

DynamoDB

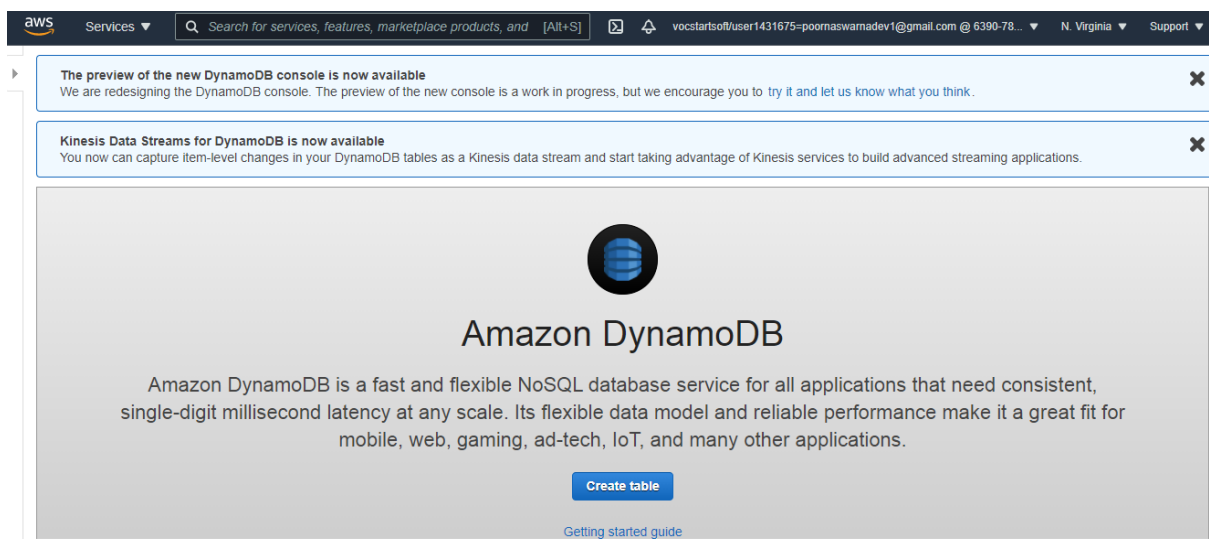
In this example, you create a CollegeStaff table in Amazon DynamoDB.

You will also know to perform insert,update,delete operations on DynamoDB and export the data to S3 in JSON format.

This table, has the following details.

- Partition key – Professor
- Sort key – subjectTitle

Create a DynamoDB database



Enter the table details as follows:

- For the table name, enter **CollegeStaff**
- For the partition key, enter **Professors**.
- Choose **Add sort key**.
- Enter **SubjectTitle** as the sort key.

Kinesis Data Streams for DynamoDB is now available
 You now can capture item-level changes in your DynamoDB tables as a Kinesis data stream and start taking advantage of Kinesis services to build advanced streaming applications.

two attributes that uniquely identify items, partition the data, and sort data within each partition.

Table name* ⓘ

Primary key* Partition key

String ⓘ

☒ Add sort key

String ⓘ

Table settings

Default settings provide the fastest way to get started with your table. You can modify these default settings now or after your table has been created.

☒ Use default settings

CollegeStaff Close

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Overview

Items

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Capacity

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🔄 Table is being created

Recent alerts

No CloudWatch alarms have been triggered for this table.

Kinesis data stream details

Use Amazon Kinesis Data Streams for DynamoDB to capture item-level changes in your table as a Kinesis data stream. [Learn more](#)

Stream enabled -

Stream name -

Manage streaming to Kinesis

Write Data to the Table CollegeStaff

1. Open the DynamoDB console at <https://console.aws.amazon.com/dynamodb/>.
2. In the navigation pane on the left side of the console, choose **Tables**.
3. In the table list, choose the **CollegeStaff** table.
4. Choose the **Items** tab for the **CollegeStaff** table.
5. On the **Items** tab, choose **Create item**.

Create table
Delete table

🔍 Filter by table name

Choose a table ... ▾

Actions ▾

Name
<div style="display: flex; align-items: center;"> <div style="width: 10px; height: 10px; border-radius: 50%; background-color: #0070C0; margin-right: 5px;"></div> CollegeStaff </div>

CollegeStaff Close

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Overview

Items

Metrics

Alarms

Capacity

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Global Tables

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Recent alerts

No CloudWatch alarms have been triggered for this table.

Kinesis data stream details

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Stream enabled No

Stream name -

Manage streaming to Kinesis

DynamoDB stream details

Create tableDelete table

Filter by table name

Choose a table ...

Actions

Name

CollegeStaff

CollegeStaffClose

OverviewItemsMetricsAlarmsCapacityIndexesGlobal TablesBackupsMore

Create itemActions

Scan: [Table] CollegeStaff: Professor, SubjectTitle

Viewing 0 to 0 items

Scan

[Table] CollegeStaff: Professor, SubjectTitle

Add filter

Start search

Professor

SubjectTitle

Create item

Tree

Item {2}

Professor String: VALUE

SubjectTitle String: VALUE

CancelSave

Create item

Tree

Item {2}

Professor String: VALUE

Insert

String

Binary

Number

StringSet

NumberSet

BinarySet

Map

List

Boolean

Null

Remove

CancelSave

Create item



Tree ▾

▼ Item {4}

- ⊕ ID String:
- ⊕ Professor String: Dr.Ram
- ⊕ SubjectTitle String: Anatomy
- ⊕ InterstedSubject String: GeneralMedicine

Cancel

Save

CollegeStaff [Close](#)

Overview

Items

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Create item

Actions ▾



Scan: [Table] CollegeStaff: Professor, SubjectTitle ^

Viewing 1 to 1 items

Scan ▾

[Table] CollegeStaff: Professor, SubjectTitle ▾ ^

⊕ Add filter

Start search

<input type="checkbox"/>	Professor ⓘ ^	SubjectTitle ▾	ID ▾
<input type="checkbox"/>	Dr.Ram	Anatomy	1

Create item



Tree ▾

▼ Item {4}

- ⊕ Id String: 2
- ⊕ Professor String: Dr.Varsha
- ⊕ SubjectTitle String: Physiology
- ⊕ Year String:

Cancel

Save

Overview Items Metrics Alarms Capacity Indexes Global Tables Backups More ▾

Create item Actions ▾

Scan: [Table] CollegeStaff: Professor, SubjectTitle ^ Viewing 1 to 2 items

Scan ▾ [Table] CollegeStaff: Professor, SubjectTitle ▾ ^

+ Add filter

Start search

<input type="checkbox"/>	Professor ⓘ ^	SubjectTitle ▾	ID ▾	Id ▾	Year ▾
<input type="checkbox"/>	Dr.Ram	Anatomy	1		
<input type="checkbox"/>	Dr.Varsha	Physiology		2	2004

Create item ×

Tree ▾

Item {5}

- ID String : 3
- Professor String : Dr.Varma
- SubjectTitle String : Pathology
- Address List [3]
 - 0 String : # 8, 19th cross
 - 1 String : Malleswaram
 - 2 String : Bangalore
- WorkingDays StringSet [2]
 - 0 : Monday
 - 1 : Tuesday

Cancel Save

Read Data from DynamoDB

1. In the navigation pane on the left side of the console, choose **Tables**.
2. Choose the **CollegeStaff** table from the table list.
3. Choose the **Items** tab for the **CollegeStaff** table.
4. On the **Items** tab, view the list of items stored in the table, sorted by “Professor” and “SubjectTitle”

Create item Actions ▾

Scan: [Table] CollegeStaff: Professor, SubjectTitle ▾ Viewing 1 to 3 items

<input type="checkbox"/>	Professor ▾	SubjectTitle ⓘ ▾	ID ▾	Id ▾	Year ▾	Address
<input type="checkbox"/>	Dr.Varsha	Physiology		2	2004	
<input type="checkbox"/>	Dr.Varma	Pathology	3			[{ "S" : "# 8, 19th cross" }, { "S" : "Malleswaram" }, { "S" : "Bangalore" }]
<input type="checkbox"/>	Dr.Ram	Anatomy	1			

Step 4: Update Data

1. In the navigation pane on the left side of the console, choose **Tables**.
2. Choose the **CollegeStaff** table from the table list.
3. Choose the **Items** tab for the **CollegeStaff** table.
4. Choose the item whose **Professor** value is **Dr.Ram** and **SubjectTitle** value is **"Anatomy"**
5. Update the **InterestedSubject** value to **Modern Anatomy**, and then choose **Save**.

The screenshot displays the AWS IAM console interface. At the top, there's a search bar with a dropdown menu set to 'Scan' and a search filter '[Table] CollegeStaff: Professor, SubjectTitle'. Below this is a table with columns: Professor, SubjectTitle, ID, Id, Year, Address, and Working. The table contains three rows: Dr.Varsha (Physiology, ID 2, Year 2004), Dr.Varma (Pathology, ID 3), and Dr.Ram (Anatomy, ID 1). The Dr.Ram row is circled in red. Below the table, there's an 'Edit item' modal window. The modal shows a tree view of the item's properties: ID (String: 1), InterestedSubject (String: Modern Anatomy), Professor (String: Dr.Ram), and SubjectTitle (String: Anatomy). The 'InterestedSubject' field is highlighted in yellow. At the bottom right of the modal, there are 'Cancel' and 'Save' buttons.

Professor	SubjectTitle	ID	Id	Year	Address	Working
Dr.Varsha	Physiology	2		2004		
Dr.Varma	Pathology	3			[{ "S": "# 8, ...	{ "Monda
Dr.Ram	Anatomy	1				

Edit item

Tree ▾

▼ Item {4}

- ⊕ ID String : 1
- ⊕ InterestedSubject String : Modern Anatomy
- ⊕ Professor String : Dr.Ram
- ⊕ SubjectTitle String : Anatomy

Cancel Save

Step 5: Query Data

1. In the navigation pane on the left side of the console, choose **Tables**.
2. Choose the **CollegeStaff** table from the table list.
3. Choose the **Items** tab for the **CollegeStaff** table.
4. In the drop-down list, choose **Query**.

CollegeStaff [Close](#)

Overview **Items** Metrics Alarms Capacity Indexes Global Tables Backups Contributor Insights Triggers Access control Tags

Create item Actions

Scan: [Table] CollegeStaff: Professor, SubjectTitle ^ Viewing 1 to 3 items

Query [Table] CollegeStaff: Professor, SubjectTitle ^

Partition key Professor String = Dr.Varma

Sort key SubjectTitle String = Pathology

+ Add filter

Sort ☒ Ascending ☐ Descending

<input type="checkbox"/>	Professor	SubjectTitle	ID	Id	Year	Address
<input type="checkbox"/>	Dr.Varsha	Physiology	2		2004	
<input type="checkbox"/>	Dr.Varma	Pathology	3			[{"S": "# 8, 19th cross"}, {"S": "Malleswaram"}, {"S": "Bangalore"}]

Lets visit partiQ editor for DynamoDB

DynamoDB

Dashboard

Tables

Backups

Reserved capacity

Exports to S3

PartiQL editor

Preferences

...

Create table Delete table

Filter by table name X Choose a table group Actions 1 to 1 of 1 Tables

Name	Status	Partition key	Sort key	Indexes	Total read capacity
CollegeStaff	Active	Professor (String)	SubjectTitle (String)	0	5

ENABLE (PITR)- Point-in-Time Recovery.

PartiQL editor

Operations performed using the PartiQL editor may incur charges. [Learn more](#)

Resources

Find tables

Tables (1) < 1 >


CollegeStaff

Query 1 +

```
1 select * from CollegeStaff;
```

RUN and check the output

Table view | **JSON view**

 **Completed**
started on 5/28/2021, 5:14:03 PM
lapsed time 405ms

Items returned (3) [Download results to CSV](#)

< 1 > ⚙

SubjectT... ▾	Id ▾	Year ▾	Professor ▾	Address ▾	ID
Physiology	2	2004	Dr.Varsha		
Pathology			Dr.Varma	[{"S": "# 8,...	3
Anatomy			Dr.Ram		1

Click on JSON view to see the JSON form of output

Table view	JSON view
<pre> "Items" : [3 items 0 : { 4 items "SubjectTitle" : { 1 item "S" : "Physiology" } "Id" : { 1 item "S" : "2" } "Year" : { 1 item "S" : "2004" } "Professor" : { 1 item "S" : "Dr.Varsha" } } 1 : { 5 items "Address" : { 1 item "L" : [3 items 0 : { 1 item "S" : "# 8, 19th cross" }] } }] </pre>	

Export the dataoutput to S3

DynamoDB

Dashboard

Tables

Items

New

PartiQL editor

New

Backups

Exports to S3

New

Reserved capacity

DAX

Revert to the current console

```
      "S" : "# 8, 19th cross"
    }
    1 : { 1 item
      "S" : "Malleswaram"
    }
    2 : { 1 item
      "S" : "Bangalore"
    }
  ]
}
"SubjectTitle" : { 1 item
  "S" : "Pathology"
}
"ID" : { 1 item
  "S" : "3"
}
"Professor" : { 1 item
  "S" : "Dr.Varma"
}
"WorkingDays" : { 1 item
  "SS" : [ 2 items
    0 : "Monday"
    1 : "Tuesday"
  ]
}
```

DynamoDB

Dashboard

Tables

Items [New](#)

PartiQL editor [New](#)

Backups

Exports to S3 [New](#)

Reserved capacity

DAX

Revert to the current console

DynamoDB > Exports to S3

Exports to S3 (1) [Info](#)

Showing all export jobs from the last 90 days.

< 1 > ⚙

Export ARN	Table name	Destination S3 bucket	Status	Start time (UTC)
arn:aws:dynamodb:us-east-1:639078425870:table/CollegeStaff/export/01622202130361-d2754272	CollegeStaff	s3://elasticbeanstalk-us-east-1-639078425870	Completed	May 17:00

DynamoDB > Exports to S3 > Export table to Amazon S3

Export table to Amazon S3 [Info](#)

Export all the data in a table to an S3 bucket. The bucket can be in any AWS Region and owned by any account with write permissions. Extra charges may apply. [Info](#)

Export details

Source table

Destination S3 bucket

View [↗](#)

Browse S3

Format: s3://bucket/prefix

S3 bucket owner

☒ This AWS account (639078425870)

☐ A different AWS account

DynamoDB > Exports to S3

Exports to S3 (2) [Info](#)






Showing all export jobs from the last 90 days.

< 1 > ⚙

Export ARN	Table name	Destination S3 bucket	Status	Start time (UTC)
<input type="radio"/> arn:aws:dynamodb:us-east-1:639078425870:table/CollegeStaff/export/01622202723496-8022f15d	CollegeStaff	s3://dynamodbdata1swa	Exporting	

Wait till the status changes to completed.

Select uploaded bucket from S3

Buckets (2)   Copy ARN  Empty  Delete  Create bucket

Buckets are containers for data stored in S3. [Learn more](#)









	Name ▲	AWS Region ▼	Access ▼	Creation date ▼
<input type="radio"/>	dynamodbdata1swa	US East (N. Virginia) us-east-1	Bucket and objects not public	May 28, 2021, 17:20:07 (UTC+05:30)
<input type="radio"/>	elasticbeanstalk-us-east-1-639078425870	US East (N. Virginia) us-east-1	Objects can be public	May 27, 2021, 13:26:41 (UTC+05:30)


dynamodbdata1swa





Objects | Properties | Permissions | Metrics | Management | Access Points

Objects (1)

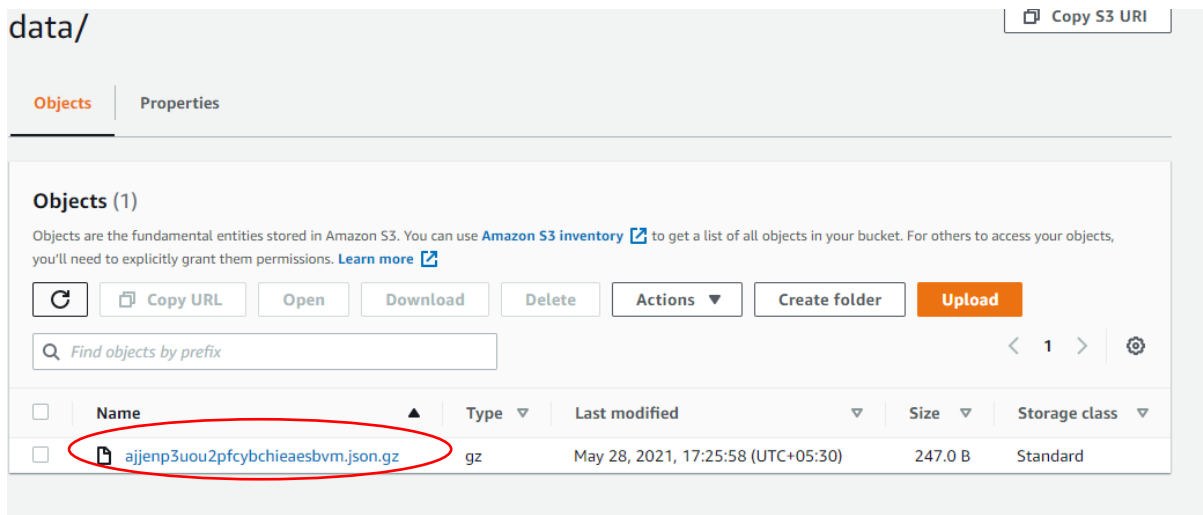
Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your object you'll need to explicitly grant them permissions. [Learn more](#)

  Copy URL  Open  Download  Delete  Actions  Create folder  Upload

<input type="checkbox"/>	Name ▲	Type ▼	Last modified ▼	Size ▼	Storage class ▼
<input type="checkbox"/>	 AWSDynamoDB/	Folder	-	-	-

<input type="checkbox"/>	Name ▲	Type ▼	Last modified ▼	Size ▼	Storage class ▼
<input type="checkbox"/>	 _started	-	May 28, 2021, 17:22:10 (UTC+05:30)	0 B	Standard
<input type="checkbox"/>	 data/	Folder	-	-	-
<input type="checkbox"/>	 manifest-files.json	json	May 28, 2021, 17:26:10 (UTC+05:30)	195.0 B	Standard
<input type="checkbox"/>	 manifest-files.md5	md5	May 28, 2021, 17:26:11 (UTC+05:30)	24.0 B	Standard

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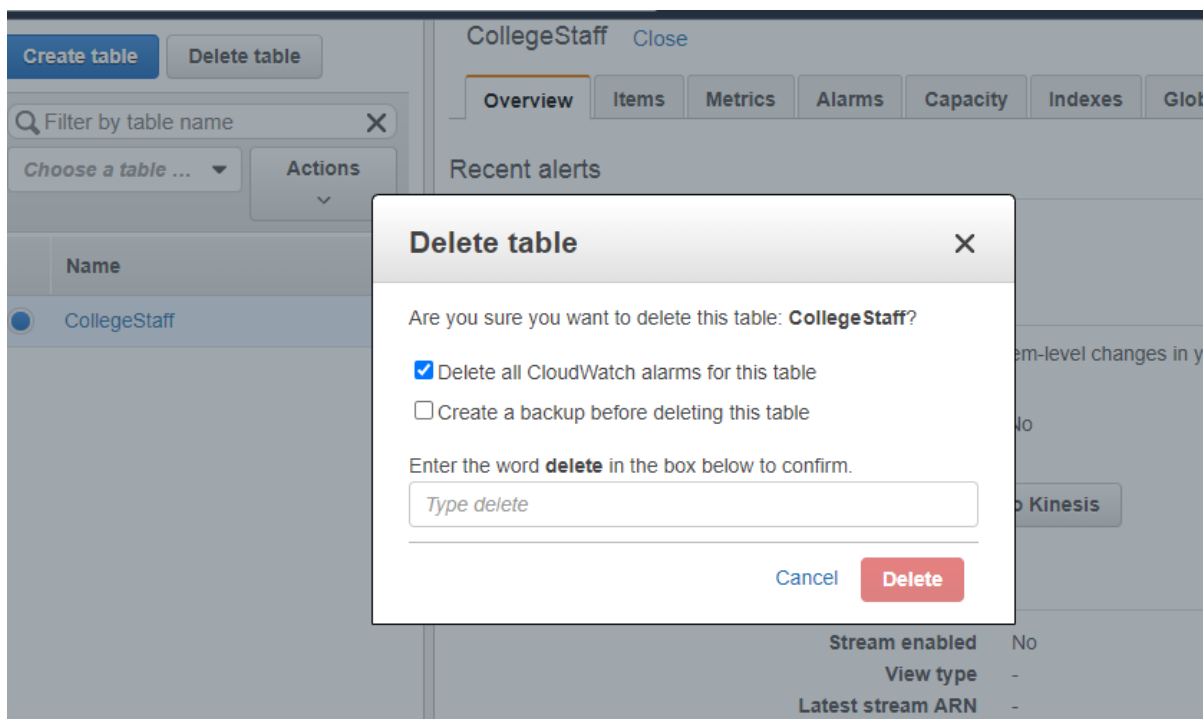


Go Inside all the sub folders and See the file is uploaded in JSON format in S3.

Clean-Up

Goto DynamoDB Table View

Select CollegeStaff and delete the table.



Empty and Delete S3 Bucket.

Happy Learning!!!!