Setting up DynamoDB locally (Windows)

1. <u>Download and install Dynamo DB server</u>:

   Download from:
   https://s3.ap-south-1.amazonaws.com/dynamodb-local-mumbai/dynamodb_local_latest.zip

   Un-compress the zip and put in a folder, say `c:/dynamodb`

2. <u>Start DynamoDB Server</u>: In the command prompt window, change the working directory to the `dynamoDB` directory and issue following command:

   ```
   C:/dynamodb>java -Djava.library.path=./DynamoDBLocal_lib -jar
   DynamoDBLocal.jar -sharedDb
   ```

   <u>Do not close this console window. Closing this window will shutdown dynamoDB server.</u>

3. Download AWS CLI from following, and
   https://docs.aws.amazon.com/cli/latest/userguide/install-cliv2-windows.html

   Run its installation. Installation program does all necessary setting, and it should be ready to be used.

4. Configure Dynamo DB. Open another command window and submit command

   ```
   C:/dynamodb>aws configure

   AWS Access Key ID [None]: 1234
   AWS Secret Access Key [None]: 1234
   Default region name [None]: ap-south-1
   Default output format [None]: json
   ```

   It prompts for some inputs. Give some inputs. May preserve this inputs for some later use; we may never need these values, though.

5. Test if set up is done correctly:

   [Create a work directory, say c:\dynamodb-work. Move to this directory before doing following tasks]

   a. Create Table (named as `ProductCatalog`) as following:

   ```
   aws dynamodb create-table ^
   --table-name ProductCatalog ^
   --attribute-definitions ^
           AttributeName=Id,AttributeType=N ^
   --key-schema ^
           AttributeName=Id,KeyType=HASH ^
   --provisioned-throughput ^
           ReadCapacityUnits=10,WriteCapacityUnits=5 ^
       --endpoint-url http://localhost:8000
   ```

If everything is successful, you should see following as a response.

```json
{
   "Table": {
        "AttributeDefinitions": [
        {
             "AttributeName": "Id",
             "AttributeType": "N"
        }
        ],
        "TableName": "ProductCatalog",
        "KeySchema": [
        {
             "AttributeName": "Id",
             "KeyType": "HASH"
        }
        ],
        "TableStatus": "ACTIVE",
        "CreationDateTime": "2021-02-16T00:16:00.227000+05:30",
        "ProvisionedThroughput": {
        "LastIncreaseDateTime": "1970-01-01T05:30:00+05:30",
        "LastDecreaseDateTime": "1970-01-01T05:30:00+05:30",
        "NumberOfDecreasesToday": 0,
        "ReadCapacityUnits": 10,
        "WriteCapacityUnits": 5
        },
        "TableSizeBytes": 0,
        "ItemCount": 0,
        "TableArn":
   "arn:aws:dynamodb:ddblocal:000000000000:table/ProductCatalog"
    }
      }
```

6. Describe the Table

```
$aws dynamodb describe-table ^
    --table-name ProductCatalog ^
   --endpoint-url http://localhost:8000
```

7. You can also check list of tables in your AmazonDB database as following:

```
$aws dynamodb list-tables --endpoint-url http://localhost:8000
```

Response should be as following

```json
{
    "TableNames": [
      " ProductCatalog"
    ]
}
```

8. Done!