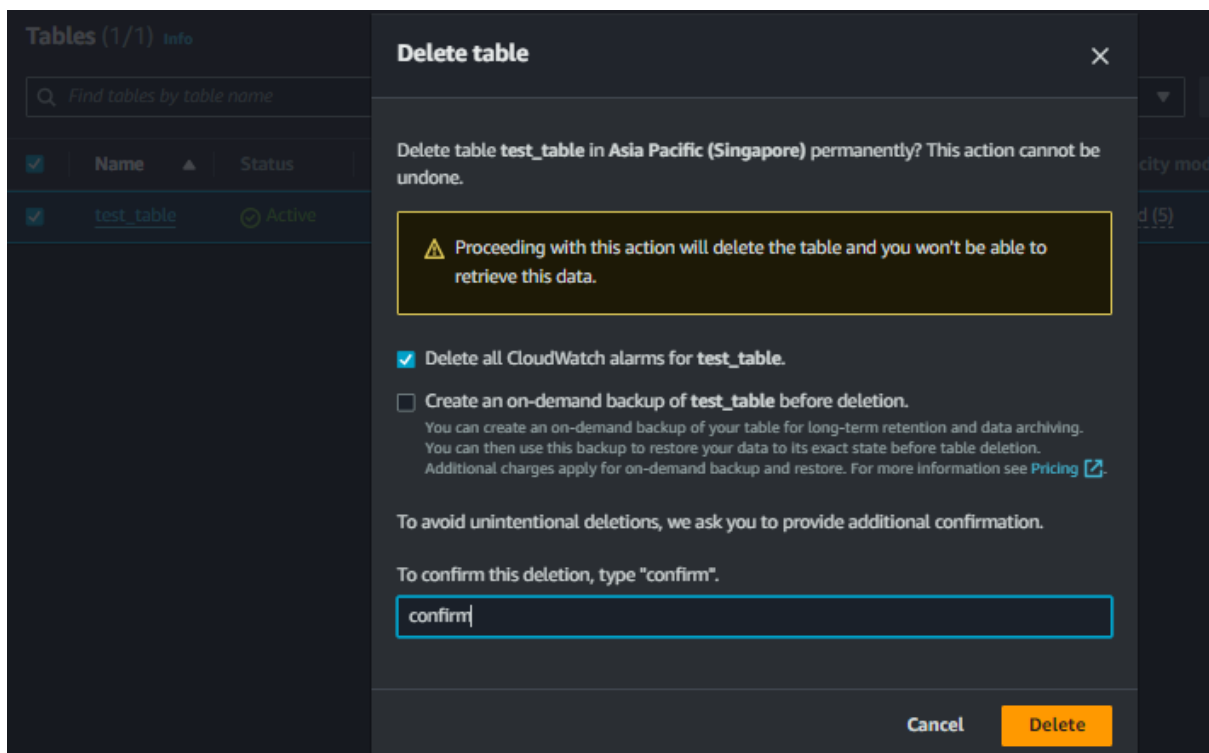
Name	Table	Status	Creation time	ARN	Size	Type
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No backups

Create a backup to save your data.

Create backup

13) we will be going to delete our table



& it will be deleted successfully.

