Pre-requisite

1. For Windows, WSL Ubuntu Installation
2. Java JRE install (sudo apt install default-jre)
3. Download and install NoSQL Workbench for Amazon Dynamo DB using link: (https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/workbench.settingup.html)

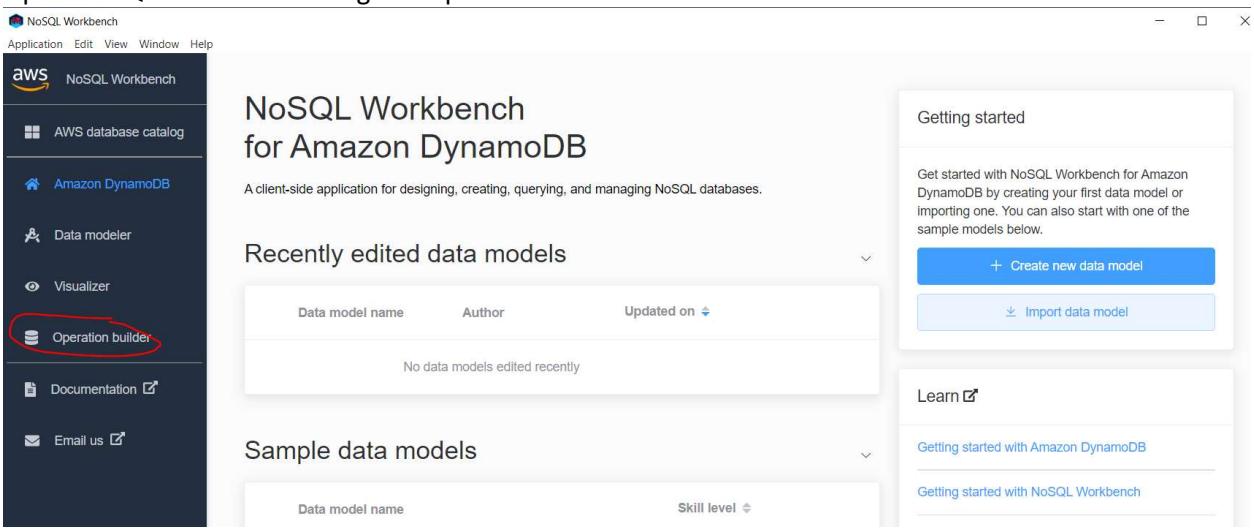
Getting Started

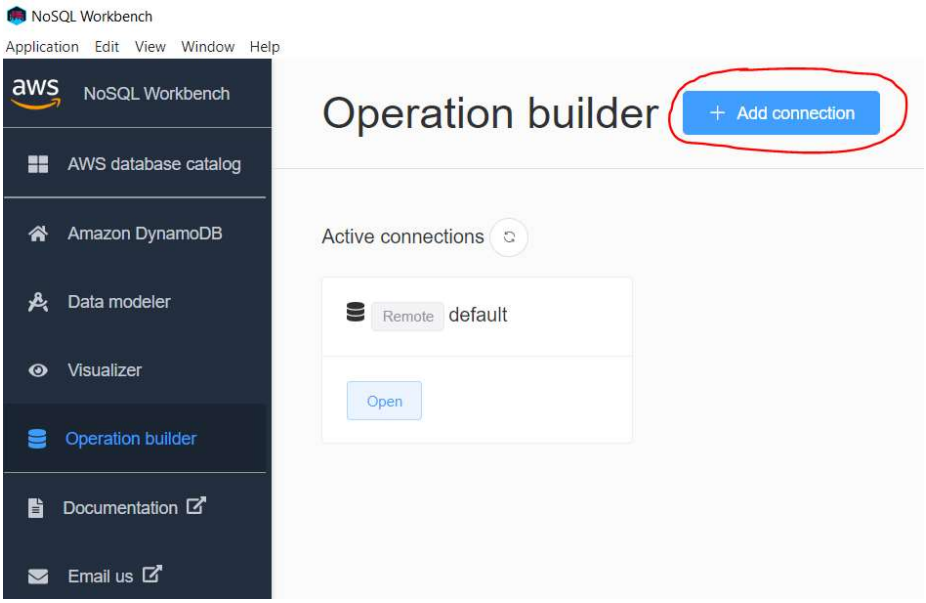
Note: **--endpoint-url http://localhost:8000** is very important to include in CLI to execute locally but not important if CLI will be executed with Access Key ID and Secret Access Key from AWS Subscription
Note: The commands below are ubuntu bash based shell.

1. In one window, execute the below line to initiate the Dynamo DB Locally
   java -Djava.library.path=./DynamoDBLocal_lib -jar DynamoDBLocal.jar -sharedDb

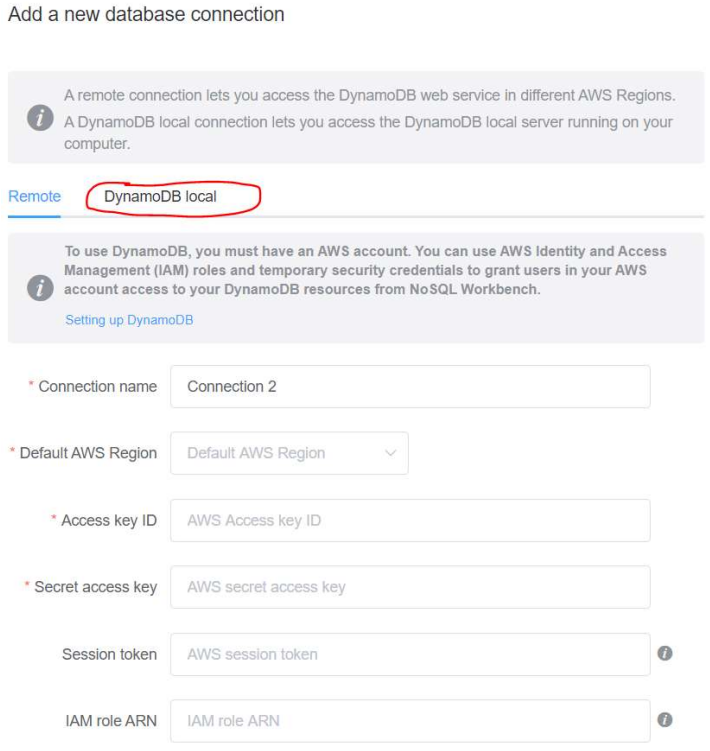
```
No VM guests are running outdated hypervisor (qemu) binaries on this host.
root@DESKTOP-JLEGGJC:/mnt/d/AWSDynamo/dynamodb_local_latest# java -Djava.library.path=./DynamoDBLocal_lib -jar DynamoDBLocal.jar -sharedDb
Initializing DynamoDB Local with the following configuration:
Port:   8000
InMemory:       false
DbPath: null
SharedDb:       true
shouldDelayTransientStatuses:   false
CorsParams:     *
```

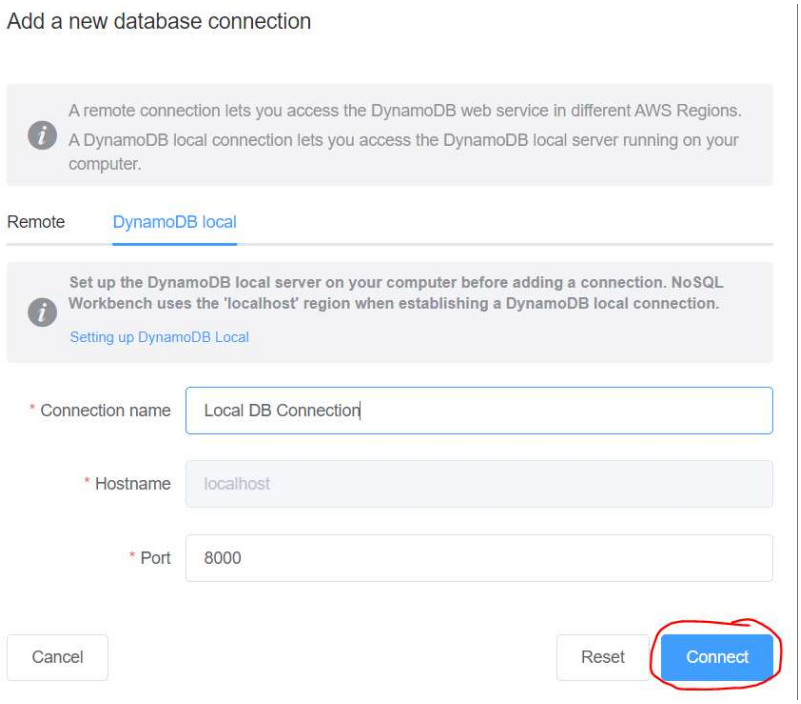
2. Open NoSQL Workbench and go to Operation Builder and Add connection



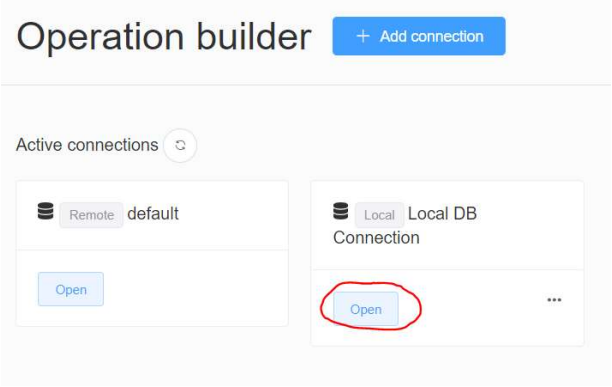


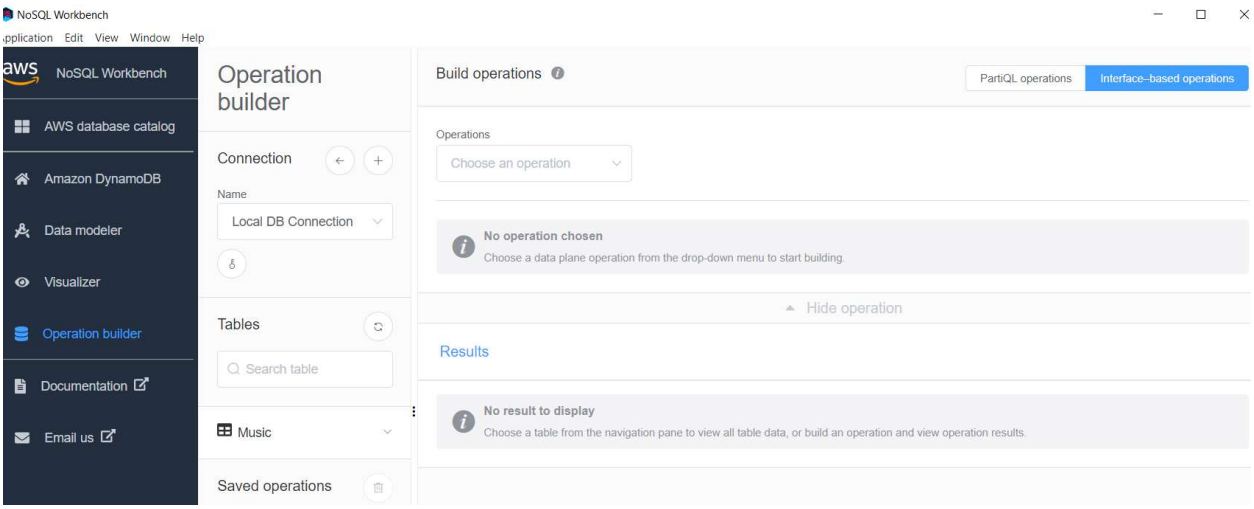
3. Then choose DynamoDB Local and fill-out necessary fields and click Connect to connect to the Local DB





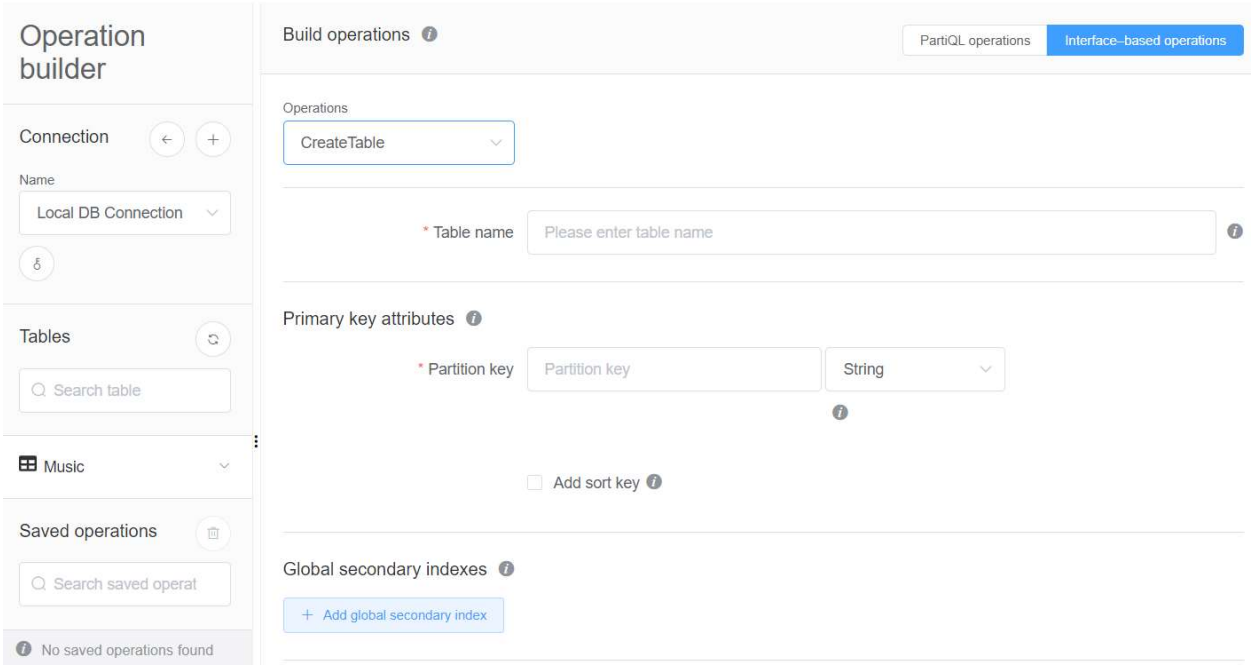
4. Local DB Connection is now created and active and click Open button to start with Operation Builder tasks. Operation builder window appears.
Note: Interface-based operations are using AWS CLI commands for DynamoDB Operations. PartiQL operations are using PartiQL query for DynamoDB Operations.

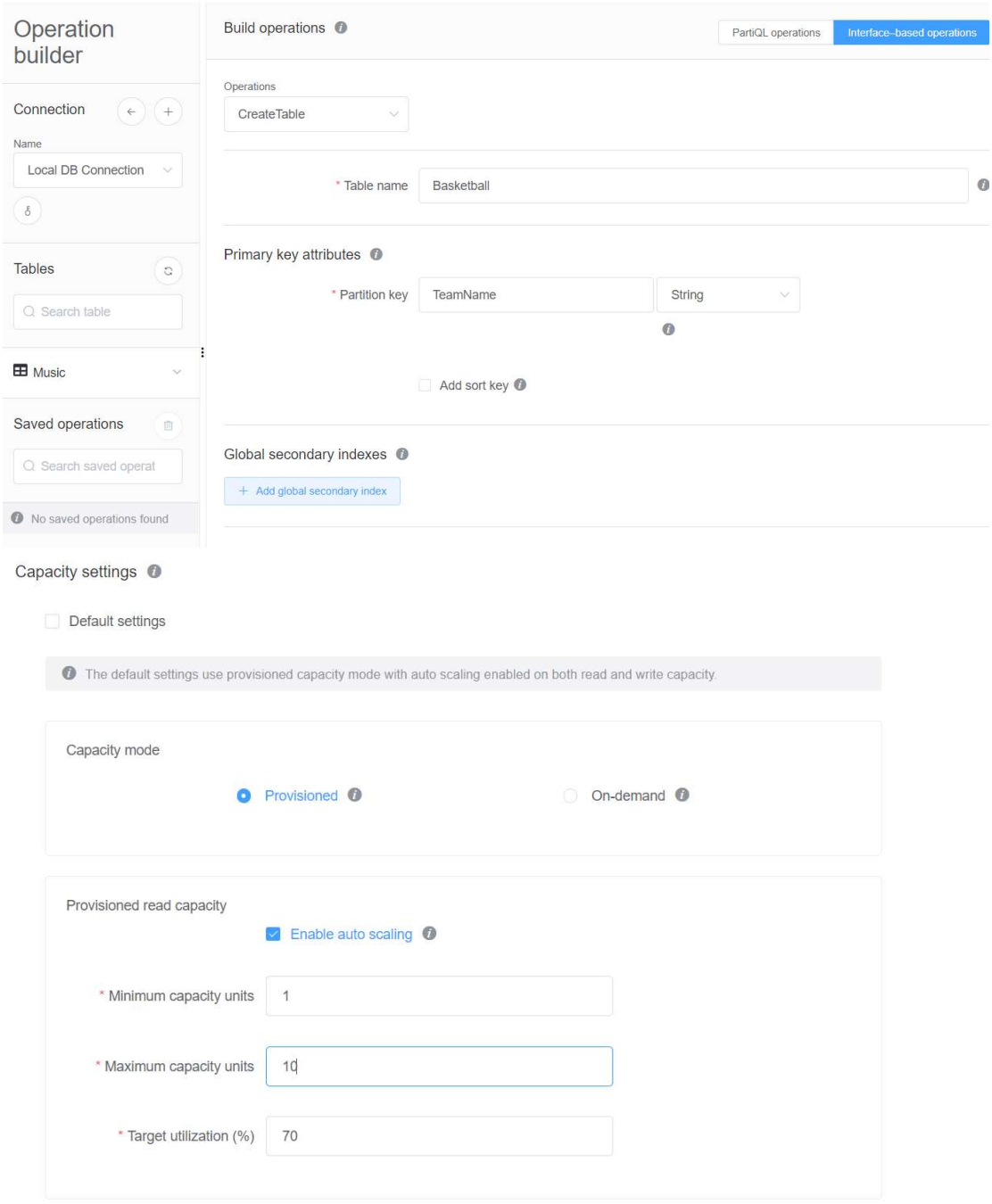


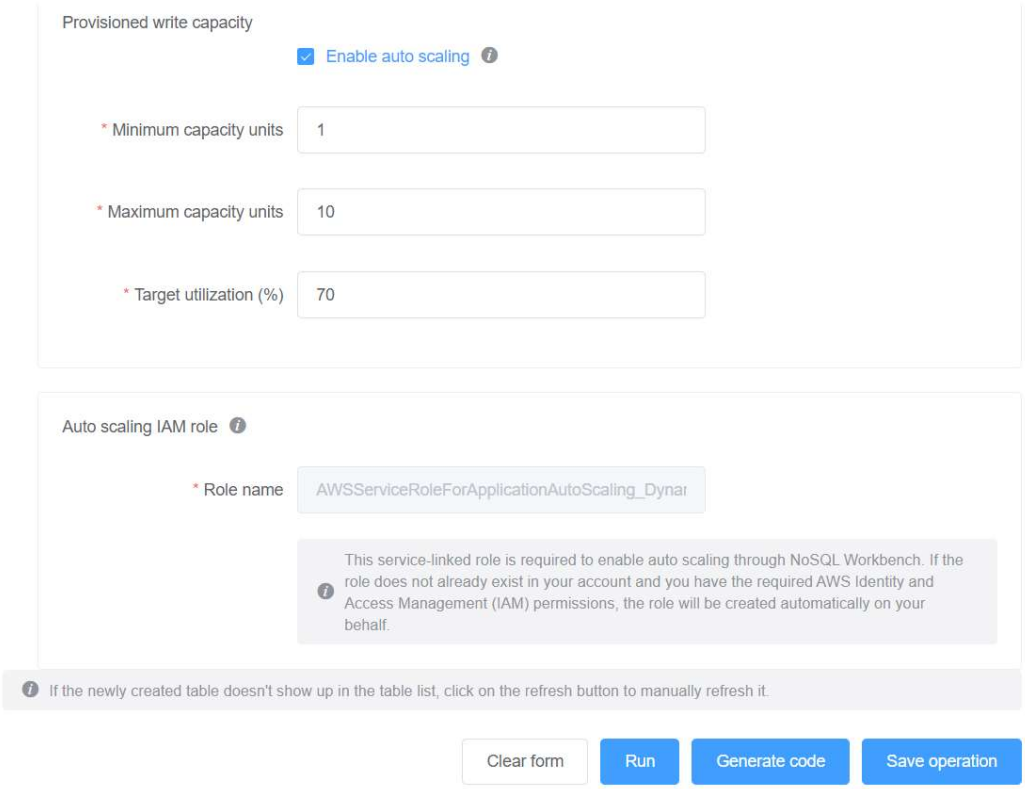


Interface-based operations

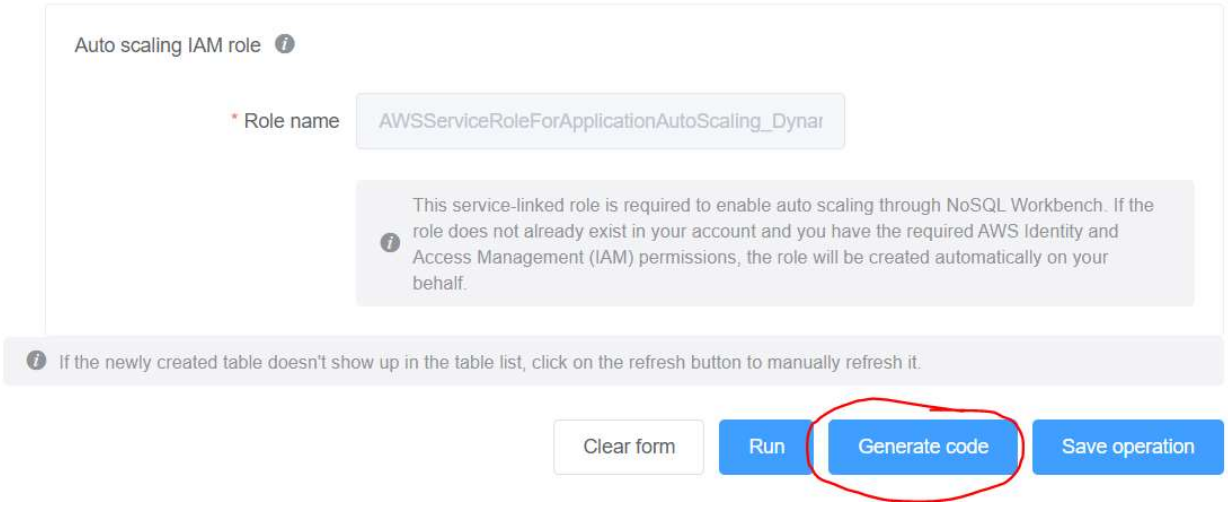
1. Choose CreateTable Operation to start with table creation and fill-out the details



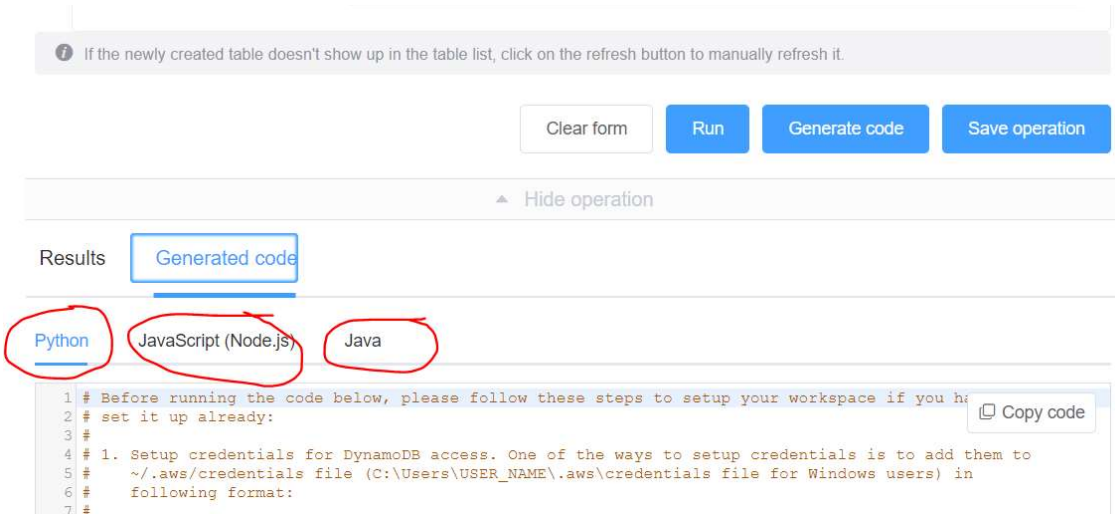

Operation builder
Connection
Name
Local DB Connection
Tables
Search table
Music
Saved operations
Search saved operat
No saved operations found
Build operations
PartiQL operations
Interface-based operations
Operations
CreateTable
* Table name
Basketball
Primary key attributes
* Partition key
TeamName
String
Add sort key
Global secondary indexes
+ Add global secondary index
Capacity settings
Default settings
The default settings use provisioned capacity mode with auto scaling enabled on both read and write capacity.
Capacity mode
Provisioned
On-demand
Provisioned read capacity
Enable auto scaling
* Minimum capacity units
1
* Maximum capacity units
10
* Target utilization (%)
70



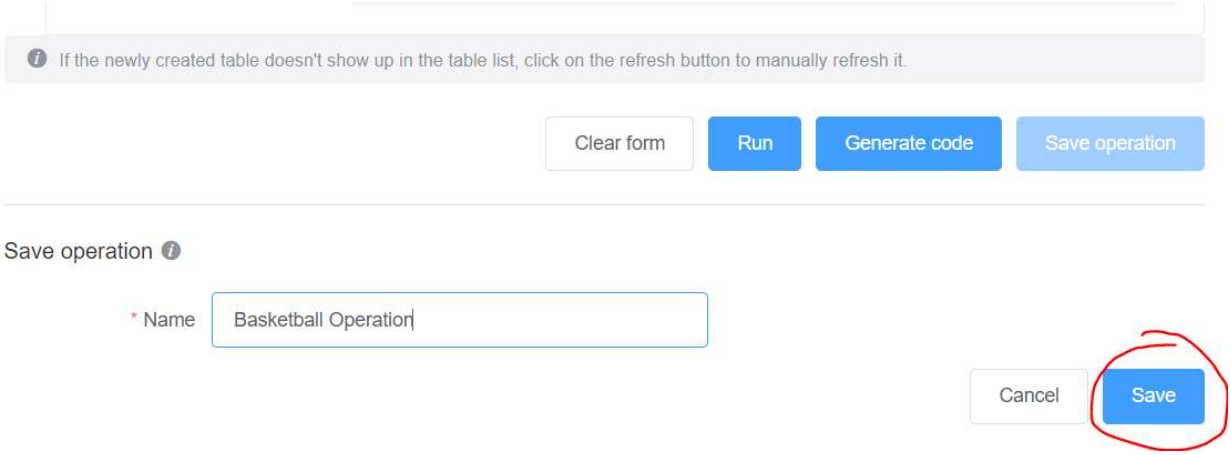
2. Then click Generate Code to check the different programming language codes produced given by above values



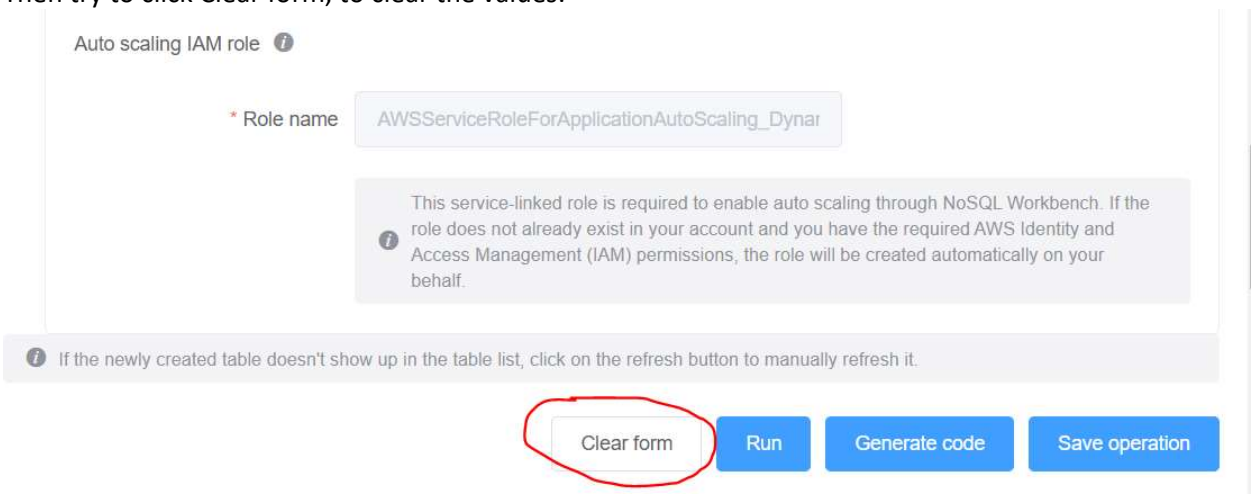
3. Then go down further below to explore the generated code of Python, Javascript (Node.js), and Java to create the table



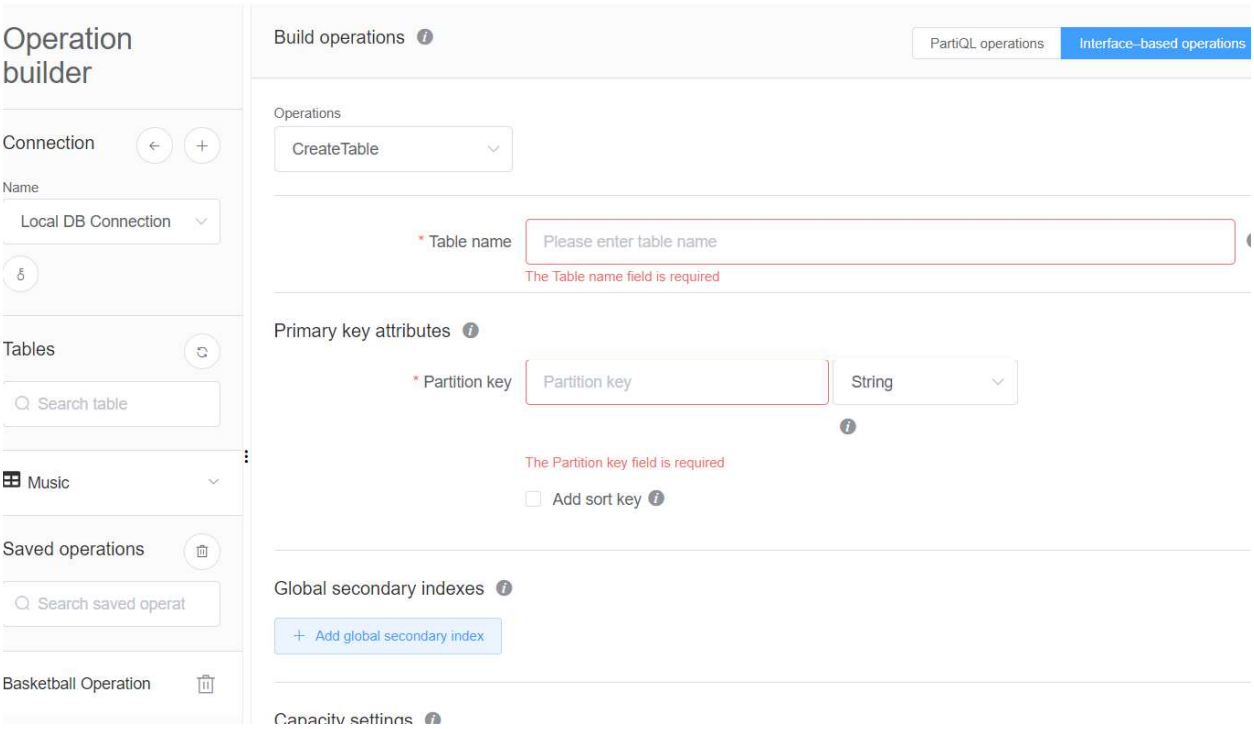
4. Click Save operation button and provide the Name and click Save button to save the values. But the table is not yet created.



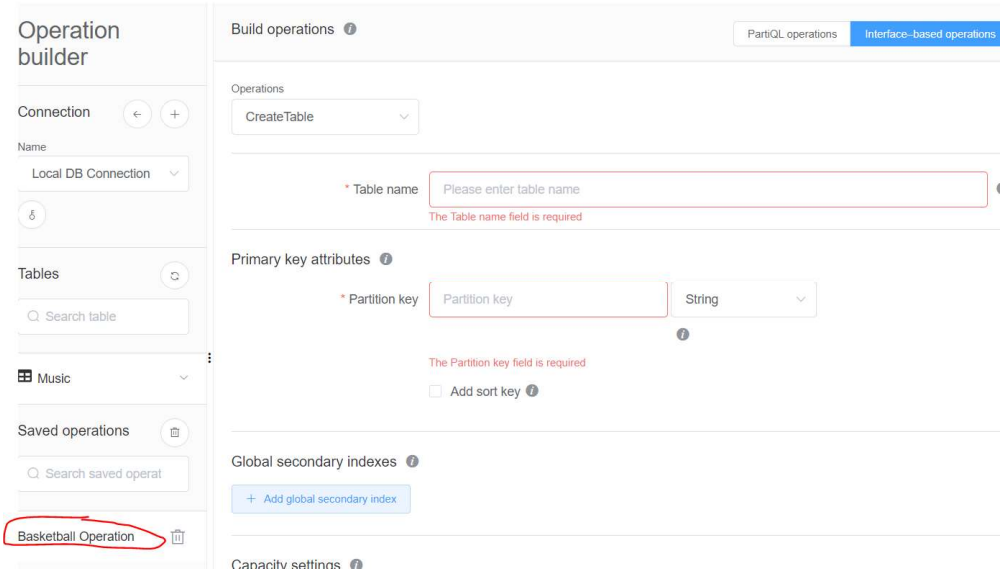
5. Then try to click Clear form, to clear the values.



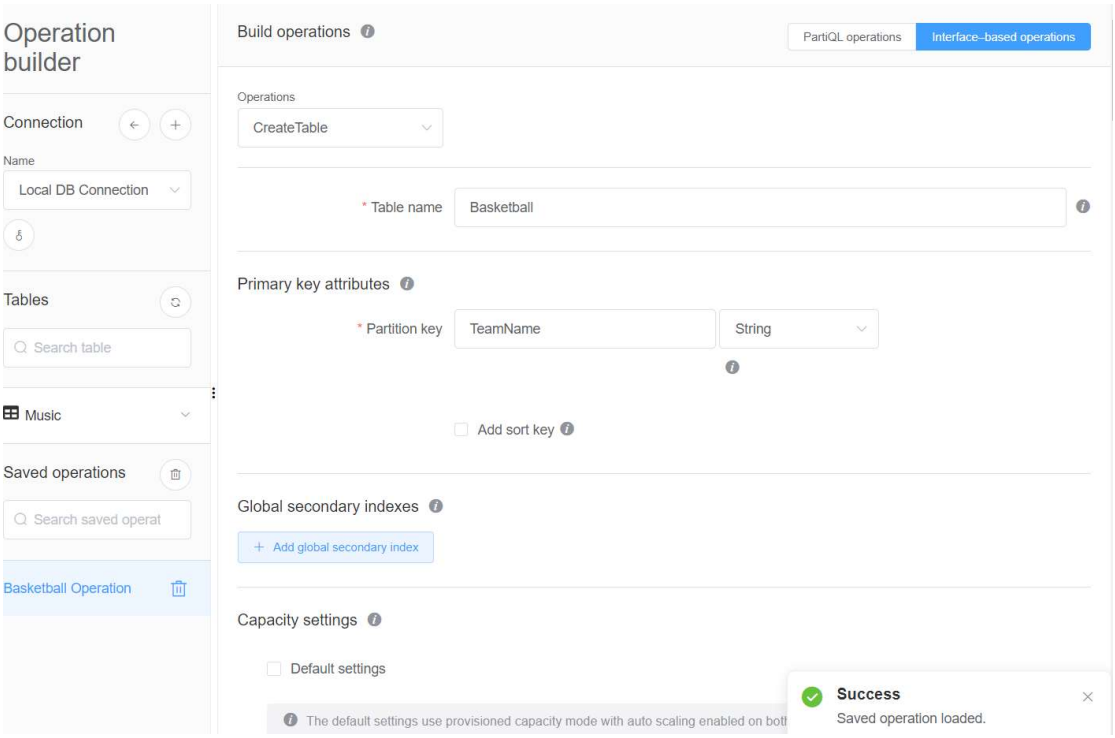
6. After clearing the form, values are already empty



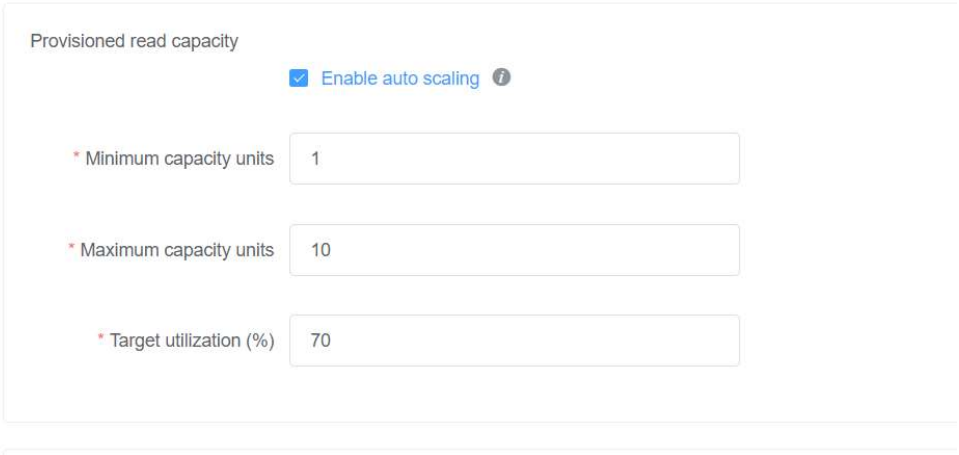
7. Click the Basketball operations to restore the create table setup or values.

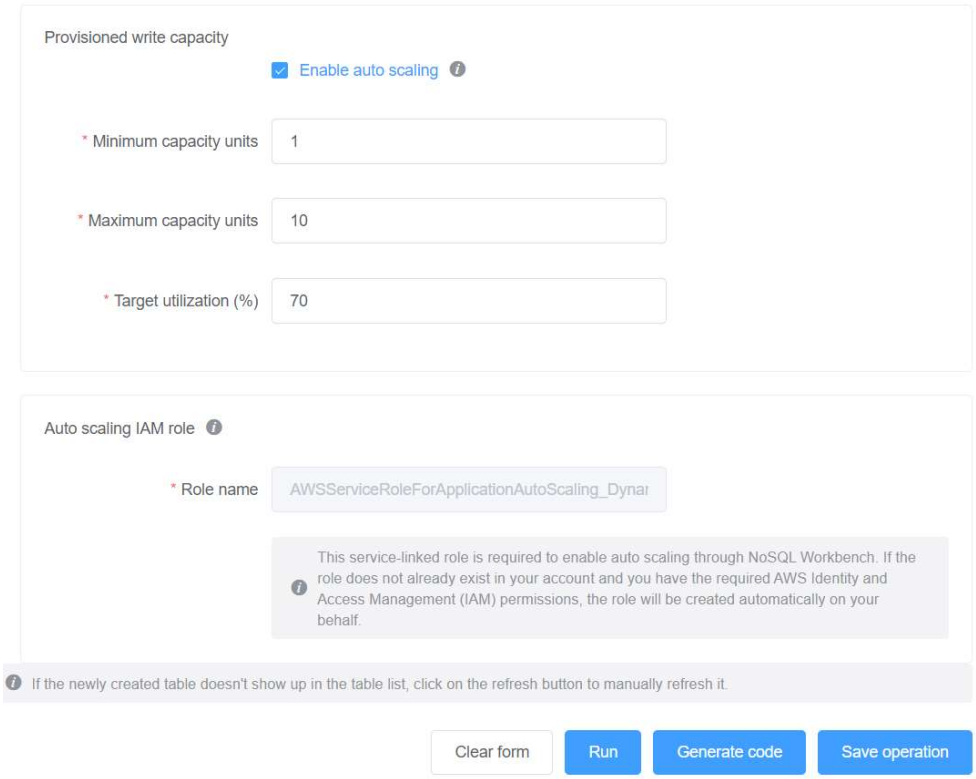


Restored values:

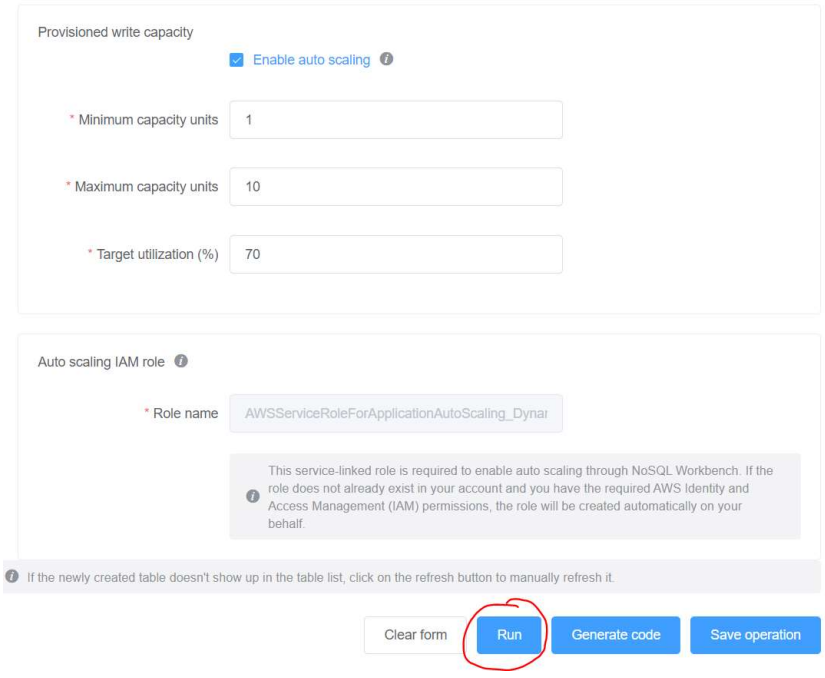

Operation builder
Connection
Name
Local DB Connection
Tables
Search table
Music
Saved operations
Search saved operat
Basketball Operation
Build operations
PartiQL operations
Interface–based operations
Operations
CreateTable
* Table name
Basketball
Primary key attributes
* Partition key
TeamName
String
Add sort key
Global secondary indexes
+ Add global secondary index
Capacity settings
Default settings
The default settings use provisioned capacity mode with auto scaling enabled on bot
Success
Saved operation loaded.


Capacity mode
Provisioned
On-demand

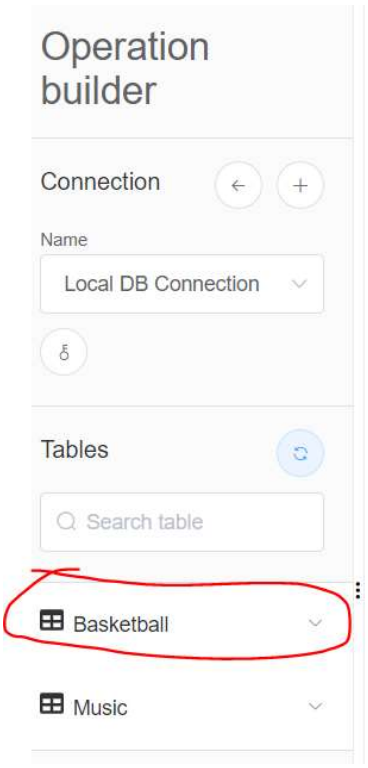

Provisioned read capacity
Enable auto scaling
* Minimum capacity units
1
* Maximum capacity units
10
* Target utilization (%)
70



8. Click Run to create the table in the database.
   Note: Autoscaling feature is not included in local DB

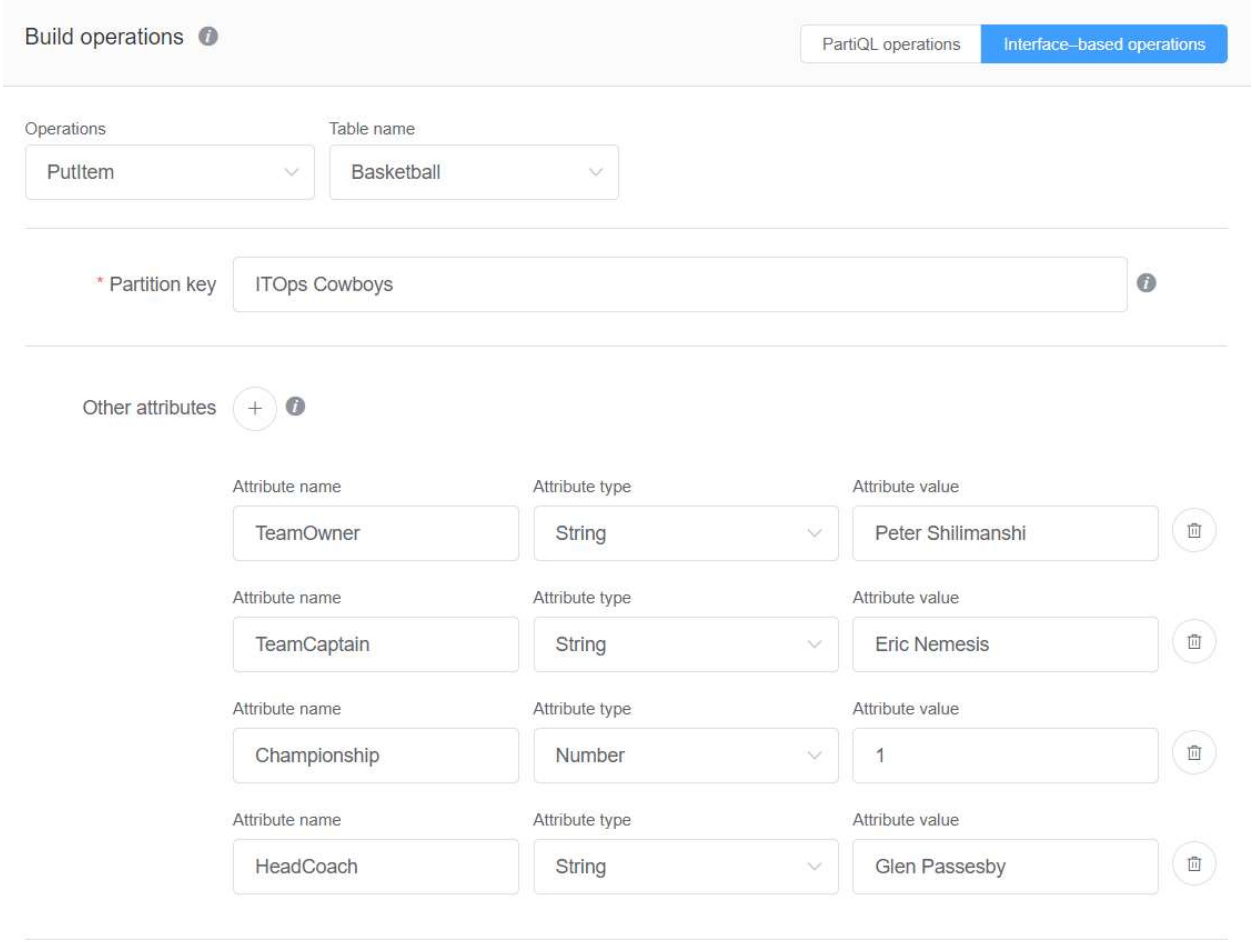


9. Click  Refresh to refresh the table list. Notice that Basketball table is already created

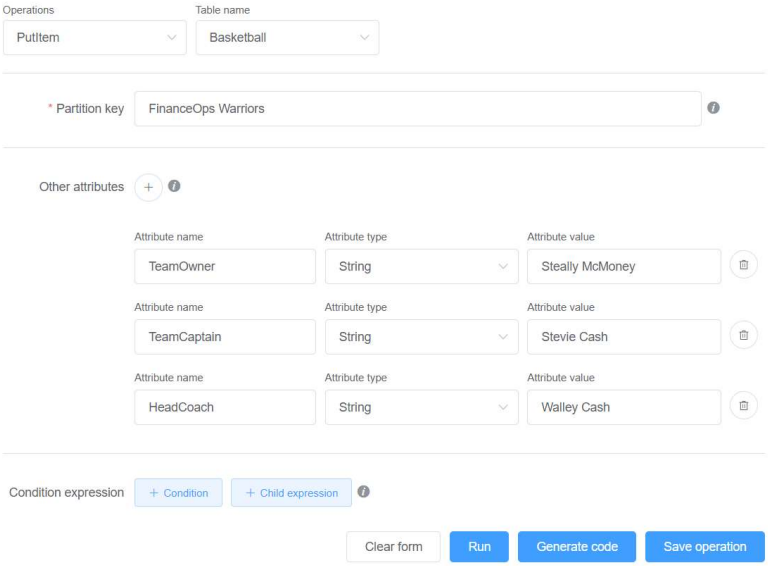


For the succeeding steps, we will no longer do the Generate Code an Save Operations as the concepts are the same as above

10. Choose PutItem operation and choose Basketball table to insert records to the table and fill-out the values to the fields.

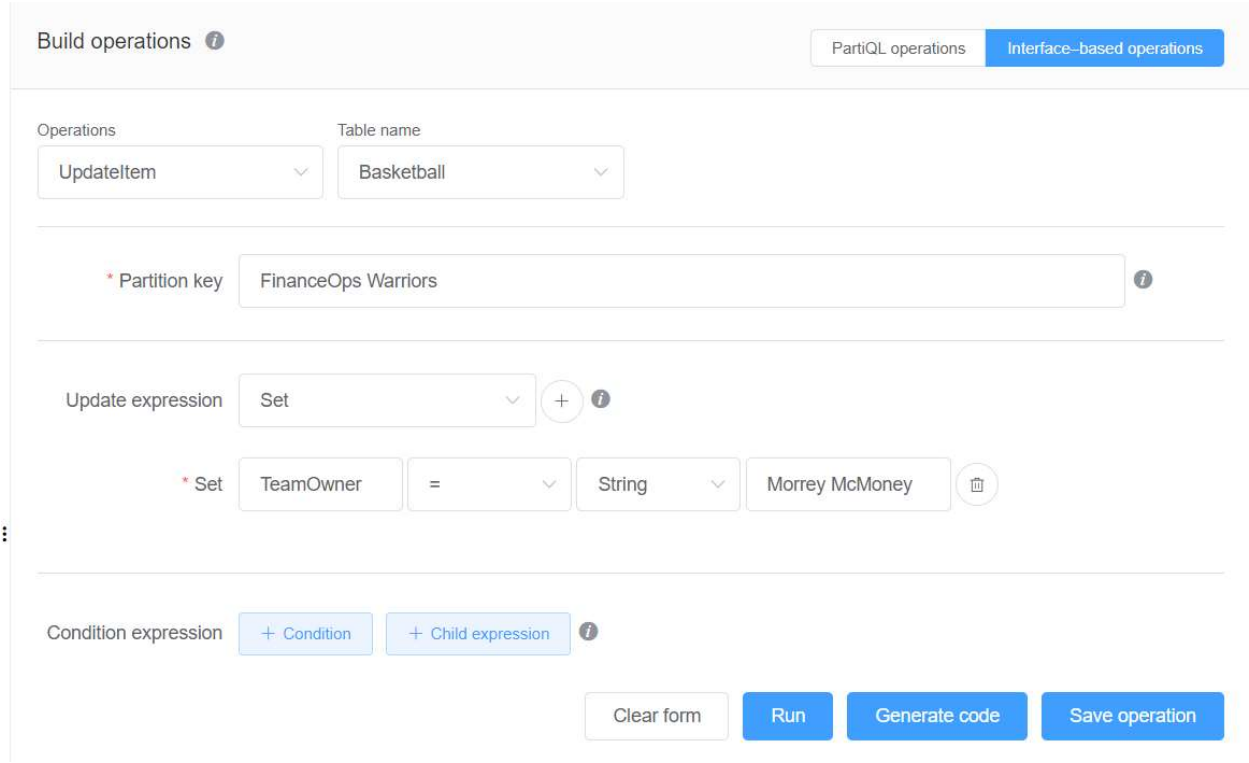


11. Click run to add record to Basketball Table and then Clear form to add another record and the fill-out new values

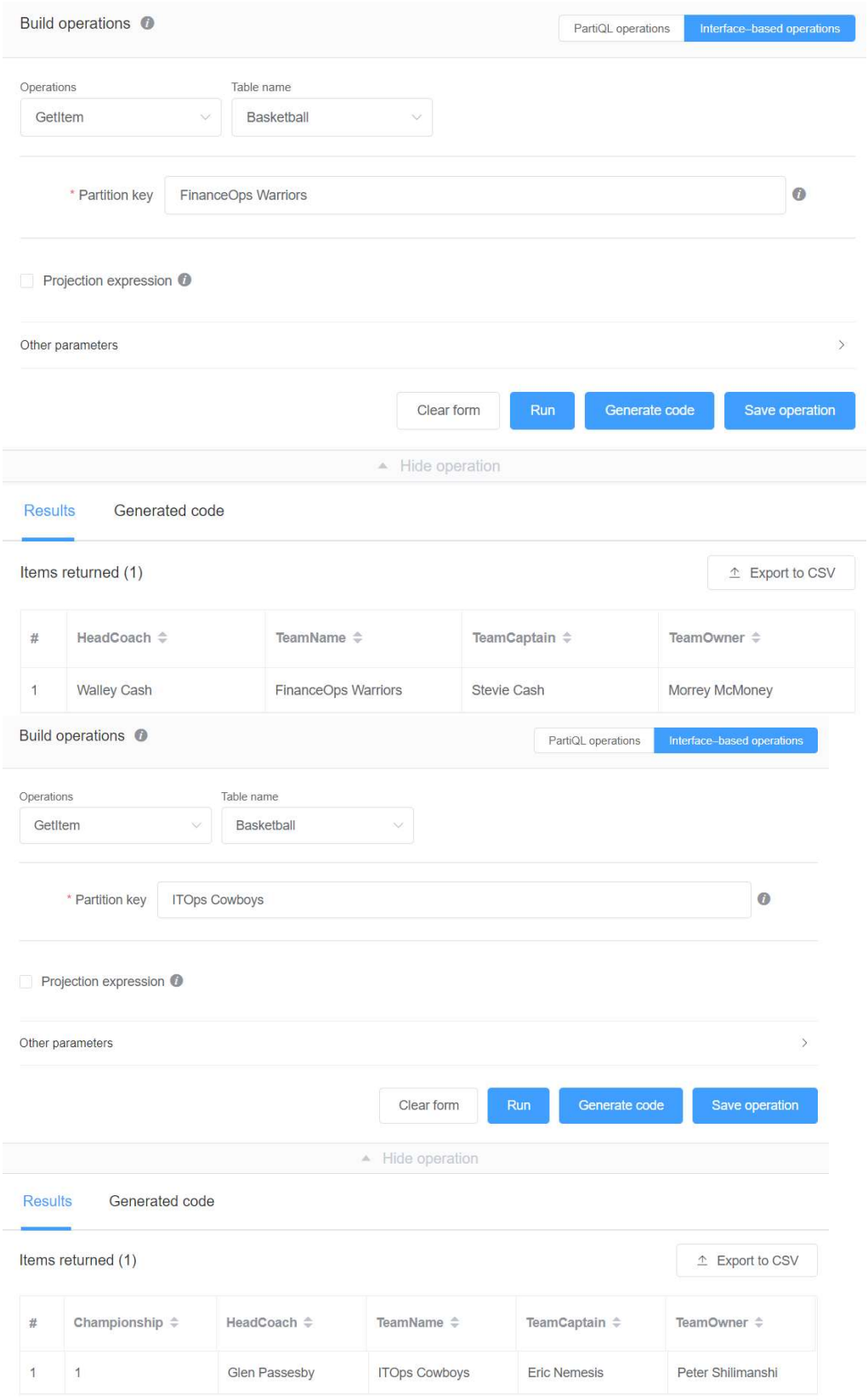


12. Click Run again to insert record to the table

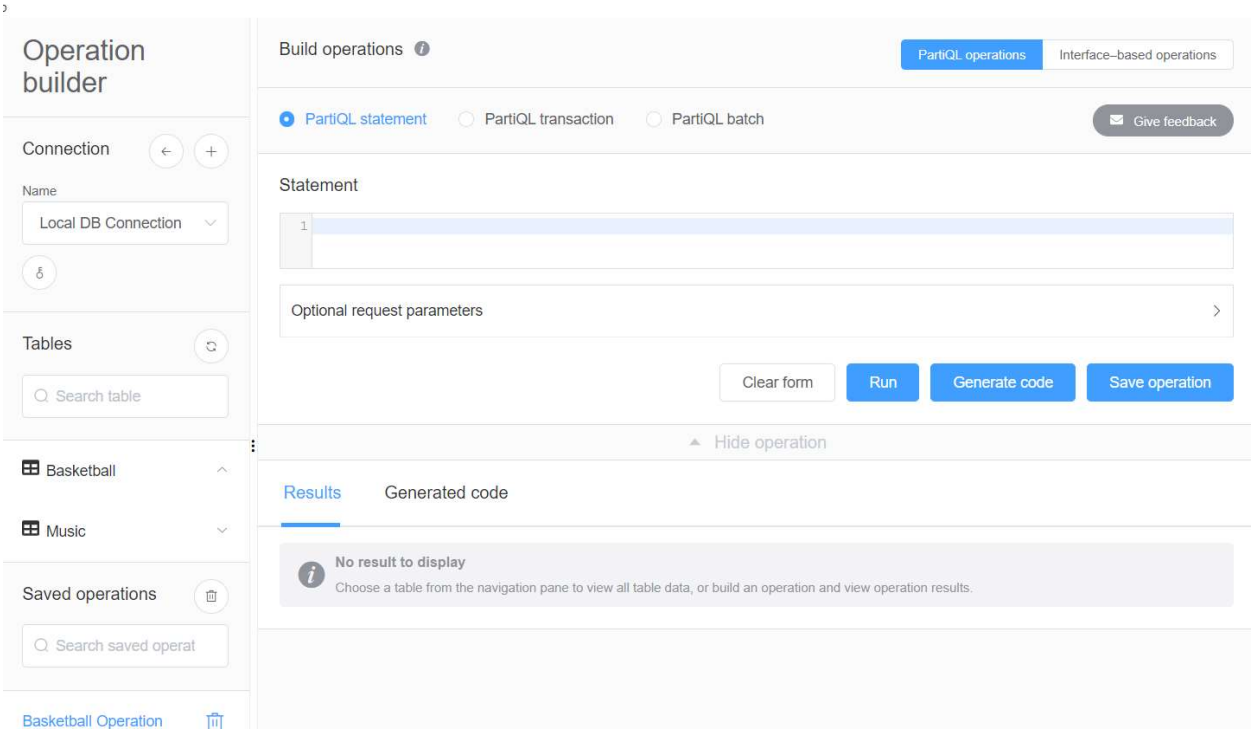
13. Click operations drop down to change to UpdateItem operation and choose table and record to update. For this example, we will update the FinanceOps TeamOwner's name. Then click Run to update the record.



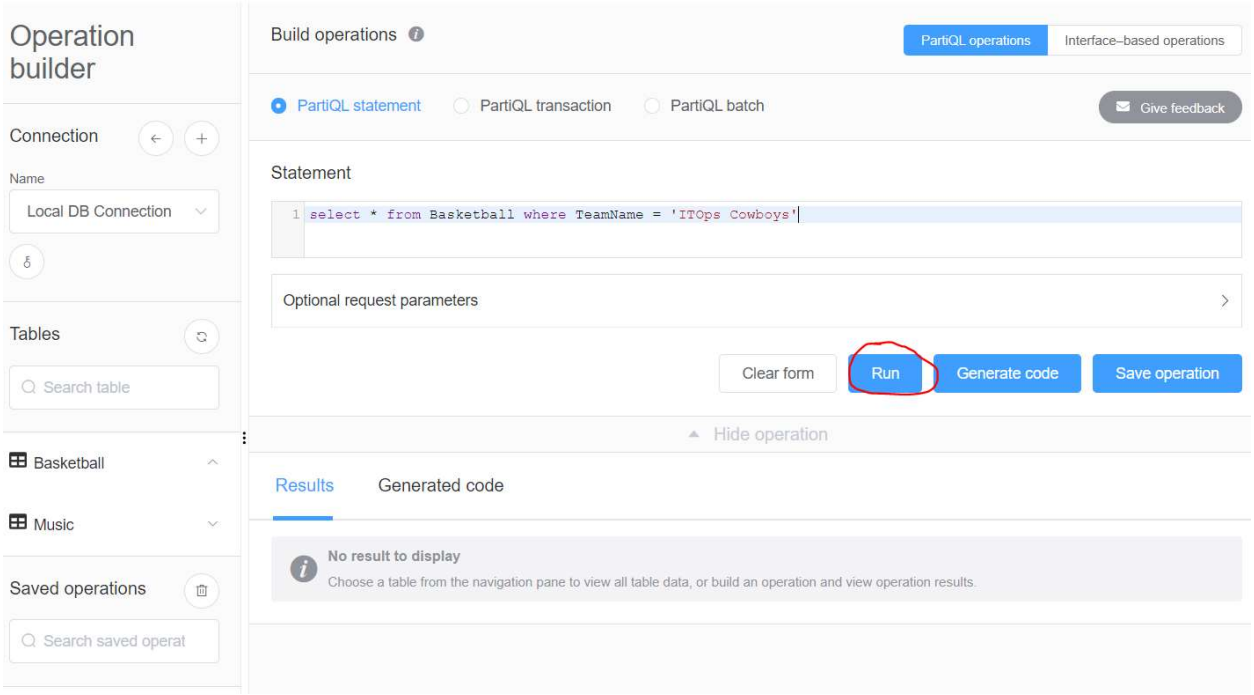
14. Then try to check the item in GetItem operation and fill-out the fields and click Run to execute the query and check if the record is correct

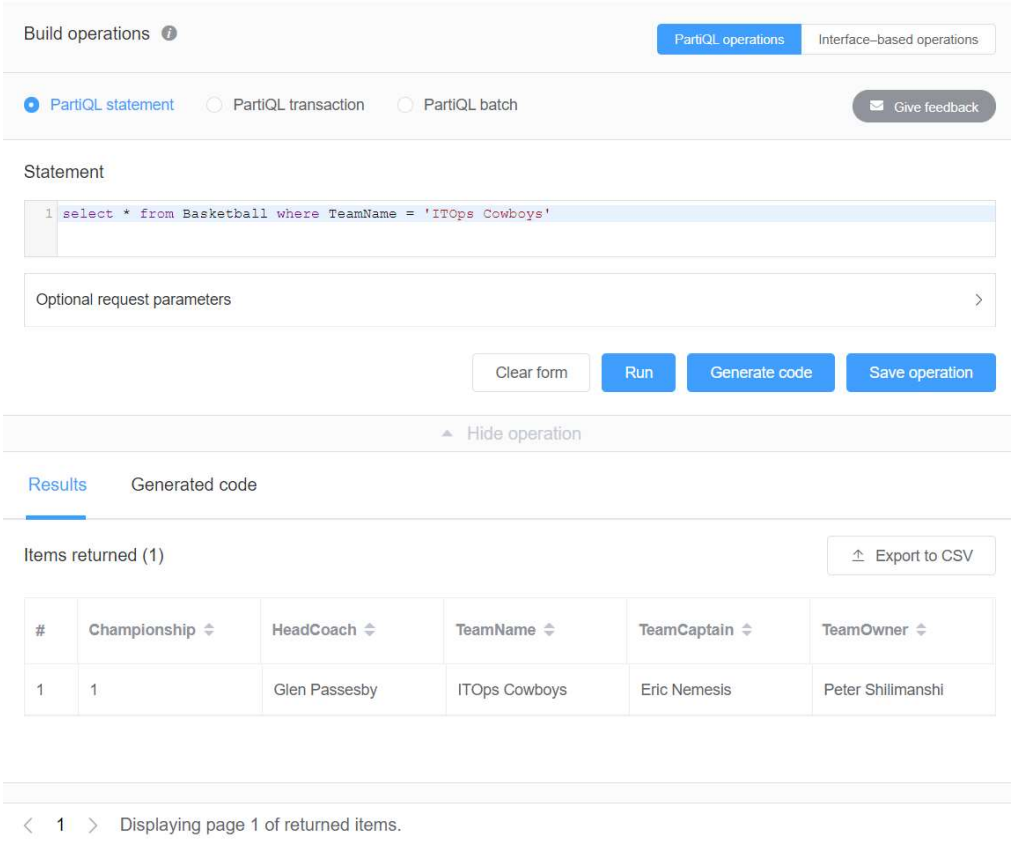


15. Then go to PartiQL operations



16. Then build a query and click Run to execute the query





No where clause: