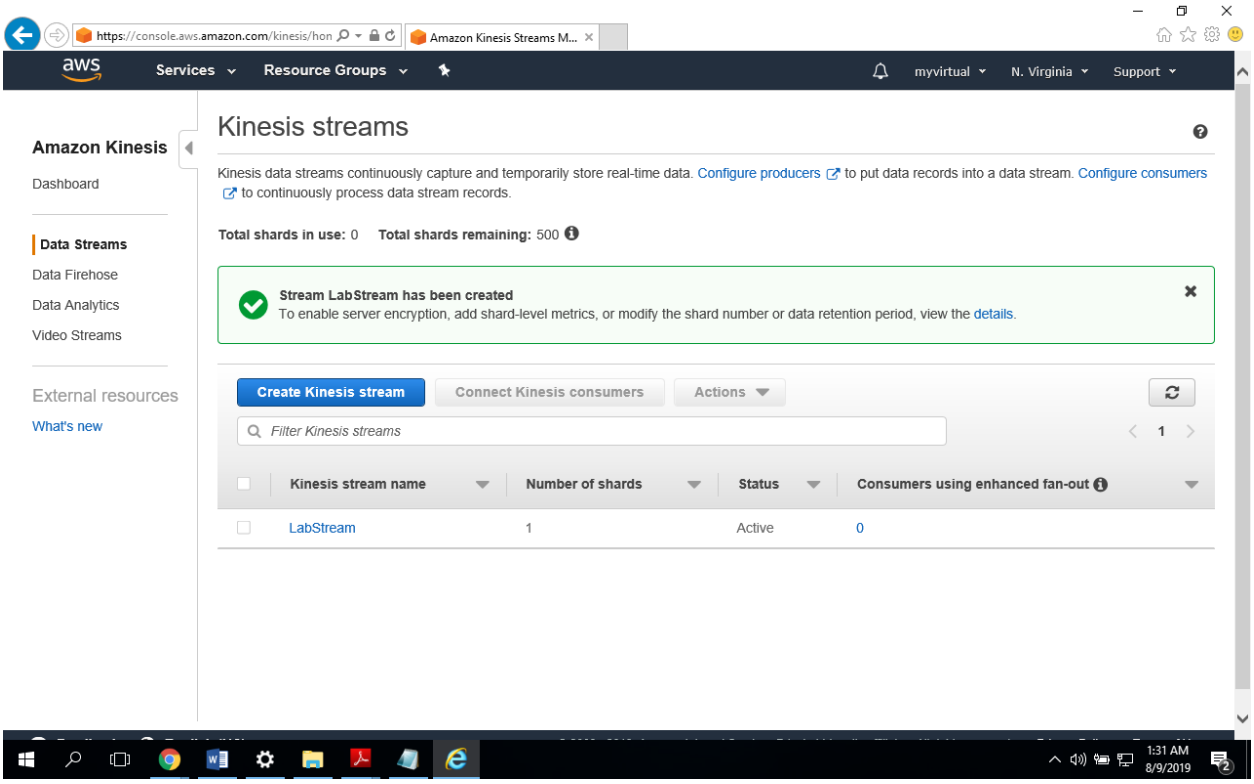
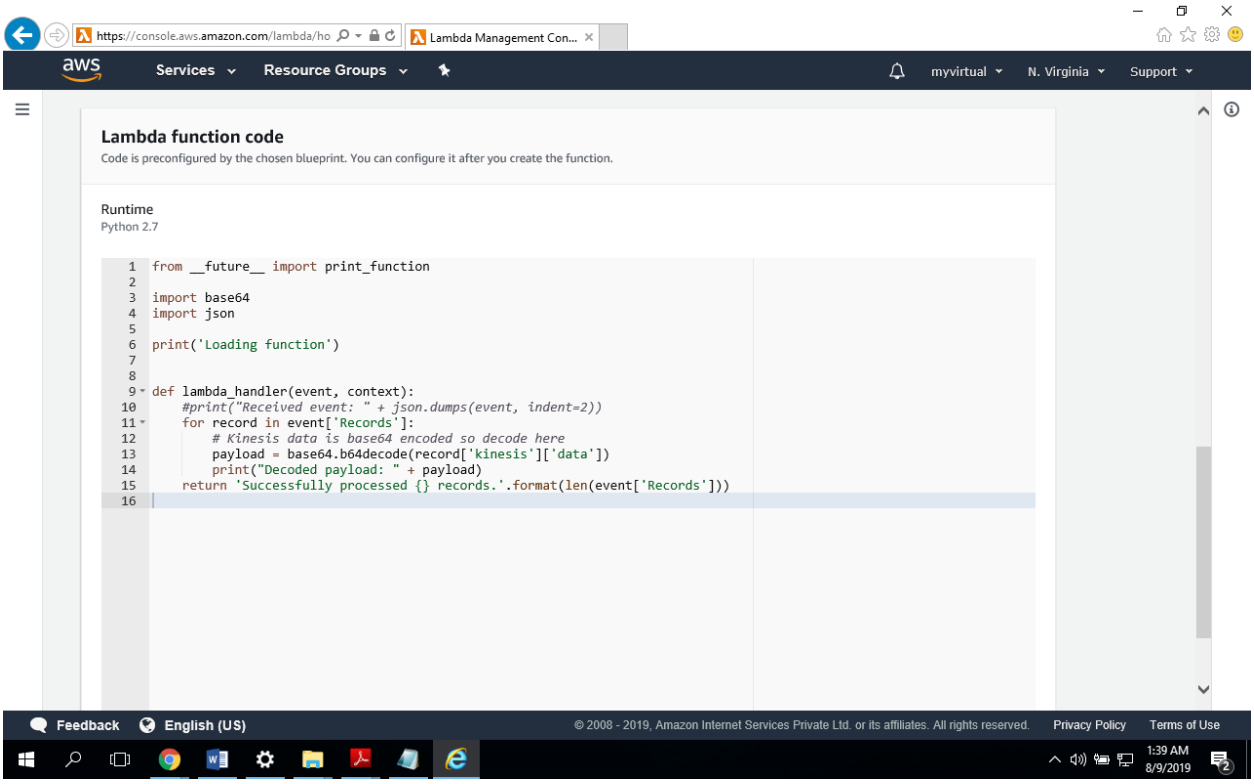
Serverless Architectures with Amazon DynamoDB and Amazon Kinesis Streams with AWS Lambda

Task 1: Create an Amazon Kinesis Stream



Task 2: Create a Lambda function


https://console.aws.amazon.com/lambda/ho
Lambda Management Con...
aws
Services
Resource Groups
myvirtual
N. Virginia
Support
Lambda function code
Code is preconfigured by the chosen blueprint. You can configure it after you create the function.
Runtime
Python 2.7
from __future__ import print_function
import base64
import json
print('Loading function')
def lambda_handler(event, context):
#print("Received event: " + json.dumps(event, indent=2))
for record in event['Records']:
# Kinesis data is base64 encoded so decode here
payload = base64.b64decode(record['kinesis']['data'])
print("Decoded payload: " + payload)
return 'Successfully processed {} records.'.format(len(event['Records']))
Feedback
English (US)
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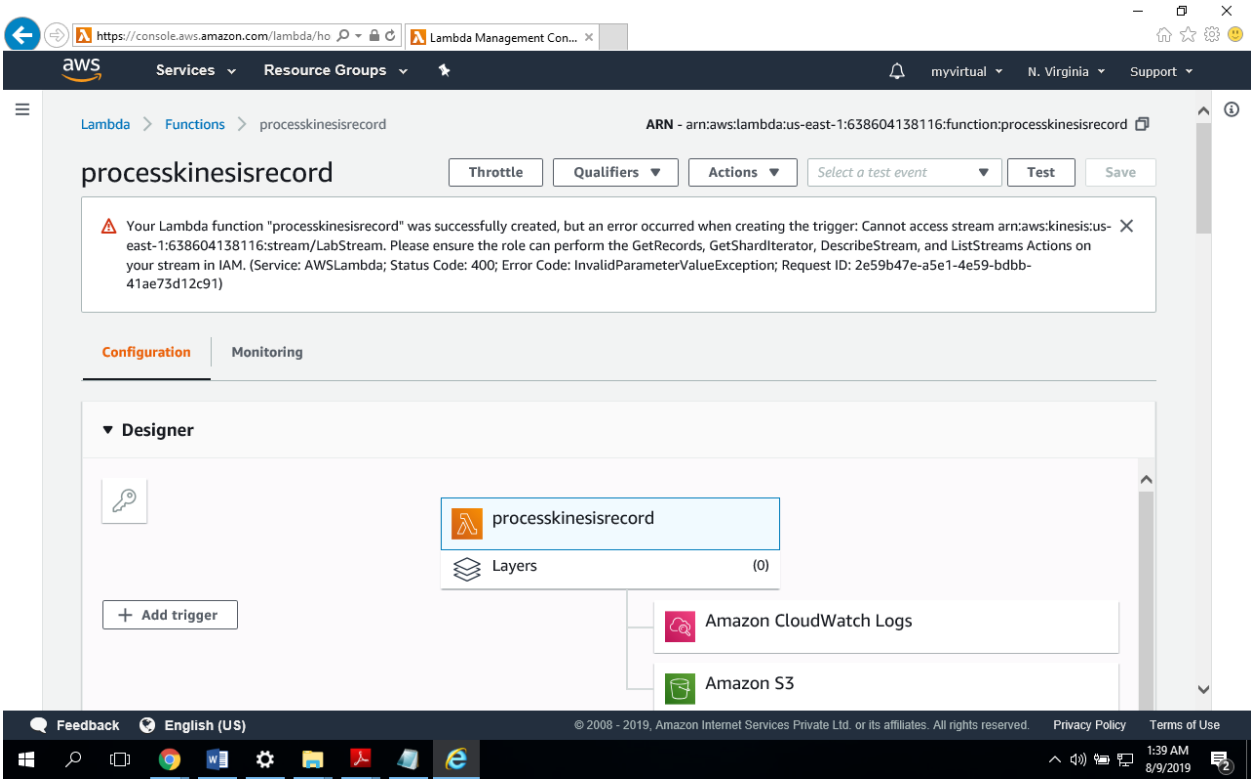
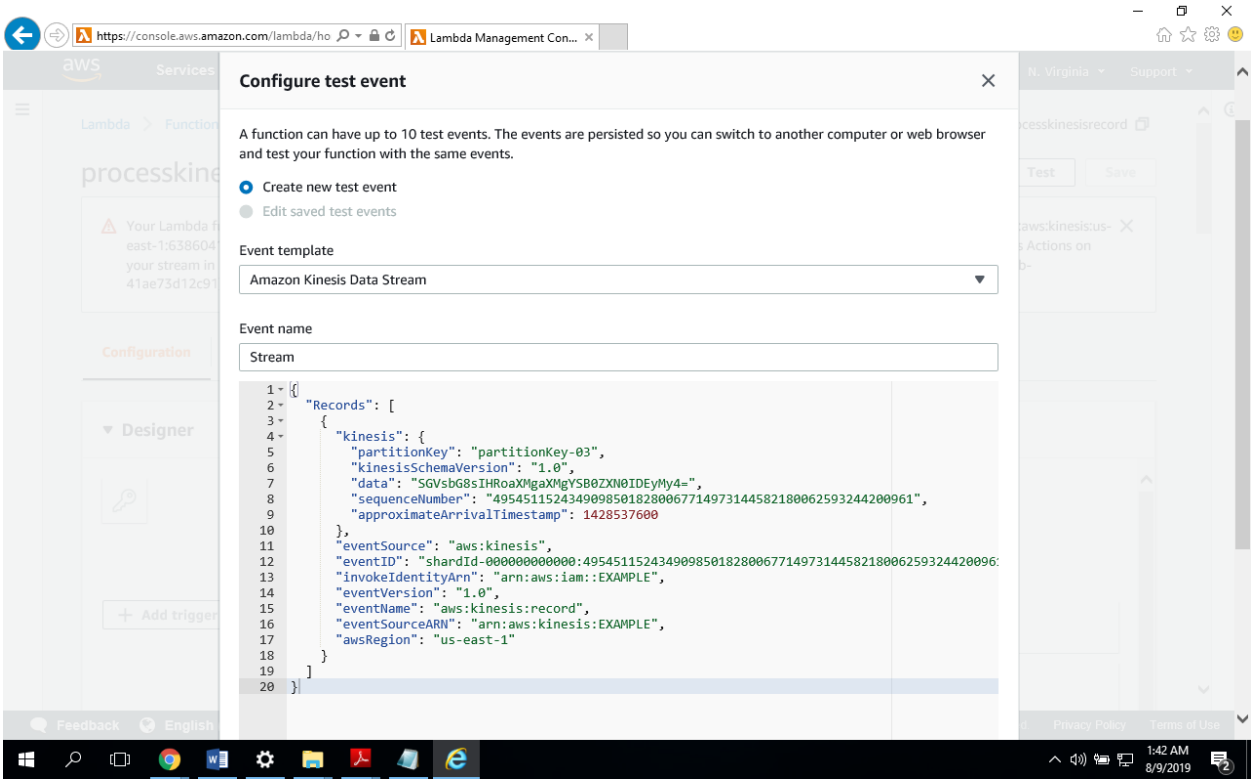
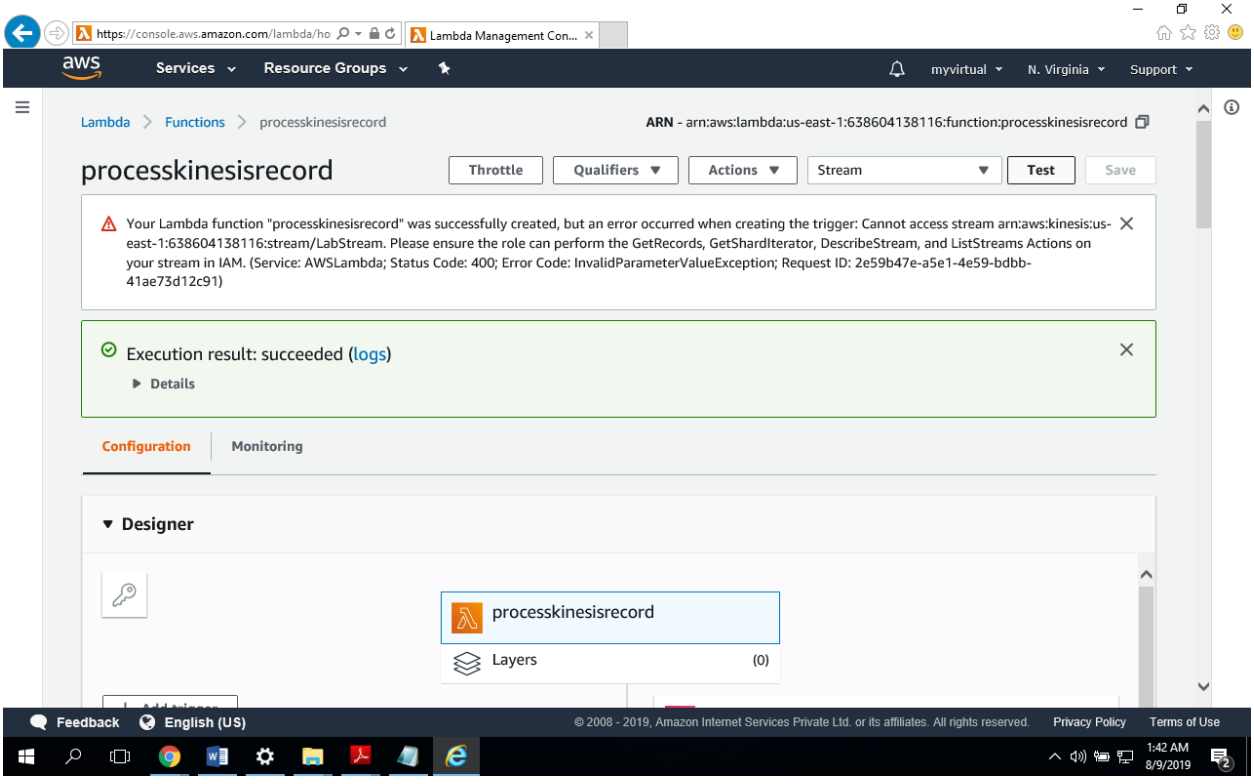


Task 3:Test your function


Configure test event
A function can have up to 10 test events. The events are persisted so you can switch to another computer or web browser and test your function with the same events.
Create new test event
Edit saved test events
Event template
Amazon Kinesis Data Stream
Event name
Stream
{
"Records": [
{
"kinesis": {
"partitionKey": "partitionKey-03",
"kinesisSchemaVersion": "1.0",
"data": "SGVsbG8sIHRoaXMgaXMgYSB0ZXN0IDEyMy4=",
"sequenceNumber": "49545115243490985018280067714973144582180062593244200961",
"approximateArrivalTimestamp": 1428537600
},
"eventSource": "aws:kinesis",
"eventID": "shardId-000000000000:49545115243490985018280067714973144582180062593244200961",
"invokeIdentityArn": "arn:aws:iam::EXAMPLE",
"eventVersion": "1.0",
"eventName": "aws:kinesis:record",
"eventSourceARN": "arn:aws:kinesis:EXAMPLE",
"awsRegion": "us-east-1"
}
]
}


Services
Resource Groups
myvirtual
N. Virginia
Support
Lambda
Functions
processkinesisrecord
ARN - arn:aws:lambda:us-east-1:638604138116:function:processkinesisrecord
processkinesisrecord
Throttle
Qualifiers
Actions
Stream
Test
Save
Your Lambda function "processkinesisrecord" was successfully created, but an error occurred when creating the trigger: Cannot access stream arn:aws:kinesis:us-east-1:638604138116:stream/LabStream. Please ensure the role can perform the GetRecords, GetShardIterator, DescribeStream, and ListStreams Actions on your stream in IAM. (Service: AWSLambda; Status Code: 400; Error Code: InvalidParameterValueException; Request ID: 2e59b47e-a5e1-4e59-bdbb-41ae73d12c91)
Execution result: succeeded (logs)
Details
Configuration
Monitoring
Designer
processkinesisrecord
Layers
(0)
Feedback
English (US)
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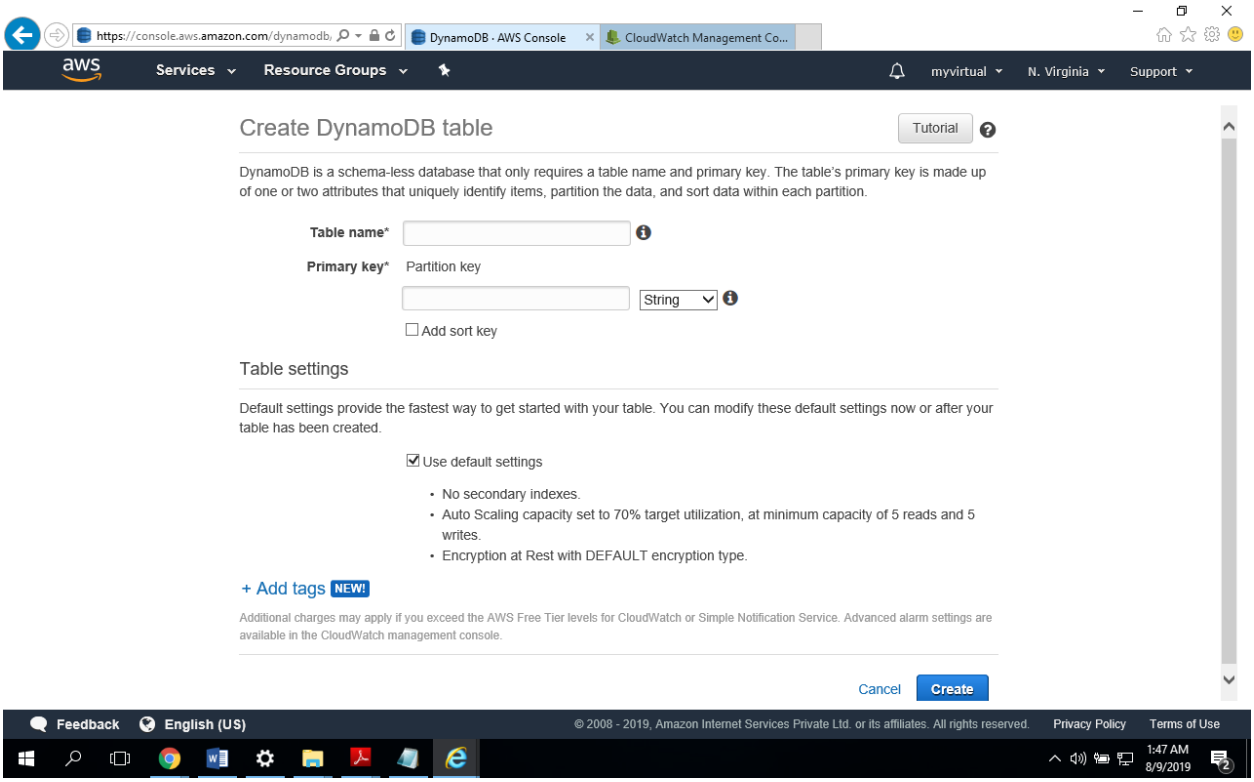
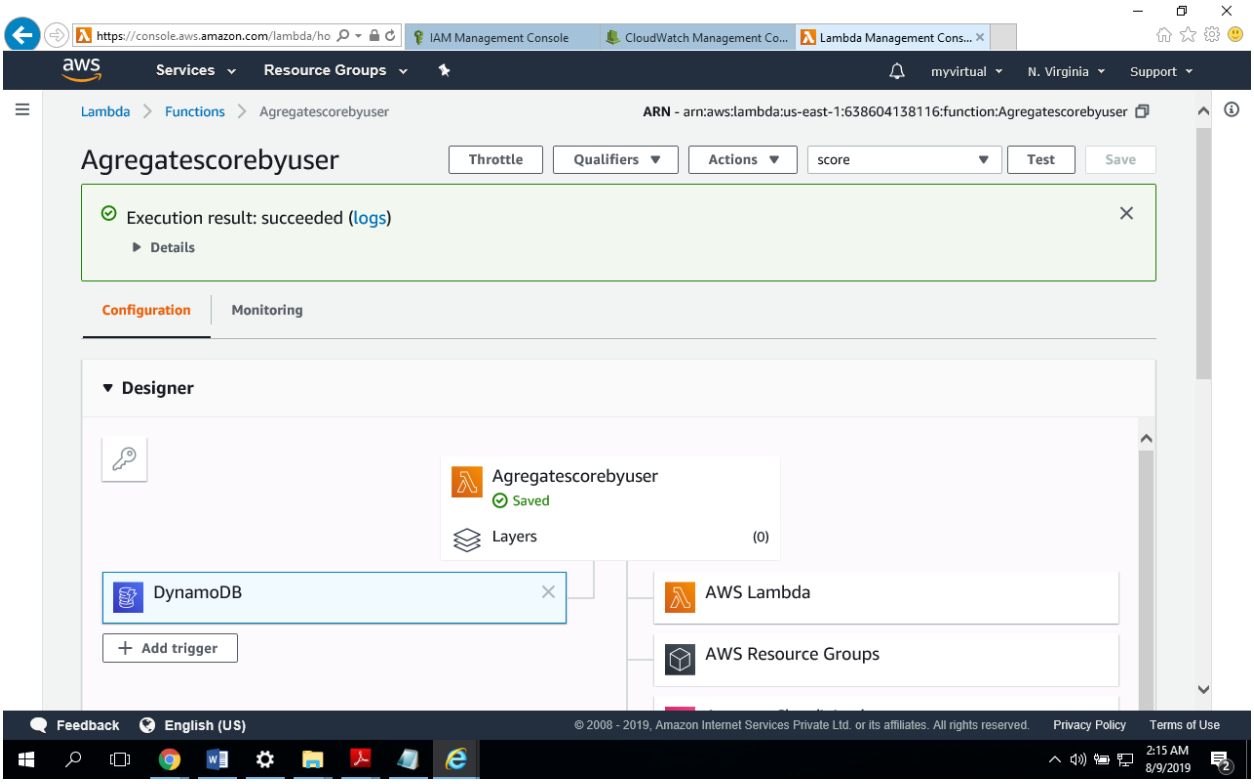
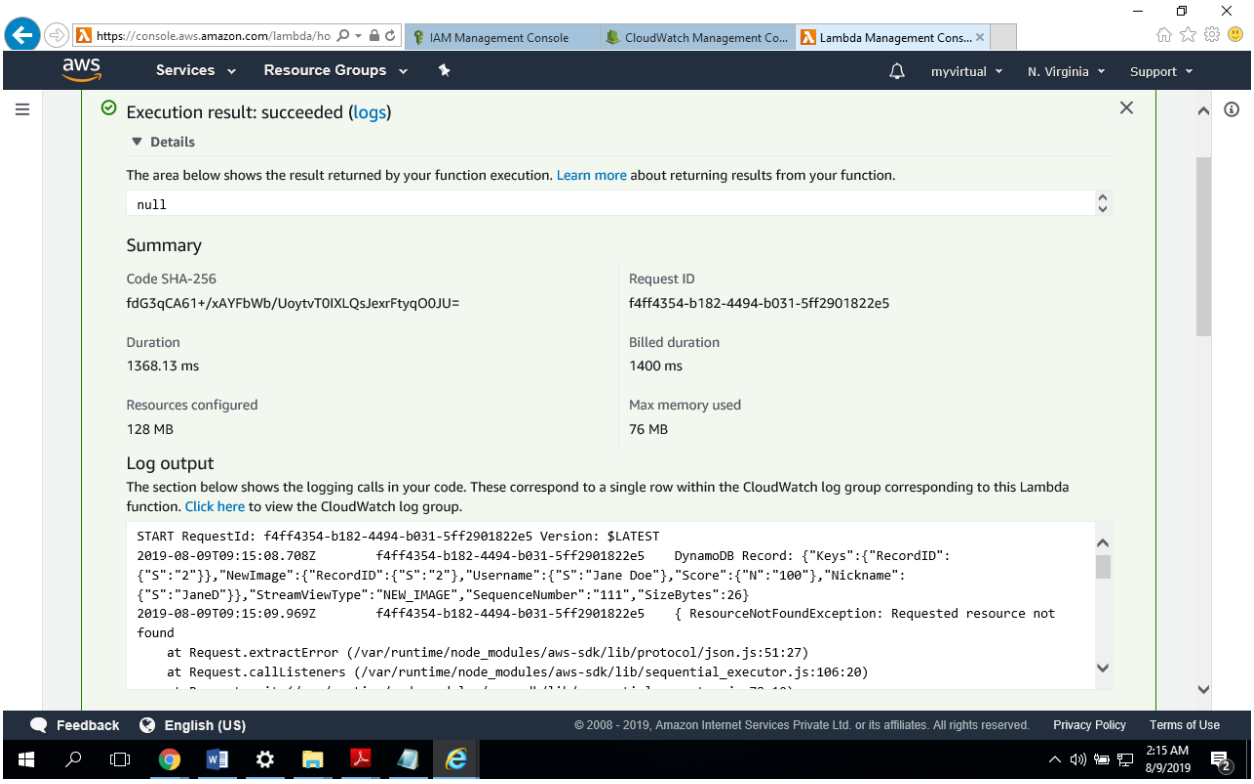
Task 4:Create a table in Dynamo db

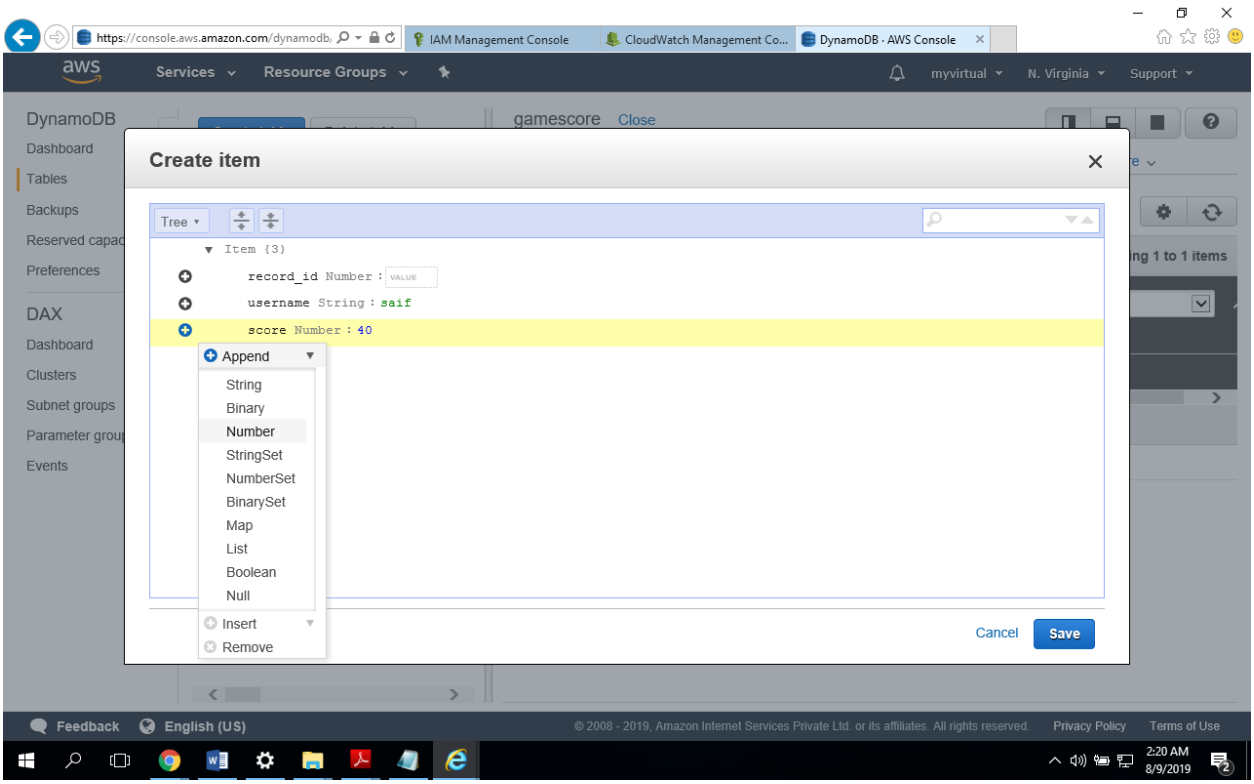


Task 5: Create a Lambda Function



Adding a trigger





Adding items in dynamo db table