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SDEV400
Homework 2: Using DynamoDB
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Part 1

1. Create Table

```
aws dynamodb create-table \  
  --table-name Sensors \  
  --attribute-definitions \  
    AttributeName=Sensor,AttributeType=S \  
  --key-schema \  
    AttributeName=Sensor,KeyType=HASH \  
  --provisioned-throughput \  
    ReadCapacityUnits=25,WriteCapacityUnits=25
```

```
{  
  "TableDescription": {  
    "TableArn": "arn:aws:dynamodb:us-east-1:856610439518:table/Sensors",  
    "AttributeDefinitions": [  
      {  
        "AttributeName": "Sensor",  
        "AttributeType": "S"  
      }  
    ],  
    "ProvisionedThroughput": {  
      "NumberOfDecreasesToday": 0,  
      "WriteCapacityUnits": 25,  
      "ReadCapacityUnits": 25  
    },  
    "TableSizeBytes": 0,  
    "TableName": "Sensors",  
    "TableStatus": "CREATING",  
    "TableId": "f3b66ad6-1c35-4e93-8919-33044c901655",  
    "KeySchema": [  
      {  
        "KeyType": "HASH",  
        "AttributeName": "Sensor"  
      }  
    ]  
  }  
}
```

	Name	Status	Partition key
<input type="radio"/>	Sensors	Active	Sensor (String)

2. Fill Table

```
aws dynamodb batch-write-item --request-items file://random.json
```

```
vocstartsoft:~/environment $ aws dynamodb batch-write-item --request-items file://random.json
{
  "UnprocessedItems": {}
}
vocstartsoft:~/environment $
```

Scan: [Table] Sensors: Sensor ^ Viewing 1 to 20 items

Scan [Table] Sensors: Sensor ^

+ Add filter

Start search

	Sensor ⓘ	ImageFile	Locations	SampleRate	SensorDesc
<input type="checkbox"/>	1314231955		{ "Aurora, Colorado", "Houston, Texas", "Phoenix, Arizona", "San Bernardin...	80	microphone
<input type="checkbox"/>	1397947740		{ "Long Beach, California", "Los Angeles, California", "Portland, Oregon", "...	203	
<input type="checkbox"/>	2134858749	/images/electricguitar.jpg	{ "Aurora, Colorado", "Houston, Texas", "Phoenix, Arizona", "San Bernardin...		electric guitar
<input type="checkbox"/>	2701968251	/images/microphone3.jpg			
<input type="checkbox"/>	2858827593	/images/microphone.jpg		1853	a microphone

3. Scan Table

```
aws dynamodb scan --table-name Sensors
```

```
vocstartsoft:~/environment $ aws dynamodb scan --table-name Sensors
{
  "Count": 20,
  "Items": [
    {
      "ImageFile": {
        "S": "/images/electricguitar.jpg"
      },
      "SampleRate": {
        "N": "5605"
      },
      "Sensor": {
        "S": "6420945476"
      },
      "Locations": {
        "SS": [
          "Phoenix, Arizona",
          "San Bernardino, California"
        ]
      }
    },
    {
      "SensorDescription": {
        "S": "microphone"
      },
      "SampleRate": {
        "N": "80"
      }
    }
  ]
}
```

Part 2

1. Create Table

```
vocstartsoft:~/environment $ python3 main.py
MENU
1: Display Course Title
2: List Courses
3: Create Table
0: Exit Program

Enter '<' to return to the menu at any time.

Select an option: 3
MENU
1: Display Course Title
2: List Courses
3: Create Table
0: Exit Program

Enter '<' to return to the menu at any time.

Select an option: █
```

2. List Courses

```
Select an option: 2
MATH 246
MATH 301
SDEV 300
SDEV 400
CMIS 320
CMIS 440
CMIT 326
CMIT 424
CMSC 335
CMSC 412
MENU
```

3. Display Course Title

```
vocstartsoft:~/environment $ python3 main.py
MENU
1: Display Course Title
2: List Courses
3: Create Table
0: Exit Program

Enter '<' to return to the menu at any time.

Select an option: 1
Enter Subject: SDEV
Enter Course Number: 300
The title of SDEV 300 is Building Secure Python Applications.

Would you like to search for another title? (Y or N): Y
Enter Subject: CMIT
Enter Course Number: 326
The title of CMIT 326 is Cloud Technologies.

Would you like to search for another title? (Y or N): Y
Enter Subject: CMSC
Enter Course Number: 301
Invalid Course Number associated with Subject.
Please enter a valid course number.
Enter Course Number: 412
The title of CMSC 412 is Operating Systems.

Would you like to search for another title? (Y or N): N
MENU
```

```
Would you like to search for another title? (Y or N): N
MENU
1: Display Course Title
2: List Courses
3: Create Table
0: Exit Program

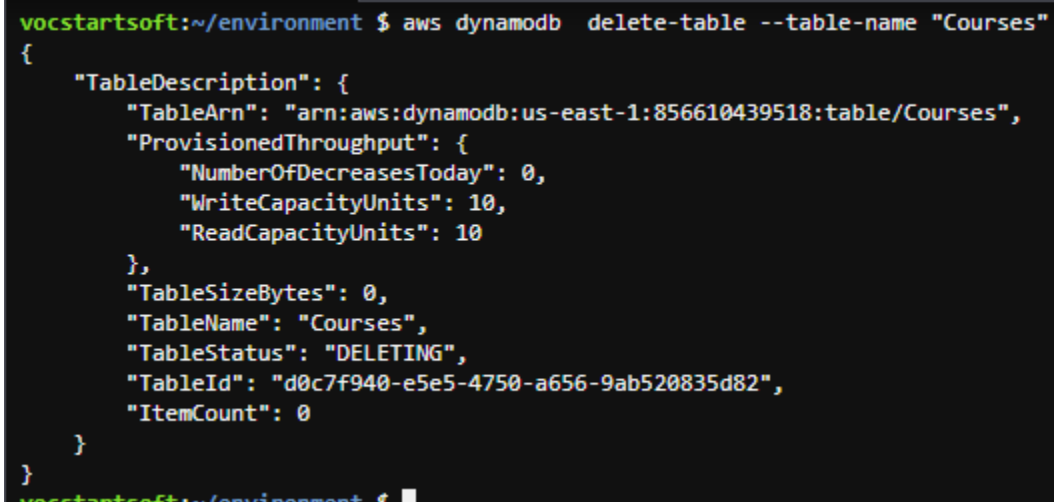
Enter '<' to return to the menu at any time.

Select an option: 0
Thanks for using the Catalog Search program.
vocstartsoft:~/environment $
```

Part 3

1. Delete Table

```
aws dynamodb delete-table --table-name "Courses"
```



```
vocstartsoft:~/environment $ aws dynamodb delete-table --table-name "Courses"
{
  "TableDescription": {
    "TableArn": "arn:aws:dynamodb:us-east-1:856610439518:table/Courses",
    "ProvisionedThroughput": {
      "NumberOfDecreasesToday": 0,
      "WriteCapacityUnits": 10,
      "ReadCapacityUnits": 10
    },
    "TableSizeBytes": 0,
    "TableName": "Courses",
    "TableStatus": "DELETING",
    "TableId": "d0c7f940-e5e5-4750-a656-9ab520835d82",
    "ItemCount": 0
  }
}
```