Accessing the Database

Connecting to the DB

Interactions with the DB are stateless

Interaction with DynamoDB occurs over HTTPS request and responses, the app does not need to maintain a persistent connection

Authentication

- Every request needs to be authenticated with a signature to serve the request to the appropriate caller.
- Authentication is handled by AWS identity and access management

Authorization

• You can write an IAM policy that allows various users to access a resource

Requests

 Application needs to send an HTTPS request with the operation to perform, the parameters.

Receiving

 Application returns a message with the data requested, if an error occurs the message contains and error code.

Creating a table

DynamoDB is schema less, all you need is a primary key to access a document

Use the CreateTable action to create a table, specifying the params as:

```
TableName: "Music",
KeySchema: [
{
    AttributeName: "Artist",
    KeyType: "HASH", //Partition key
},
{
    AttributeName: "SongTitle",
    KeyType: "RANGE" //Sort key
}
],
AttributeDefinitions: [
    {
    AttributeName: "Artist",
    AttributeType: "S"
},
```

```
{
    AttributeName: "SongTitle",
    AttributeType: "S"
    }
],
ProvisionedThroughput: {
    ReadCapacityUnits: 1,
    WriteCapacityUnits: 1
}
```

The primary key for this table consists of Artist (Primary Key) and SongTitle (Sort Key) Q: what is the difference between a primary and sort key?

Setting up DynamoDB (Web Service)

• Setup an AWS access key to use the AWS SDKs. (Identity and Access Management)

https://docs.aws.amazon.com/cli/latest/userguide/cli-chap-getting-started.html#cli-guick-configuration

• Setup the AWS SDK for Javascript

For more: Getting started

Things worked on yesterday:

 Setting up AWS DynamoDB web service, created users table. Setup local machine with aws SDK tools

Things I am working on today

• Storing user credentials on AWS, allowing user to login with credential

Are you being impeded by anything?

• May run into errors today, would like to pair program with someone to get it setup by the end of today

Create Table

Load Table Data (If the data is loaded too quickly, AWS will return an error, need to pay to increase throughput)

Need to create a CRUD backend

Create

Read

Update

Delete