

Amazon Kinesis Data Stream

1. Install AWS CLI [LINK](#).
2. Verify AWS cli -
 - a. aws --version
3. AWS kinesis Data Stream
 - a. Goto Amazon Kinesis LINK
 - b. Select Kinesis Data Streams and click on create data stream button
 - c. Enter Data stream name : <yourname>-demo-kinesis
 - d. Capacity mode: Provisioned
 - e. Provisioned shards : 1
 - f. Click on create data stream
4. Create IAM role for Lambda Function
 - a. Open the roles page in the IAM console.
 - b. Choose Create role.
 - c. Create a role with the following properties.
 - d. Trusted entity - AWS Lambda
 - e. Permissions - AWSLambdaKinesisExecutionRole
 - f. Role name - <yourname>-lambda-kinesis-role
5. Create lambda Function
 - a. Goto Lambda Function and Click on Create Function
 - b. Function name: <yourname>-lambda-kinesis
 - c. Runtime: nodejs.16.x
 - d. Under Change default execution role -
 - i. Use an existing role : <yourname>-lambda-kinesis-role
 - e. Add below code to Lambda into index.js and click on deploy

```
console.log('Loading function');
```

```
exports.handler = function(event, context) {  
    //console.log(JSON.stringify(event, null, 2));  
    event.Records.forEach(function(record) {  
        // Kinesis data is base64 encoded so decode here  
        var payload = Buffer.from(record.kinesis.data,  
        'base64').toString('ascii');  
        console.log('Decoded payload:', payload);  
    });  
};
```

- f. Goto Configurations tab in Lambda
 - i. Goto Triggers and Click on Add Trigger
 - ii. Source: Kinesis
 - iii. Kinesis stream: <yourname>-demo-kinesis

- iv. Batch size: 100
 - v. Starting position: Latest
6. For verifying the working execute below aws cli command

```
aws kinesis put-record --stream-name <yourname>-demo-kinesis --partition-key 1 --data
"SSBhbSBSaXRlc2ggR295YWwulFdllGFyZSBsZWYbmluZyBBV1MgS2luZXNpcyBEYX
XRhIFN0cmVhbQ=="
```

NOTE:

–data will be the base64 encoded value

Example:

Plain Text - I am Ritesh Goyal. We are learning AWS Kinesis Data Stream.

Base64 -

```
SSBhbSBSaXRlc2ggR295YWwulFdllGFyZSBsZWYbmluZyBBV1MgS2luZXNpcyBEYX
RhIFN0cmVhbQ==
```

7. Verify the logs
- a. Goto Cloudwatch → logs → log groups
 - b. Click on /aws/lambda/<yourname>-lambda-kinesis
 - c. Open latest log stream and check the recent logs
 - d. Search for message 'Decoded payload' and it will have the message

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