

DynamoDB > Tables > acmeOrders

Tables (1)

Tag

Any table tag

Find tables by name

< 1 > ⚙

acmeOrders

acmeOrders

Actions View items

< Overview Indexes Monitor Global tables Backups Exports and streams Ac >

General information

Partition key CustomerID (Number)	Sort key OrderID (String)	Capacity mode Provisioned	Table status Active No active alarms
Indexes 0 globals, 0 locals	DynamoDB stream Disabled	Point-in-time recovery (PITR) Disabled	Time to Live (TTL) Info Disabled
Replication Regions 0 Regions	Encryption Owned by Amazon	Date created October 29, 2021, 19:00:59 (UTC-05:00)	

Amazon Resource Name (ARN)
arn:aws:dynamodb:us-east-1:368396404142:table/acmeOrders


- Lambda with Kinesis trigger

Lambda > Functions > ProcessOrders


ProcessOrders


Throttle Copy ARN Actions

▼ Function overview Info

 Kinesis

+ Add trigger

 ProcessOrders

 Layers (0)

+ Add destination


Description

-

Last modified

15 minutes ago

Function ARN

 arn:aws:lambda:us-east-1:368396404142:function:ProcessOrders


- AWS Kinesis Delivery Stream

Amazon Kinesis > Delivery streams > purchaseLogs

purchaseLogs

Info Delete delivery stream

Delivery stream details


Status	Destination	Data transformation	Creation time
Active	Amazon S3	Disabled	October 29, 2021, 18:39 GMT-5
Source	ARN	Dynamic partitioning	
Direct PUT	 arn:aws:firehose:us-east-1:368396404142:deliverystream/purchaseLogs	Disabled	

- AWS Kinesis Data Stream

acmecoreOrders

Info Delete

Data stream summary

Status	Data retention period	ARN	Creation time
Active	1 day	 arn:aws:kinesis:us-east-1:368396404142:stream/acmecoreOrders	October 29, 2021, 18:59 GMT-5

Applications Monitoring Configuration Enhanced fan-out (0)

- S3 Bucket

Amazon S3 > st1612.orderlogs.lab05








st1612.orderlogs.lab05

Info


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 objects, you'll need to explicitly grant them permissions. [Learn more](#)

  Copy S3 URI  Copy URL  Download  Open  Delete Actions Create folder  Upload

☐

Name	Type	Last modified	Size	Storage class
 2021/	Folder	-	-	-

Kinesis Configuration

Local

- Kinesis Agent

```
[root@ip-172-31-83-3 aws-kinesis]# sudo systemctl status aws-kinesis-agent.service
● aws-kinesis-agent.service - LSB: Daemon for Amazon Kinesis Agent.
   Loaded: loaded (/etc/rc.d/init.d/aws-kinesis-agent; bad; vendor preset: disabled)
   Active: active (running) since Sat 2021-10-30 00:02:50 UTC; 16min ago
     Docs: man:systemd-sysv-generator(8)
  Process: 8385 ExecStop=/etc/rc.d/init.d/aws-kinesis-agent stop (code=exited, status=0/SUCCESS)
  Process: 8432 ExecStart=/etc/rc.d/init.d/aws-kinesis-agent start (code=exited, status=0/SUCCESS)
    CGroup: /system.slice/aws-kinesis-agent.service
            └─8439 runuser aws-kinesis-agent-user -s /bin/sh -c /usr/bin/start-aws-kinesis-agent
            └─8441 /usr/lib/jvm/jre/bin/java -server -Xms32m -Xmx512m -Dlog4j.configurationFile=file:///etc/aws-kinesis/log4j.xml -XX:OnOutOf...

Oct 30 00:02:48 ip-172-31-83-3.ec2.internal systemd[1]: Stopped LSB: Daemon for Amazon Kinesis Agent..
Oct 30 00:02:48 ip-172-31-83-3.ec2.internal systemd[1]: Starting LSB: Daemon for Amazon Kinesis Agent....
Oct 30 00:02:48 ip-172-31-83-3.ec2.internal runuser[8439]: pam_unix(runuser:session): session opened for user aws-kinesis-agent-user by (uid=0)
Oct 30 00:02:50 ip-172-31-83-3.ec2.internal aws-kinesis-agent[8432]: [34B blob data]
Oct 30 00:02:50 ip-172-31-83-3.ec2.internal systemd[1]: Started LSB: Daemon for Amazon Kinesis Agent..
Hint: Some lines were ellipsized, use -l to show in full.
```

- logs:

```
[ec2-user@ip-172-31-83-3 OrderHistory]$ tail -f /var/log/aws-kinesis-agent/aws-kinesis-agent.log
2021-10-30 00:31:20.008+0000 (FileTailer[fh:purchaseLogs:/var/log/acmecore/*.log].MetricsEmitter RUNNING) com.amazon.kinesis.streaming.agent.tai
ling.FileTailer [INFO] FileTailer[fh:purchaseLogs:/var/log/acmecore/*.log]: Tailer Progress: Tailer has parsed 1140 records (97985 bytes), transf
ormed 0 records, skipped 0 records, and has successfully sent 1140 records to destination.
2021-10-30 00:31:20.017+0000 (Agent.MetricsEmitter RUNNING) com.amazon.kinesis.streaming.agent.Agent [INFO] Agent: Progress: 2280 records pars
ed (281471 bytes), and 2280 records sent successfully to destinations. Uptime: 1710080ms
2021-10-30 00:31:38.735+0000 (FileTailer[kinesis:acmecoreOrders:/var/log/acmecore/*.log]) com.amazon.kinesis.streaming.agent.tailing.KinesisParser
 [INFO] KinesisParser[kinesis:acmecoreOrders:/var/log/acmecore/*.log]: Continuing to parse /var/log/acmecore/20211030-003138.log.
2021-10-30 00:31:38.735+0000 (FileTailer[fh:purchaseLogs:/var/log/acmecore/*.log]) com.amazon.kinesis.streaming.agent.tailing.FirehoseParser [IN
FO] FirehoseParser[fh:purchaseLogs:/var/log/acmecore/*.log]: Continuing to parse /var/log/acmecore/20211030-003138.log.
2021-10-30 00:31:49.992+0000 (FileTailer[kinesis:acmecoreOrders:/var/log/acmecore/*.log].MetricsEmitter RUNNING) com.amazon.kinesis.streaming agen
t.tailing.FileTailer [INFO] FileTailer[kinesis:acmecoreOrders:/var/log/acmecore/*.log]: Tailer Progress: Tailer has parsed 1240 records (192122 byt
es), transformed 1240 records, skipped 0 records, and has successfully sent 1140 records to destination.
2021-10-30 00:31:50.008+0000 (FileTailer[fh:purchaseLogs:/var/log/acmecore/*.log].MetricsEmitter RUNNING) com.amazon.kinesis.streaming.agent.tai
ling.FileTailer [INFO] FileTailer[fh:purchaseLogs:/var/log/acmecore/*.log]: Tailer Progress: Tailer has parsed 1240 records (106621 bytes), trans
formed 0 records, skipped 0 records, and has successfully sent 1140 records to destination.
2021-10-30 00:31:50.017+0000 (Agent.MetricsEmitter RUNNING) com.amazon.kinesis.streaming.agent.Agent [INFO] Agent: Progress: 2480 records pars
ed (298743 bytes), and 2280 records sent successfully to destinations. Uptime: 1740080ms
2021-10-30 00:32:19.992+0000 (FileTailer[kinesis:acmecoreOrders:/var/log/acmecore/*.log].MetricsEmitter RUNNING) com.amazon.kinesis.streaming agen
t.tailing.FileTailer [INFO] FileTailer[kinesis:acmecoreOrders:/var/log/acmecore/*.log]: Tailer Progress: Tailer has parsed 1240 records (192122 byt
es), transformed 1240 records, skipped 0 records, and has successfully sent 1140 records to destination.
2021-10-30 00:32:20.008+0000 (FileTailer[fh:purchaseLogs:/var/log/acmecore/*.log].MetricsEmitter RUNNING) com.amazon.kinesis.streaming.agent.tai
ling.FileTailer [INFO] FileTailer[fh:purchaseLogs:/var/log/acmecore/*.log]: Tailer Progress: Tailer has parsed 1240 records (106621 bytes), trans
formed 0 records, skipped 0 records, and has successfully sent 1140 records to destination.
2021-10-30 00:32:20.017+0000 (Agent.MetricsEmitter RUNNING) com.amazon.kinesis.streaming.agent.Agent [INFO] Agent: Progress: 2480 records pars
ed (298743 bytes), and 2280 records sent successfully to destinations. Uptime: 1770080ms
```

- Local Consumer to DynamoDB

```
{'SequenceNumber': '49623441745870249525194726672127523070688787654946848770', 'ApproximateArrivalTimestamp': datetime.datetime(2021, 10, 30, 0
, 9, 54, 85000, tzinfo=tzlocal()), 'Data': b'{"InvoiceNo": "552045", "StockCode": "21843", "Description": "RED RETROSPOT CAKE STAND", "Quantity": "2",
"InvoiceDate": "5/06/11 9:22", "UnitPrice": "10.95", "Customer": "18241", "Country": "United Kingdom\\r\\n", "PartitionKey": "296315.2468650794"}'
{'SequenceNumber': '49623441745870249525194726672128731996508402284121554946', 'ApproximateArrivalTimestamp': datetime.datetime(2021, 10, 30, 0
, 9, 54, 85000, tzinfo=tzlocal()), 'Data': b'{"InvoiceNo": "552045", "StockCode": "21080", "Description": "SET/20 RED RETROSPOT PAPER NAPKINS ", "Qua
ntity": "12", "InvoiceDate": "5/06/11 9:22", "UnitPrice": "0.85", "Customer": "18241", "Country": "United Kingdom\\r\\n", "PartitionKey": "64746.175126
47862"}'
{'SequenceNumber': '49623441745870249525194726672129940922328016913296261122', 'ApproximateArrivalTimestamp': datetime.datetime(2021, 10, 30, 0
, 9, 54, 85000, tzinfo=tzlocal()), 'Data': b'{"InvoiceNo": "552045", "StockCode": "20685", "Description": "DOORMAT RED RETROSPOT", "Quantity": "2", "In
voiceDate": "5/06/11 9:22", "UnitPrice": "7.95", "Customer": "18241", "Country": "United Kingdom\\r\\n", "PartitionKey": "140143.38331522958"}'
{'SequenceNumber': '49623441745870249525194726672131149848147631542470967298', 'ApproximateArrivalTimestamp': datetime.datetime(2021, 10, 30, 0
, 9, 54, 85000, tzinfo=tzlocal()), 'Data': b'{"InvoiceNo": "552045", "StockCode": "850998", "Description": "JUMBO BAG RED RETROSPOT", "Quantity": "10",
"InvoiceDate": "5/06/11 9:22", "UnitPrice": "2.08", "Customer": "18241", "Country": "United Kingdom\\r\\n", "PartitionKey": "409596.1256747422"}'
{'SequenceNumber': '49623441745870249525194726672132358773967246171645673474', 'ApproximateArrivalTimestamp': datetime.datetime(2021, 10, 30, 0
, 9, 54, 85000, tzinfo=tzlocal()), 'Data': b'{"InvoiceNo": "552045", "StockCode": "22077", "Description": "6 RIBBONS RUSTIC CHARM", "Quantity": "12", "
InvoiceDate": "5/06/11 9:22", "UnitPrice": "1.65", "Customer": "18241", "Country": "United Kingdom\\r\\n", "PartitionKey": "611264.7221822742"}'
{'SequenceNumber': '49623441745870249525194726672133567699786860800820379650', 'ApproximateArrivalTimestamp': datetime.datetime(2021, 10, 30, 0
, 9, 54, 85000, tzinfo=tzlocal()), 'Data': b'{"InvoiceNo": "552045", "StockCode": "21980", "Description": "PACK OF 12 RED RETROSPOT TISSUES ", "Quant
ity": "24", "InvoiceDate": "5/06/11 9:22", "UnitPrice": "0.29", "Customer": "18241", "Country": "United Kingdom\\r\\n", "PartitionKey": "436710.6976967
9627"}'
{'SequenceNumber': '49623441745870249525194726672134776625606475429995085826', 'ApproximateArrivalTimestamp': datetime.datetime(2021, 10, 30, 0
, 9, 54, 85000, tzinfo=tzlocal()), 'Data': b'{"InvoiceNo": "552045", "StockCode": "21912", "Description": "VINTAGE SNAKES & LADDERS", "Quantity": "4", "In
voiceDate": "5/06/11 9:22", "UnitPrice": "3.75", "Customer": "18241", "Country": "United Kingdom\\r\\n", "PartitionKey": "19583.42124674728"}'
{'SequenceNumber': '49623441745870249525194726672135985551426090059169792002', 'ApproximateArrivalTimestamp': datetime.datetime(2021, 10, 30, 0
, 9, 54, 85000, tzinfo=tzlocal()), 'Data': b'{"InvoiceNo": "552045", "StockCode": "21746", "Description": "SMALL RED RETROSPOT WINDMILL", "Quantity":
"12", "InvoiceDate": "5/06/11 9:22", "UnitPrice": "1.25", "Customer": "18241", "Country": "United Kingdom\\r\\n", "PartitionKey": "420669.6502809717"}'
{'SequenceNumber': '49623441745870249525194726672137194477245704688344498178', 'ApproximateArrivalTimestamp': datetime.datetime(2021, 10, 30, 0
, 9, 54, 85000, tzinfo=tzlocal()), 'Data': b'{"InvoiceNo": "552045", "StockCode": "21918", "Description": "SET 12 KIDS COLOUR CHALK STICKS", "Quantit
y": "24", "InvoiceDate": "5/06/11 9:22", "UnitPrice": "0.42", "Customer": "18241", "Country": "United Kingdom\\r\\n", "PartitionKey": "675305.224415684"}'
{'SequenceNumber': '4962344174587024952519472667213840340365319317519204354', 'ApproximateArrivalTimestamp': datetime.datetime(2021, 10, 30, 0
, 9, 54, 86000, tzinfo=tzlocal()), 'Data': b'{"InvoiceNo": "552045", "StockCode": "22550", "Description": "HOLIDAY FUN LUDO", "Quantity": "4", "Invoice
Date": "5/06/11 9:22", "UnitPrice": "3.75", "Customer": "18241", "Country": "United Kingdom\\r\\n", "PartitionKey": "681304.0329097126"}'
{'SequenceNumber': '49623441745870249525194726672139612328884933946693910530', 'ApproximateArrivalTimestamp': datetime.datetime(2021, 10, 30, 0
, 9, 54, 86000, tzinfo=tzlocal()), 'Data': b'{"InvoiceNo": "552045", "StockCode": "22139", "Description": "RETROSPOT TEA SET CERAMIC 11 PC ", "Quantit
y": "3", "InvoiceDate": "5/06/11 9:22", "UnitPrice": "4.95", "Customer": "18241", "Country": "United Kingdom\\r\\n", "PartitionKey": '859629.027101869
6'}'
{'SequenceNumber': '49623441745870249525194726672140821254704548575868616706', 'ApproximateArrivalTimestamp': datetime.datetime(2021, 10, 30, 0
, 9, 54, 86000, tzinfo=tzlocal()), 'Data': b'{"InvoiceNo": "552045", "StockCode": "850148", "Description": "RED RETROSPOT UMBRELLA", "Quantity": "3", "
InvoiceDate": "5/06/11 9:22", "UnitPrice": "5.95", "Customer": "18241", "Country": "United Kingdom\\r\\n", "PartitionKey": '675305.224415684'}'

[0] 0:guide.md-1:consumer-kinesis-local-to-dynamo>Z ip-172-31-83-3.ec2.int 00:18 30-Oct-21
```

Lambda

1. Lambda Source Code

```
1 import base64
2 import json
3 import boto3
4 import decimal
5
6 def lambda_handler(event, context):
7     item = None
8     dynamo_db = boto3.resource('dynamodb')
9     table = dynamo_db.Table('acmecoreOrders')
10    decoded_record_data = [base64.b64decode(record['kinesis']['data']) for record in event['Records']]
11    deserialized_data = [json.loads(decoded_record) for decoded_record in decoded_record_data]
12
13    with table.batch_writer() as batch_writer:
14        for item in deserialized_data:
15            invoice = item['InvoiceNo']
16            customer = int(item['Customer'])
17            orderDate = item['InvoiceDate']
18            quantity = item['Quantity']
19            description = item['Description']
20            unitPrice = item['UnitPrice']
21            country = item['Country'].rstrip()
22            stockCode = item['StockCode']
23
24            # Construct a unique sort key for this line item
25            orderID = invoice + "-" + stockCode
26
27            batch_writer.put_item(
28                Item = {
29                    'CustomerID': decimal.Decimal(customer),
30                    'OrderID': orderID,
31                    'OrderDate': orderDate,
32                    'Quantity': decimal.Decimal(quantity),
33                    'UnitPrice': decimal.Decimal(unitPrice),
34                    'Description': description,
35                    'Country': country
36                }
37            )
```

2. Delete items for lambda upload

Tag

Any table tag

Find tables by name

< 1 >

acmecoreOrders

Scan Query

Table or index

acmecoreOrders

Filters

Run Reset

Completed Read capacity units consumed: 0.5

Items returned (0)

Actions Create item

< 1 >

The query did not return any results.

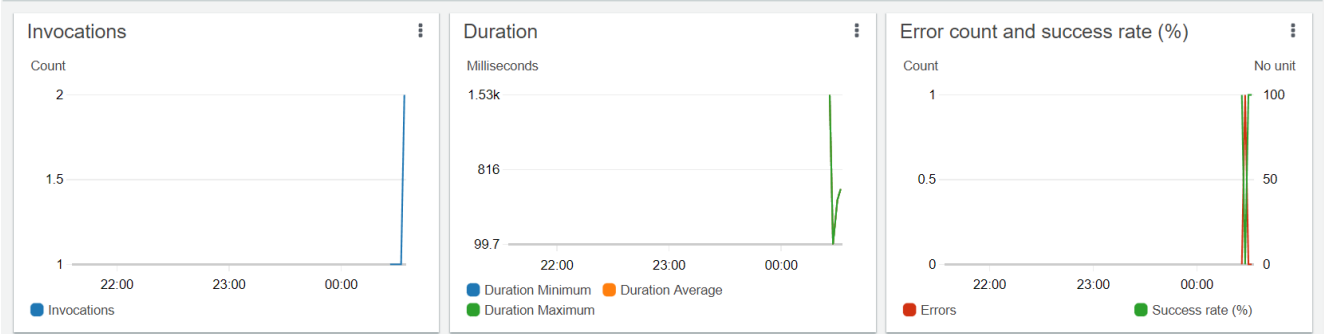
3. Dynamo Items from Lambda

Recent invocations

×

#	Timestamp	RequestID	LogStream	DurationInMS	BilledDurationInMS	Mem
▼ 1	2021-10-30T00:32:40.176Z	b434710b-f8c0-4865-b318-468a4d791561	2021/10/30/[\$LATEST]a6fe3e7cf65b4b8183f77d4d599bc1e0	633.47	634	128
	@billedDuration	634.0				
	@duration	633.47				
	@ingestionTime	1635553968560				
	@log	368396404142:/aws/lambda/ProcessOrders				
	@logStream	2021/10/30/[\$LATEST]a6fe3e7cf65b4b8183f77d4d599bc1e0				
	@maxMemoryUsed	6.6E7				
	@memorySize	1.28E8				
	@message	REPORT RequestId: b434710b-f8c0-4865-b318-468a4d791561 Duration: 633.47 ms Billed Duration: 634 ms Memory Size: 128 MB Max Memory Used: 66 MB				
	@requestId	b434710b-f8c0-4865-b318-468a4d791561				
	@timestamp	1635553968176				
	@type	REPORT				
▼ 2	2021-10-30T00:30:18.865Z	0fc38284-d771-49f9-94b3-7d086e50c444	2021/10/30/[\$LATEST]a6fe3e7cf65b4b8183f77d4d599bc1e0	522.13	523	128
	@billedDuration	523.0				
	@duration	522.13				
	@ingestionTime	1635553827375				
	@log	368396404142:/aws/lambda/ProcessOrders				
	@logStream	2021/10/30/[\$LATEST]a6fe3e7cf65b4b8183f77d4d599bc1e0				
	@maxMemoryUsed	6.6E7				

Close



acmeOrders

Items returned (200)

Actions Create item

< 1 2 3 4 > ⚙️

<input type="checkbox"/>	Custom...	OrderID	Country	Descripti...	OrderDate	Quantity
<input type="checkbox"/>	18235	568780-21...	United King...	PARTY MET...	9/29/2011 ...	12
<input type="checkbox"/>	18235	568780-21...	United King...	GIN & TONI...	9/29/2011 ...	24
<input type="checkbox"/>	18235	568780-21...	United King...	VINTAGE H...	9/29/2011 ...	12
<input type="checkbox"/>	18235	568780-21...	United King...	BINGO SET	9/29/2011 ...	4
<input type="checkbox"/>	18235	568780-21...	United King...	PACK OF 12...	9/29/2011 ...	24
<input type="checkbox"/>	18235	568780-22...	United King...	PAPER CHA...	9/29/2011 ...	12
<input type="checkbox"/>	18235	568780-22...	United King...	SCOTTIE D...	9/29/2011 ...	6
<input type="checkbox"/>	18235	568780-22...	United King...	GREY HEAR...	9/29/2011 ...	6
<input type="checkbox"/>	18235	568780-22...	United King...	WOODLAN...	9/29/2011 ...	8
<input type="checkbox"/>	18235	568780-22...	United King...	RETROSPO...	9/29/2011 ...	8
<input type="checkbox"/>	18235	568780-22...	United King...	MINI PAINT ...	9/29/2011 ...	36
<input type="checkbox"/>	18235	568780-22...	United King...	MAGIC DRA...	9/29/2011 ...	24
<input type="checkbox"/>	18235	568780-22...	United King...	MAGIC DRA...	9/29/2011 ...	24