GOKHALE EDUCATION SOCIETY'S

N. B. MEHTA (V) SCIENCE COLLEGE

ACHARYA BHISE VIDYANAGAR, BORDI

TAL - DAHANU, DIST. PALGHAR, 401701, Tel. 02528 - 254357

DEPARTMENT OF INFORMATION TECHNOLOGY AND COMPUTER SCIENCE

Certificate

Class _____ Year _____

This is to certify that the work entered in this journal is the work of Shri/Kumari _____

Of _____ division_____ Roll No. _____

Uni. Exam No. _____ has satisfactorily completed the required number of practical and worked for the 1st term / 2nd term/ both the terms of the Year _____ in the college laboratory as laid down by the university.

_____	_____	_____
Head of the Department	External Examiner	Internal Examiner Subject teacher

Date : / / 2022 Department of IT-CS

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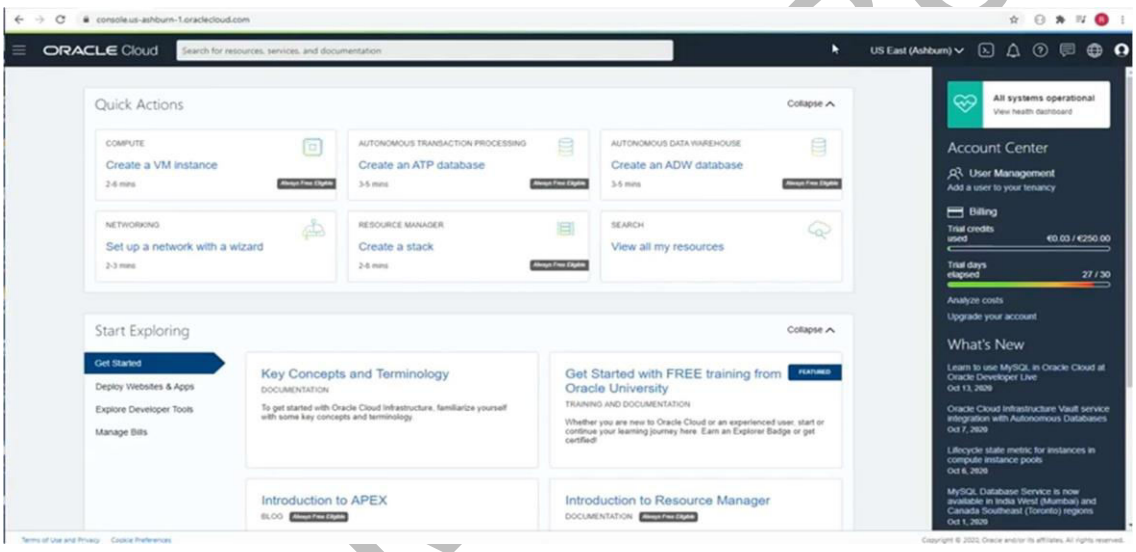
ADVANCED DATABASE TECHNIQUES PRACTICAL

Practical No. 1

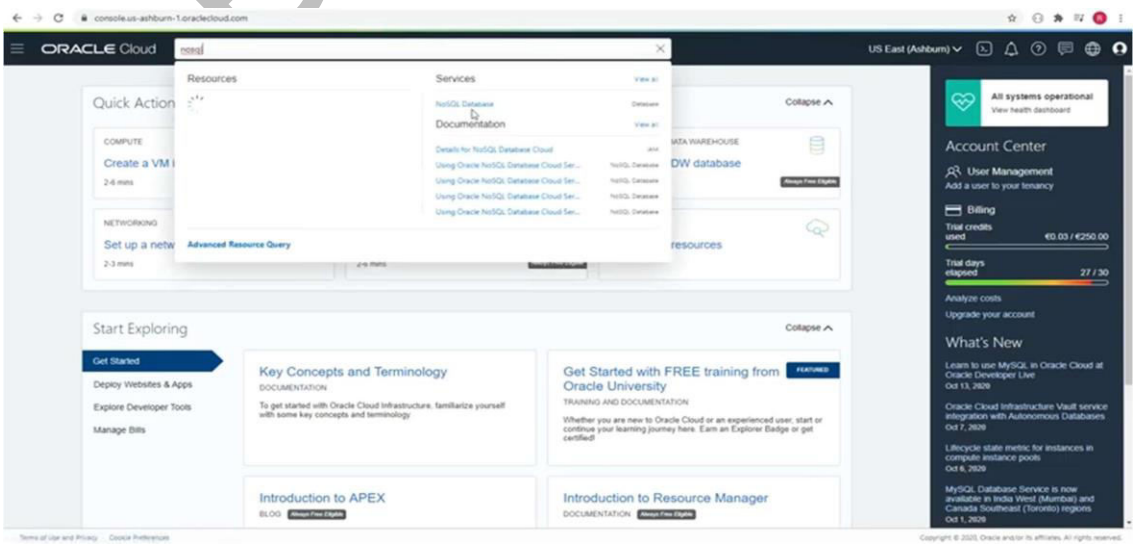
Create different types that include attributes and methods. Define tables for these types by adding a sufficient number of tuples. Demonstrate insert, update and delete operations on these tables. Execute queries on them.

Solution :

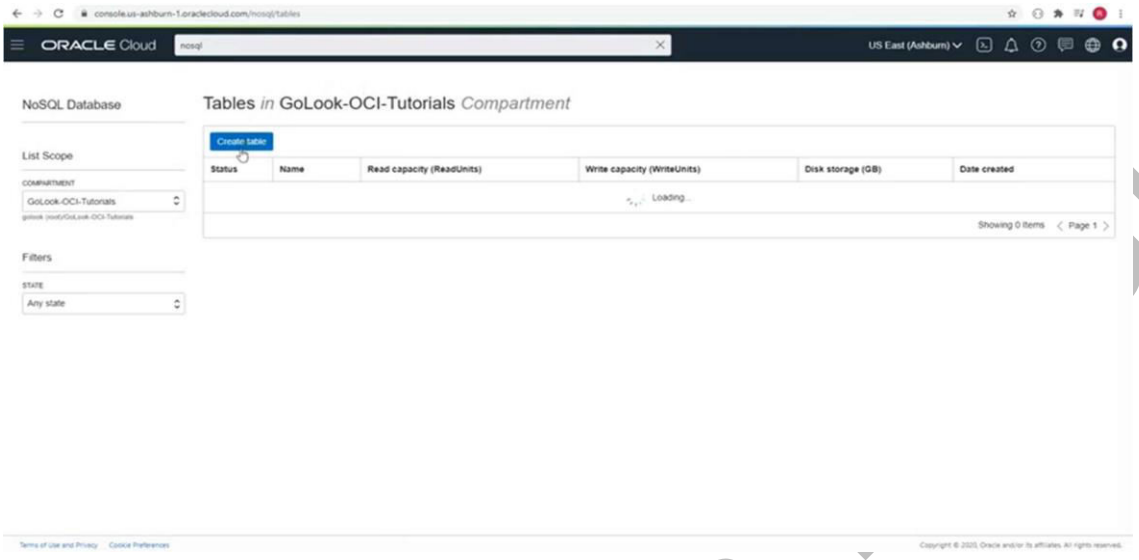
Step 1 : Start ⟶ www.oracle.com ⟶ Sign in 0R Sign up



Step 2 : In search box, type Nosql and in serives select Nosql database

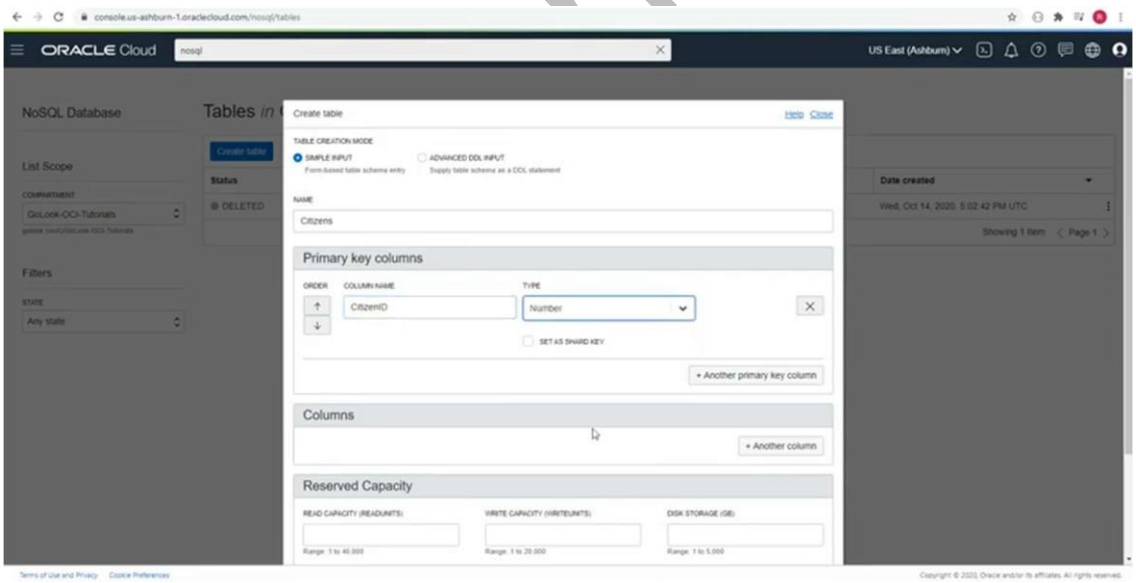


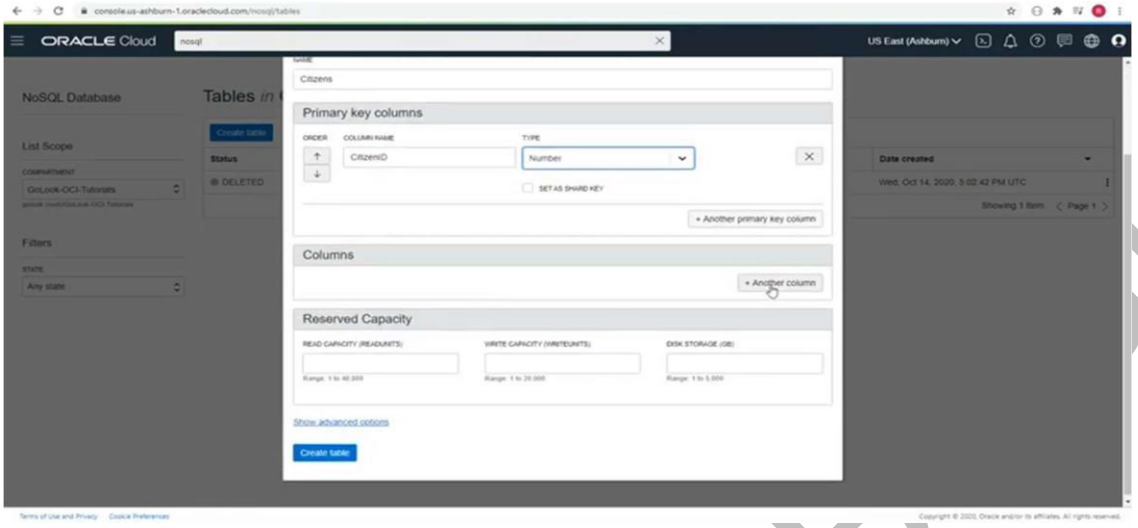
Step 3 : Click on Create Table.

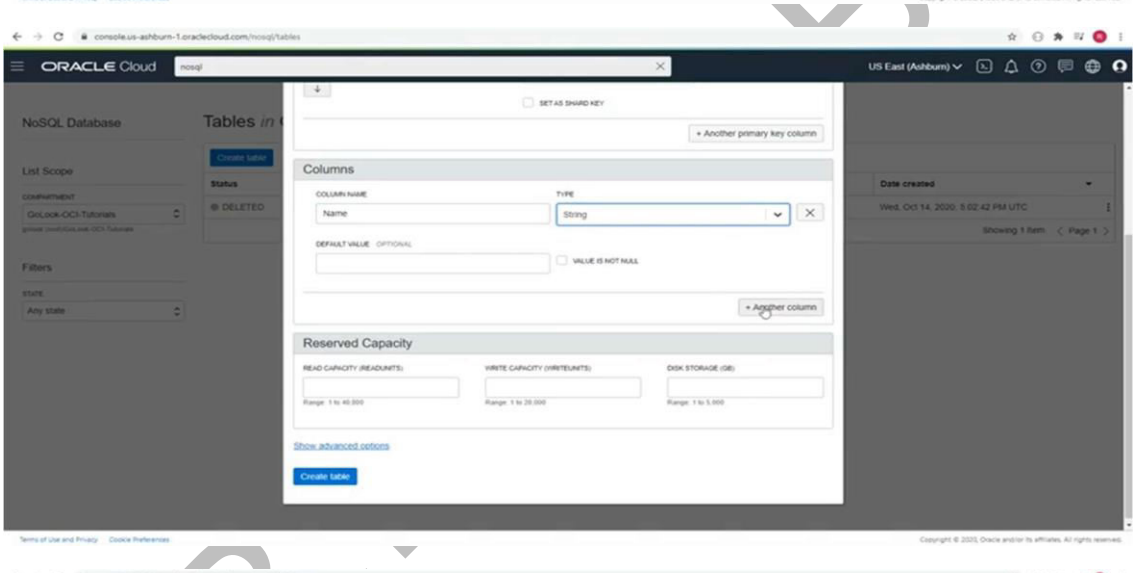


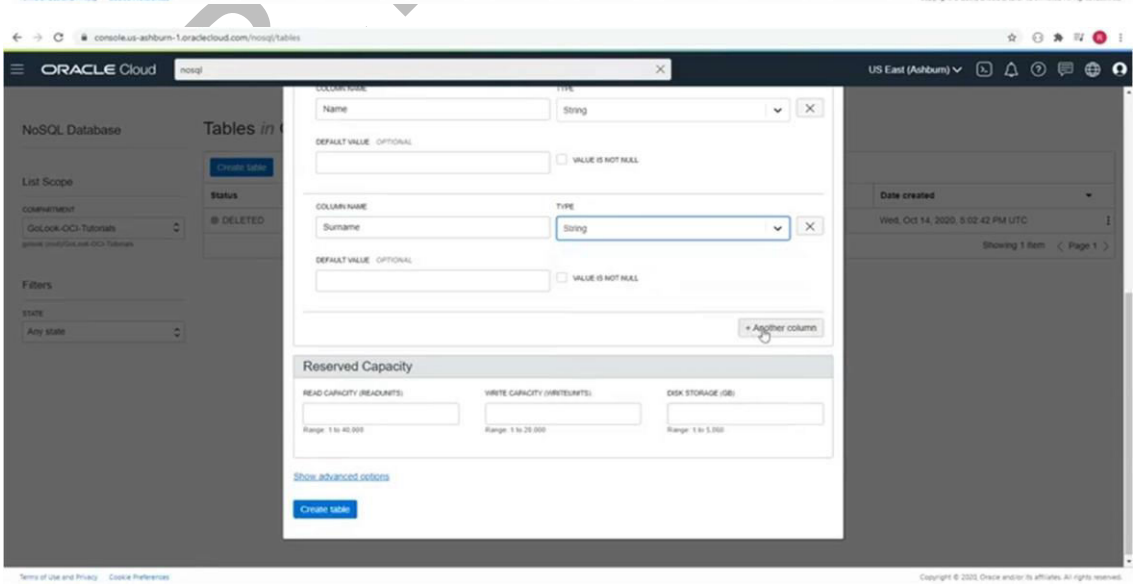
Step 4 : Mention Name of Table and create columns as required.

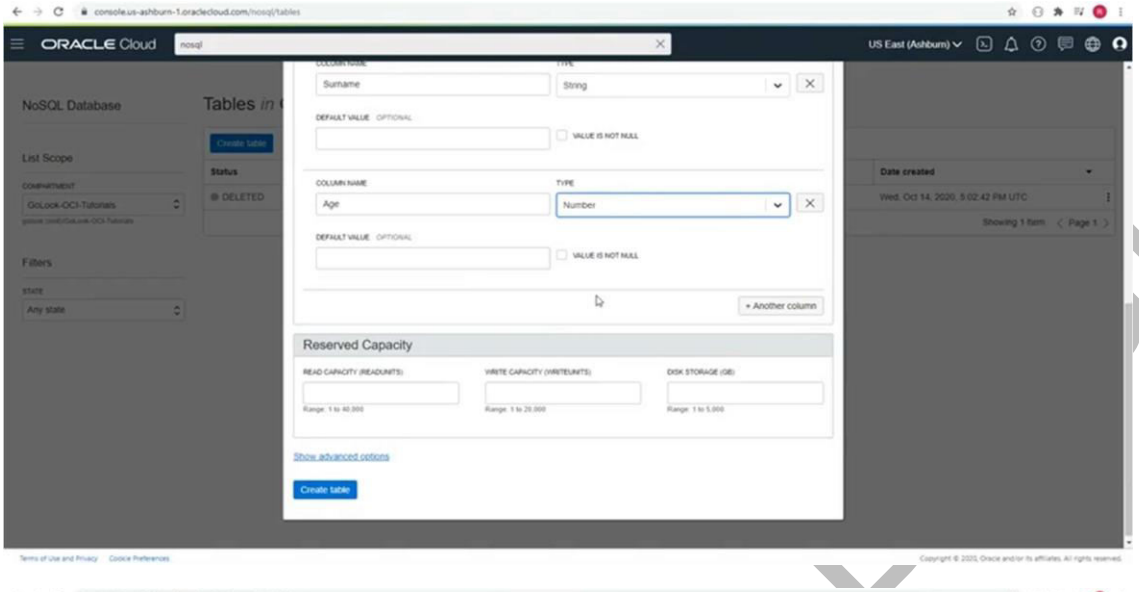
Type name of columns and their data types in respective box.




ORACLE Cloud
nosql
US East (Ashburn)
NoSQL Database
Tables in
List Scope
Filters
Any state
Citizens
Primary key columns
ORDER
COLUMN NAME
TYPE
CitizenID
Number
SET AS SHARD KEY
+ Another primary key column
Columns
+ Another column
Reserved Capacity
READ CAPACITY (READUNITS)
WRITE CAPACITY (WRITEUNITS)
DISK STORAGE (GB)
Show advanced options
Create table


ORACLE Cloud
nosql
US East (Ashburn)
NoSQL Database
Tables in
List Scope
Filters
Any state
SET AS SHARD KEY
+ Another primary key column
Columns
COLUMN NAME
TYPE
Name
String
DEFAULT VALUE
VALUE IS NOT NULL
+ Another column
Reserved Capacity
READ CAPACITY (READUNITS)
WRITE CAPACITY (WRITEUNITS)
DISK STORAGE (GB)
Show advanced options
Create table


ORACLE Cloud
nosql
US East (Ashburn)
NoSQL Database
Tables in
List Scope
Filters
Any state
Name
String
DEFAULT VALUE
VALUE IS NOT NULL
Surname
String
+ Another column
Reserved Capacity
READ CAPACITY (READUNITS)
WRITE CAPACITY (WRITEUNITS)
DISK STORAGE (GB)
Show advanced options
Create table



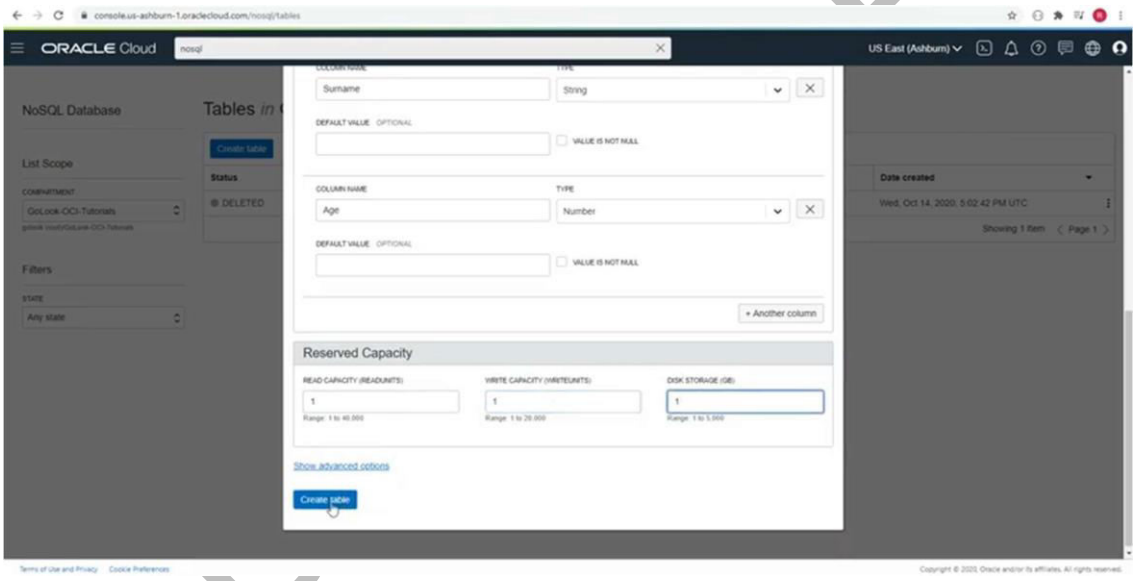
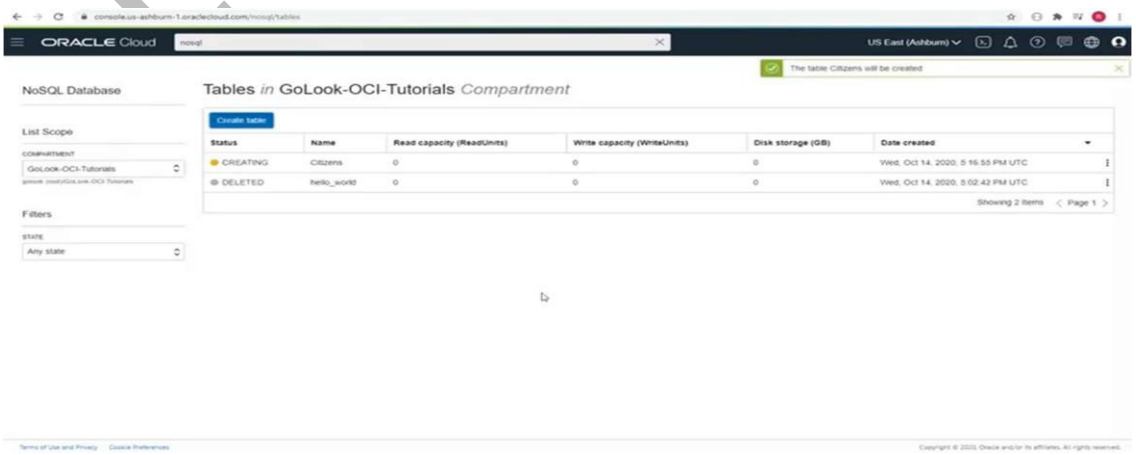
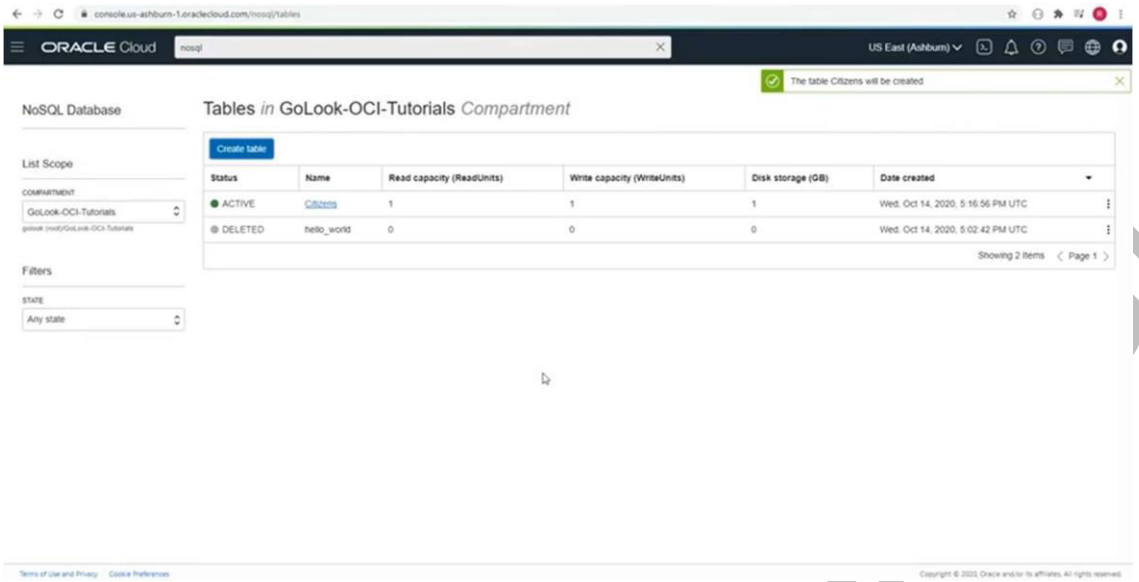
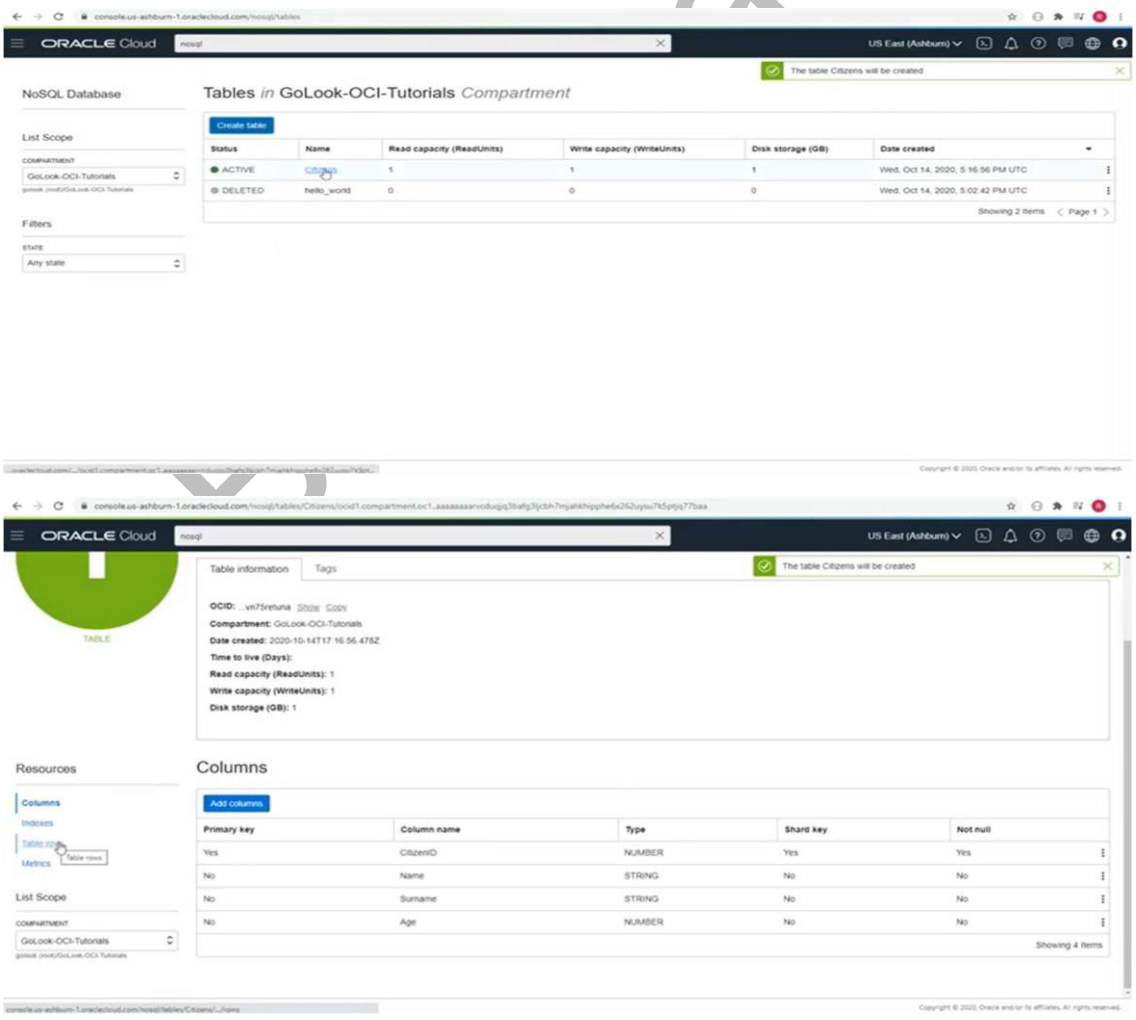


Table is created.

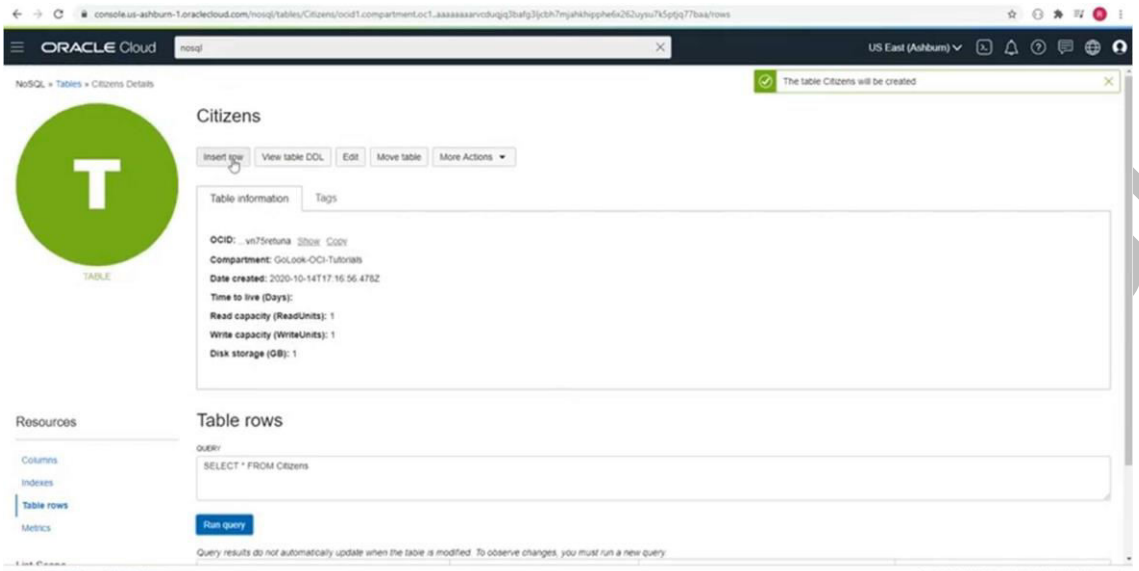


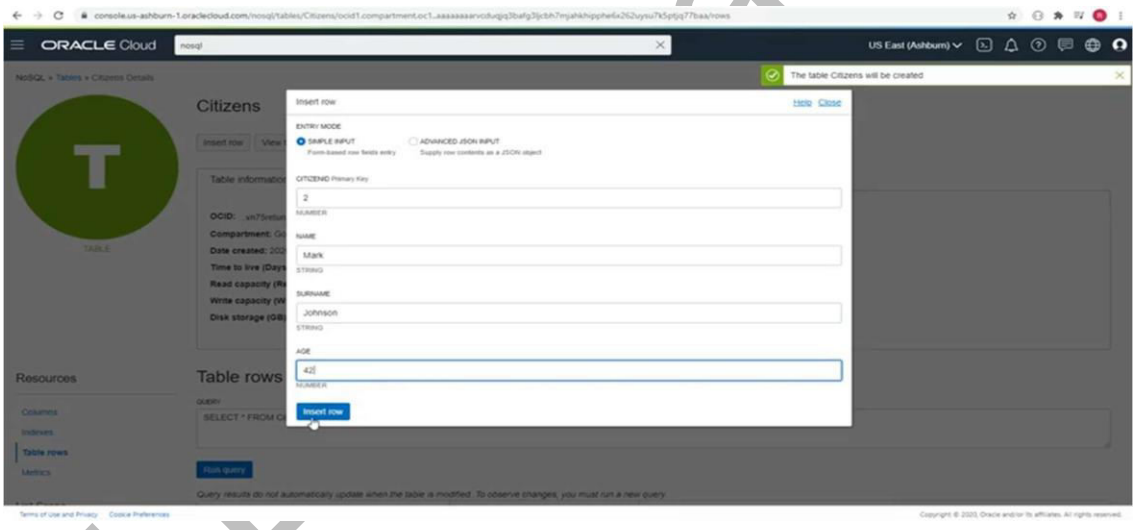


Step 5 : Click on Table Name.

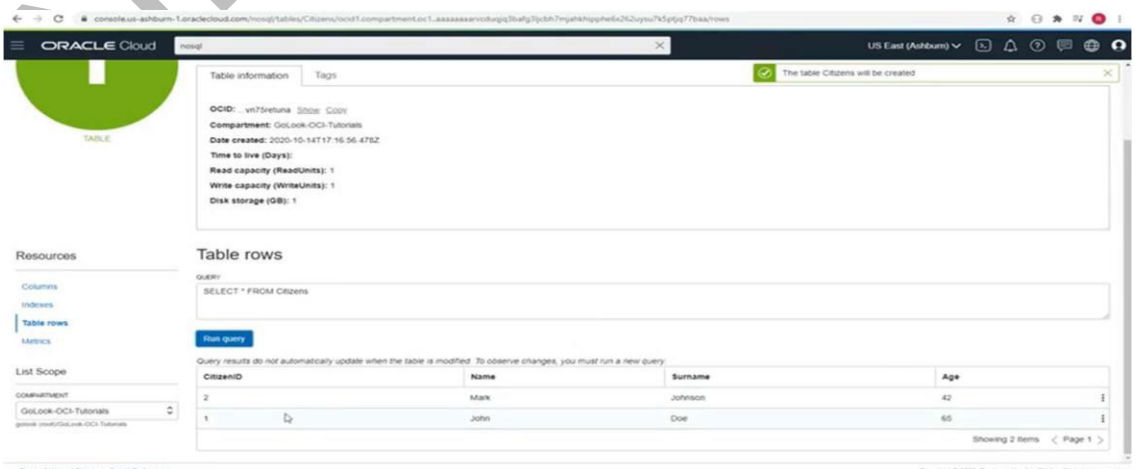


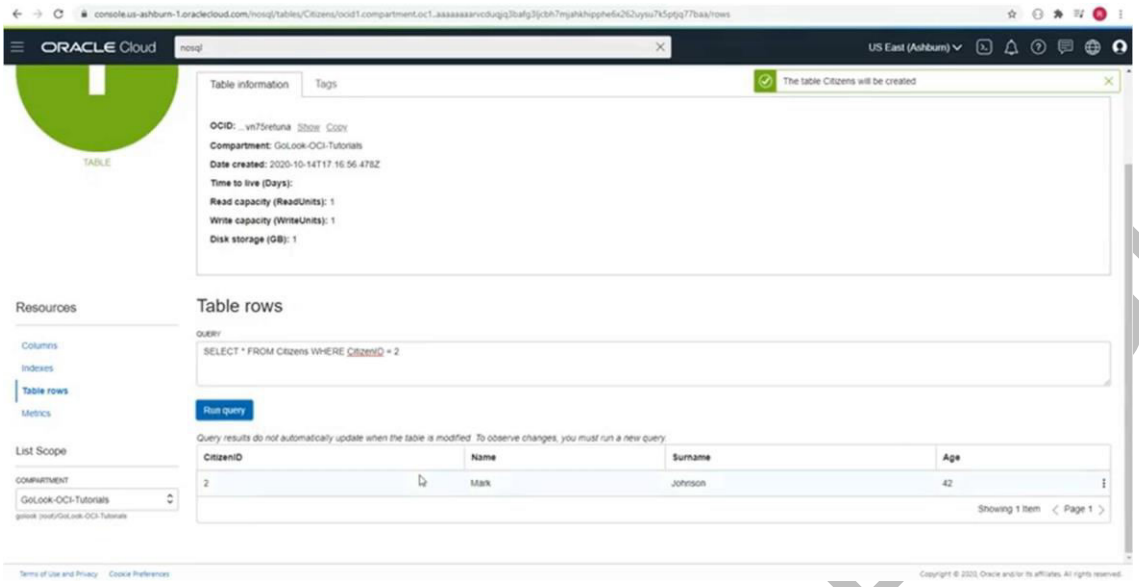
Step 6 : To insert rows , click on Insert Row from above option.



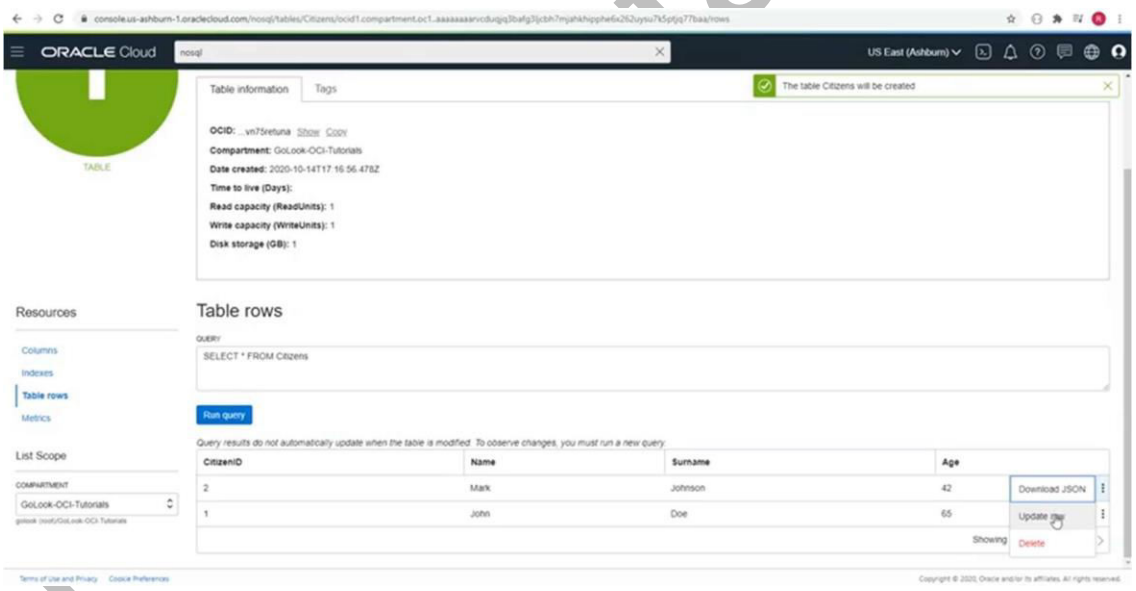


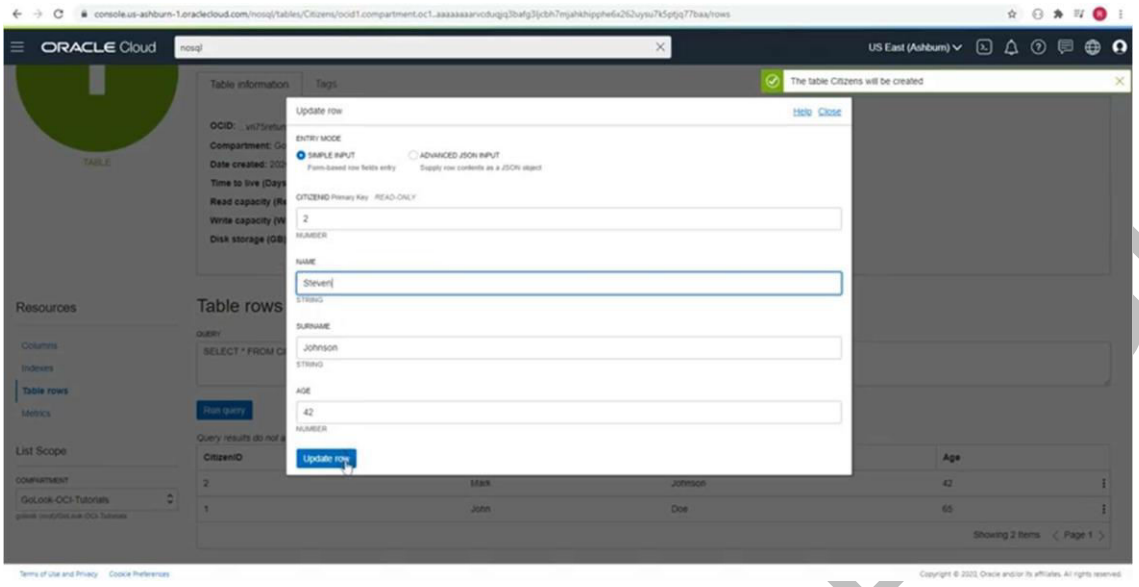
Step 7 : Run Queries.



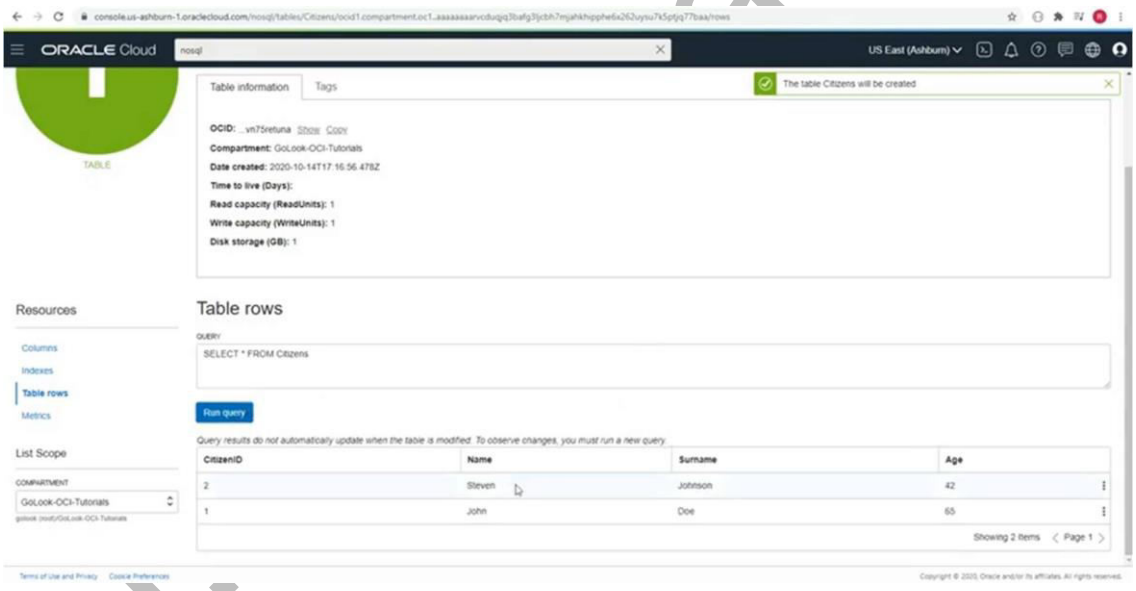


Step 8 : To Update Table

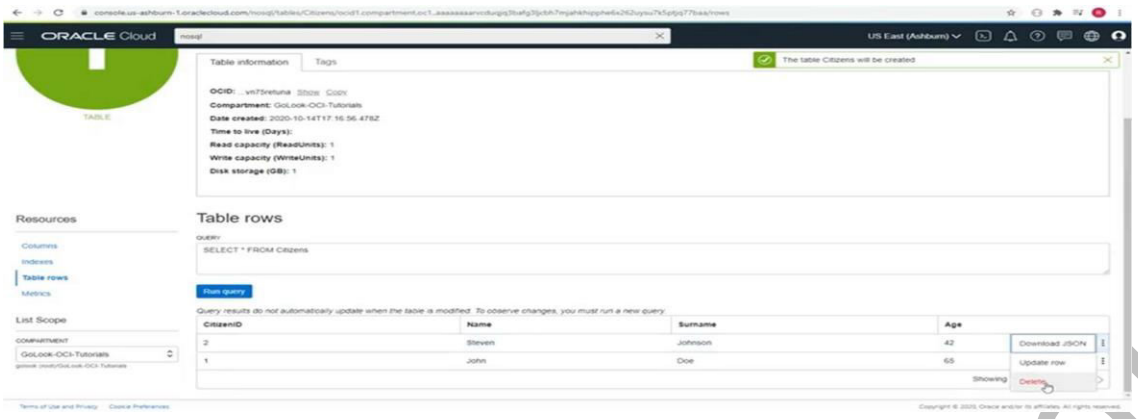


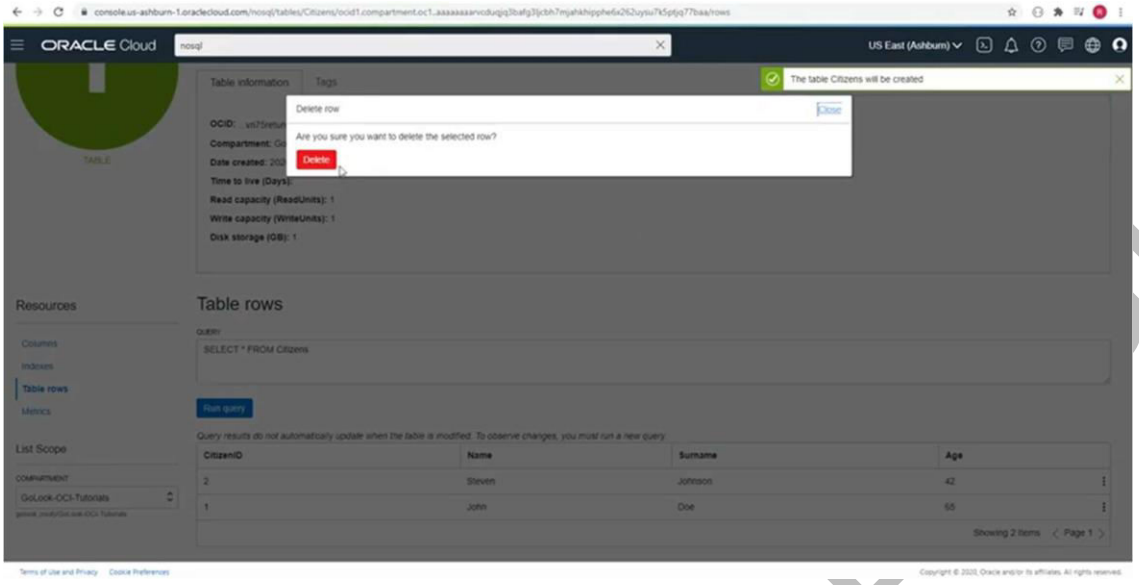


After updating

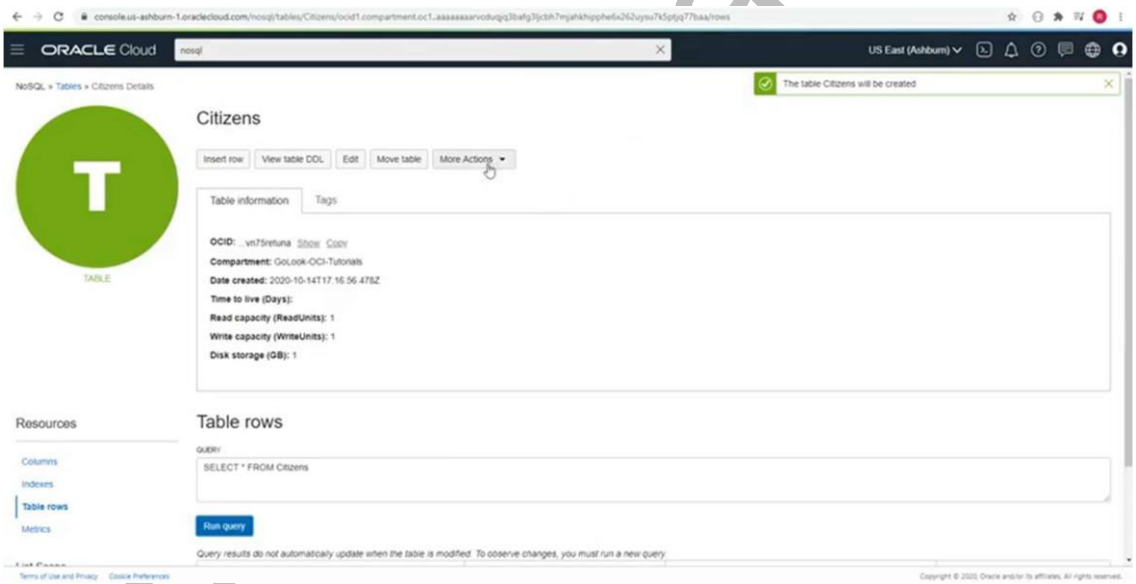


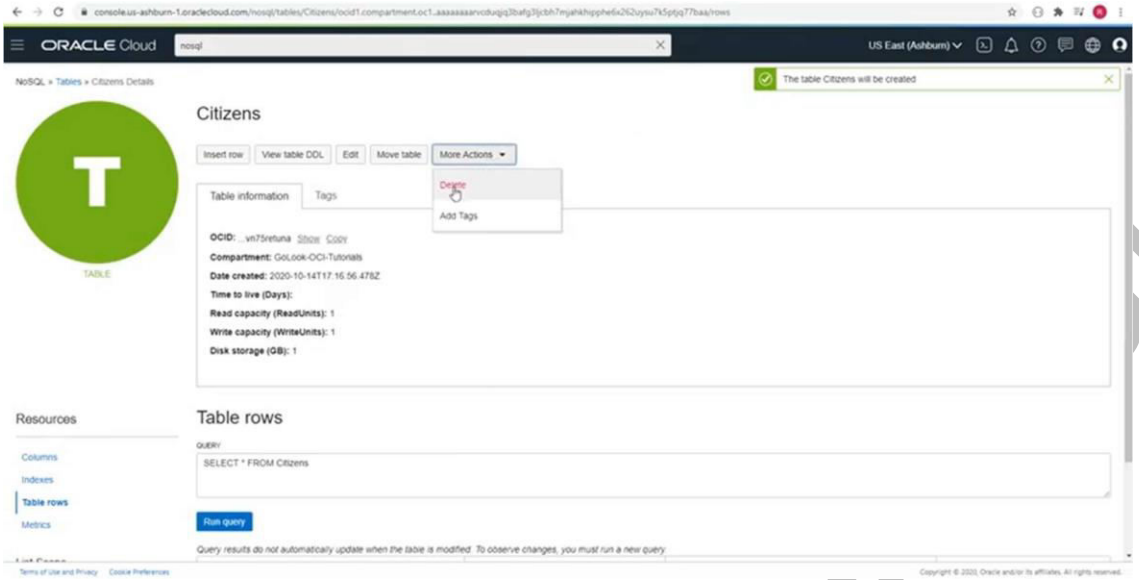
Step 9 : For deleting row.

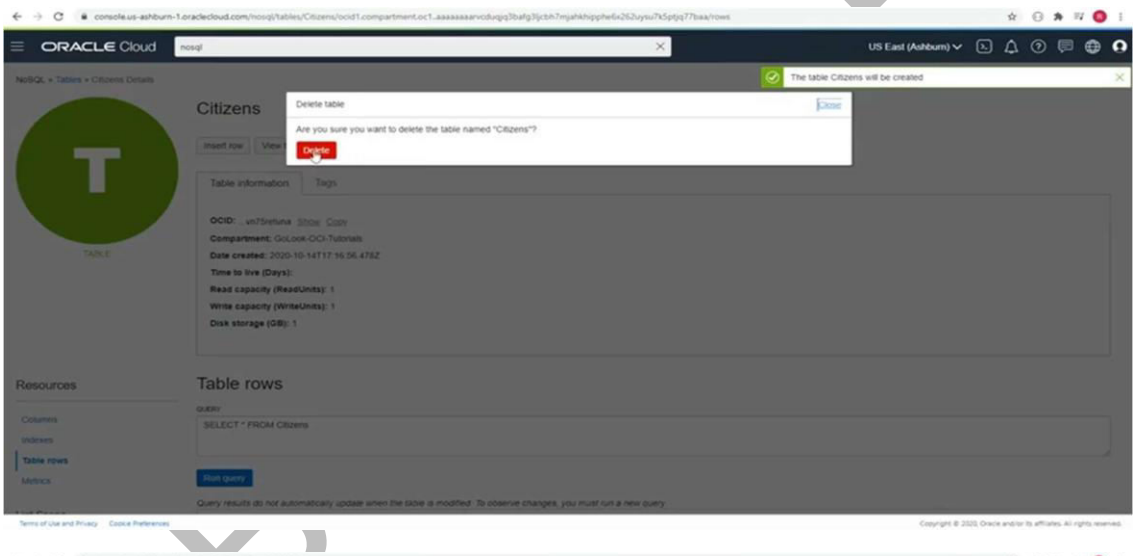


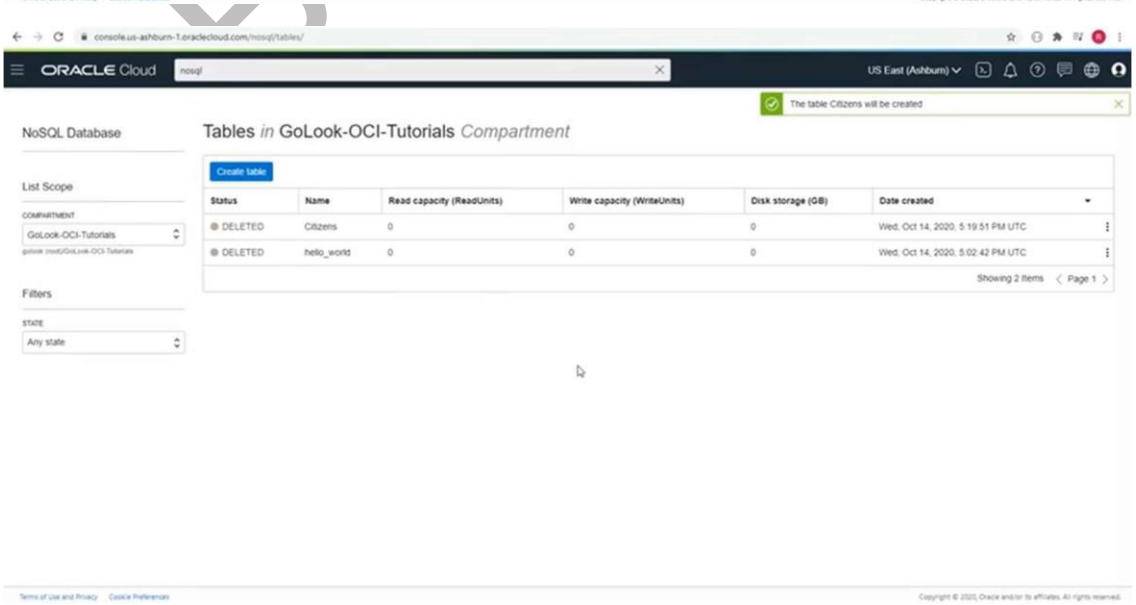


Step 10 : For deleting Table




ORACLE Cloud
nosql
US East (Ashburn)
NoSQL » Tables » Citizens Details
The table Citizens will be created
Citizens
Insert row
View table DDL
Edit
Move table
More Actions
Delete
Add Tags
Table information
Tags
OCID:
Compartment: GoLook-OCI-Tutorials
Date created: 2020-10-14T17:16:56.478Z
Time to live (Days):
Read capacity (ReadUnits): 1
Write capacity (WriteUnits): 1
Disk storage (GB): 1
Resources
Columns
Indexes
Table rows
Metrics
Table rows
QUERY
SELECT * FROM Citizens
Run query
Query results do not automatically update when the table is modified. To observe changes, you must run a new query.


ORACLE Cloud
nosql
US East (Ashburn)
The table Citizens will be created
Citizens
Delete table
Are you sure you want to delete the table named "Citizens"?
Delete
Table information
Tags
Compartment: GoLook-OCI-Tutorials
Date created: 2020-10-14T17:16:56.478Z
Read capacity (ReadUnits): 1
Write capacity (WriteUnits): 1
Disk storage (GB): 1
Resources
Table rows
SELECT * FROM Citizens

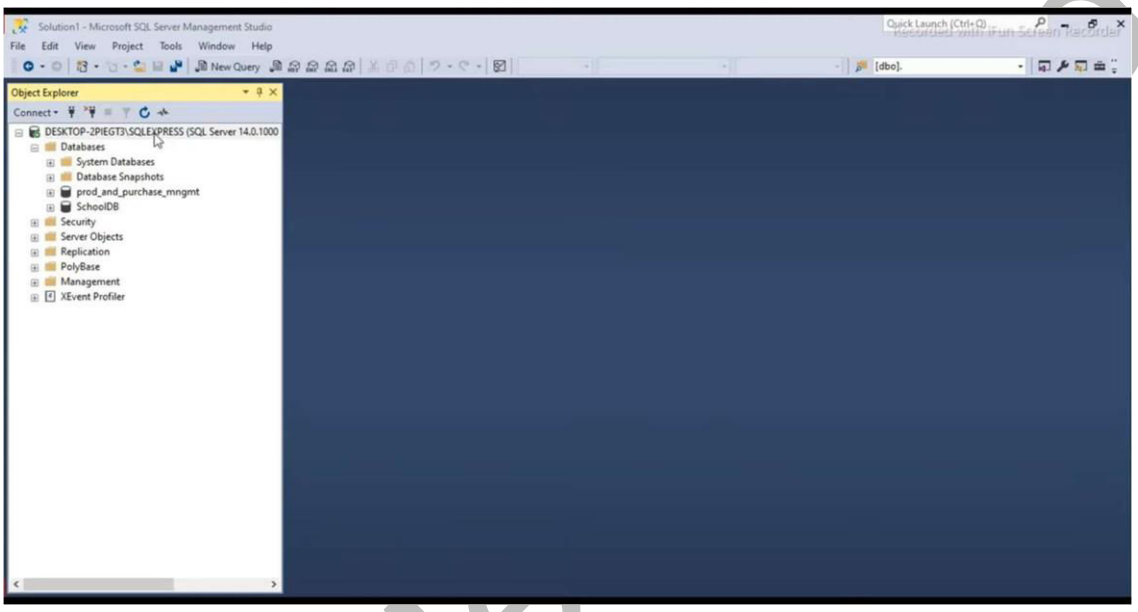

ORACLE Cloud
nosql
US East (Ashburn)
The table Citizens will be created
NoSQL Database
List Scope
COMPARTMENT
GoLook-OCI-Tutorials
Filters
STATE
Any state
Tables in GoLook-OCI-Tutorials Compartment
Create table
Status
Name
Read capacity (ReadUnits)
Write capacity (WriteUnits)
Disk storage (GB)
Date created
DELETED
Citizens
0
0
0
Wed, Oct 14, 2020, 5:19:51 PM UTC
DELETED
hello_world
0
0
0
Wed, Oct 14, 2020, 5:02:42 PM UTC
Showing 2 items
Page 1

Practical No 2

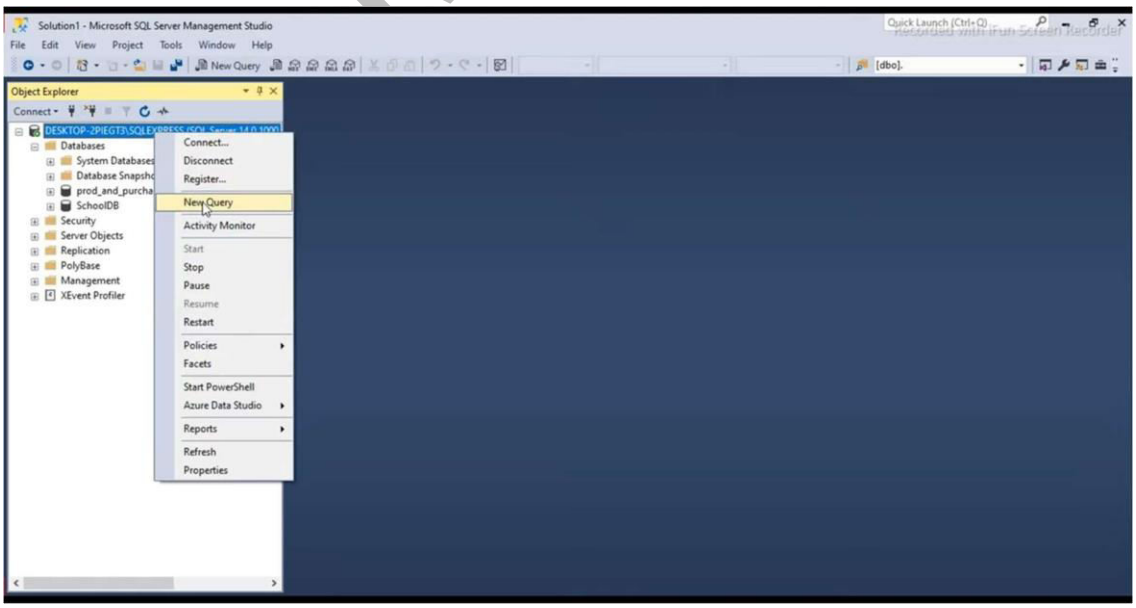
Create an XML database and demonstrate insert, update and delete operations on these tables. Issue queries on it.

Solution :

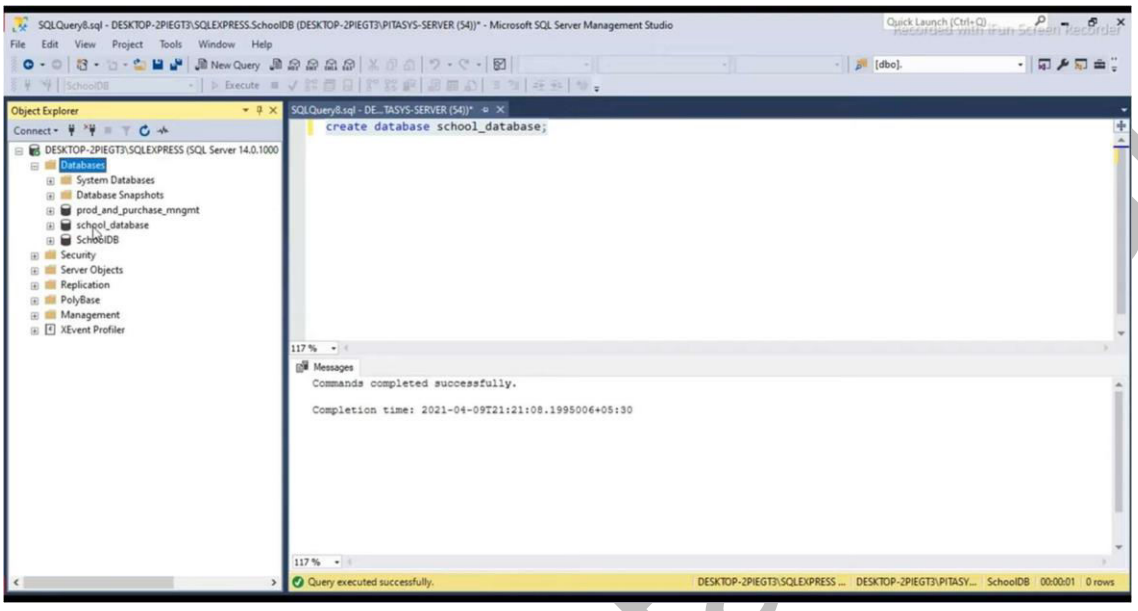
Step 1 : Open Microsoft SQL Server Management Studio.



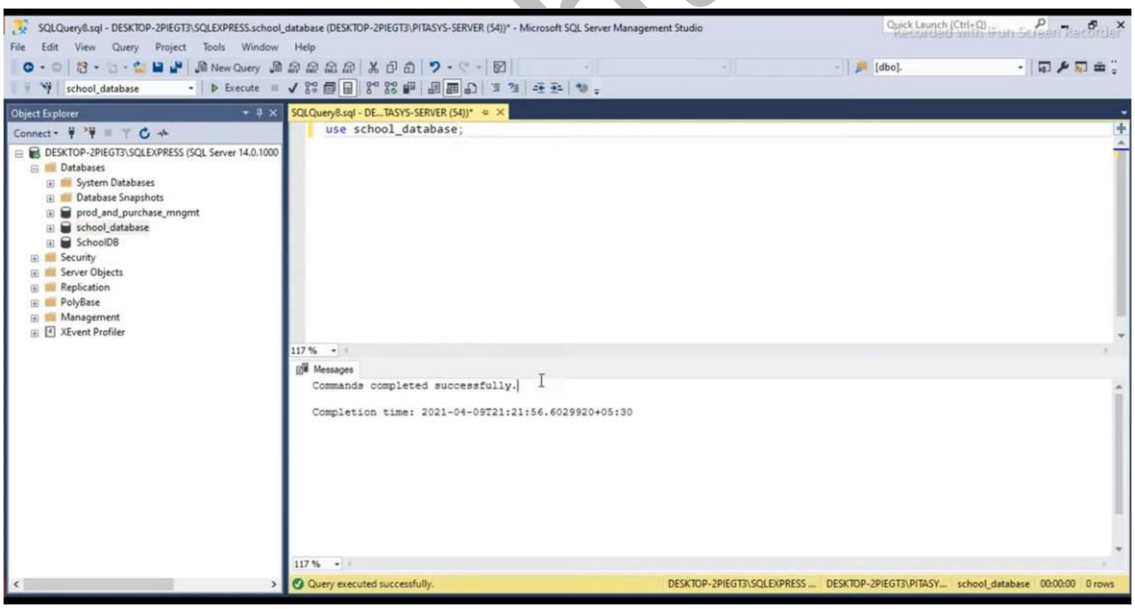
Step 2 : Right click on Device name and then select New Query.



Step 3 : To create database, pass command **create database** and type name of database which you want to create and then execute the query.



Step 4 : To create table , first set the database which you want by using **use** command.



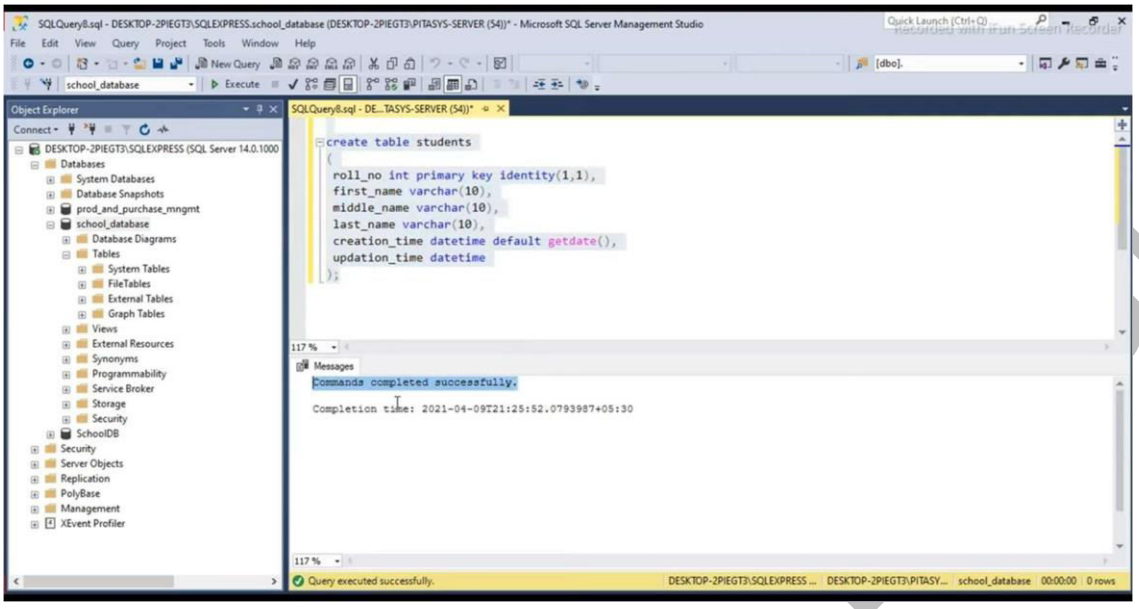
Step 5 : For creating table , pass command **create table** and name of table.

Create columns as per requirement as shown below .

To insert columns write query in round brackets() and execute it.

Eg : ***insert into students*** (column_names)

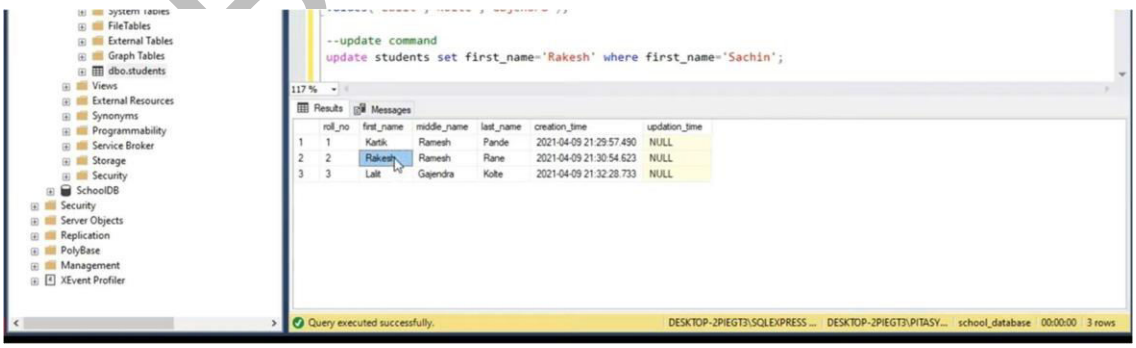
values(‘Lalit’);



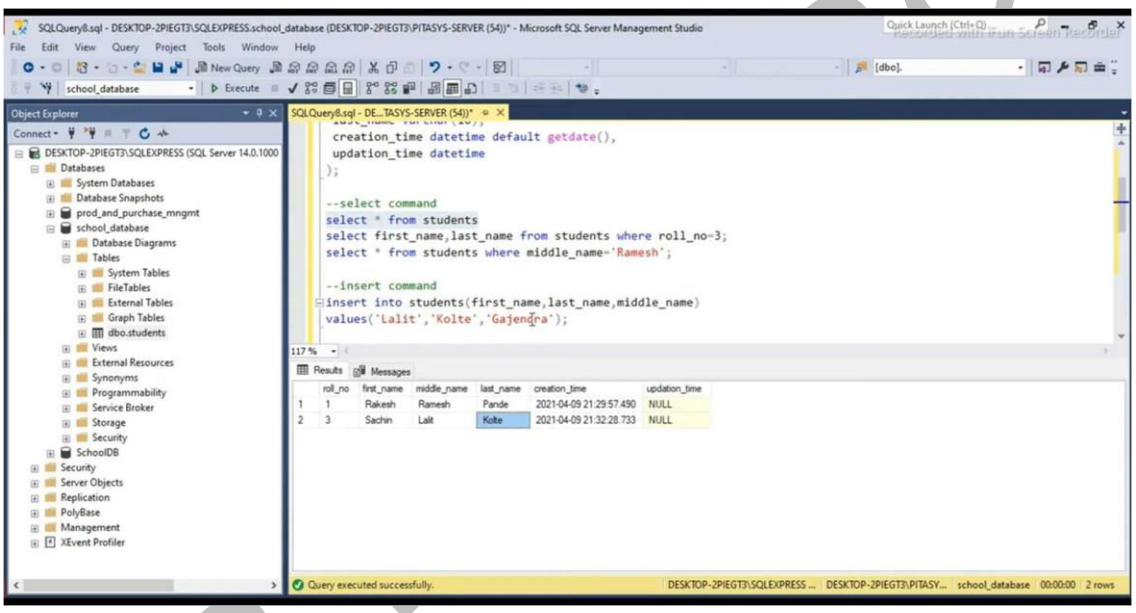
Once you inserted all columns then execute the query , a table is created.

Step 6 : To view the table , execute command **select * from students**

Step 7 : To Update table use **update command.**



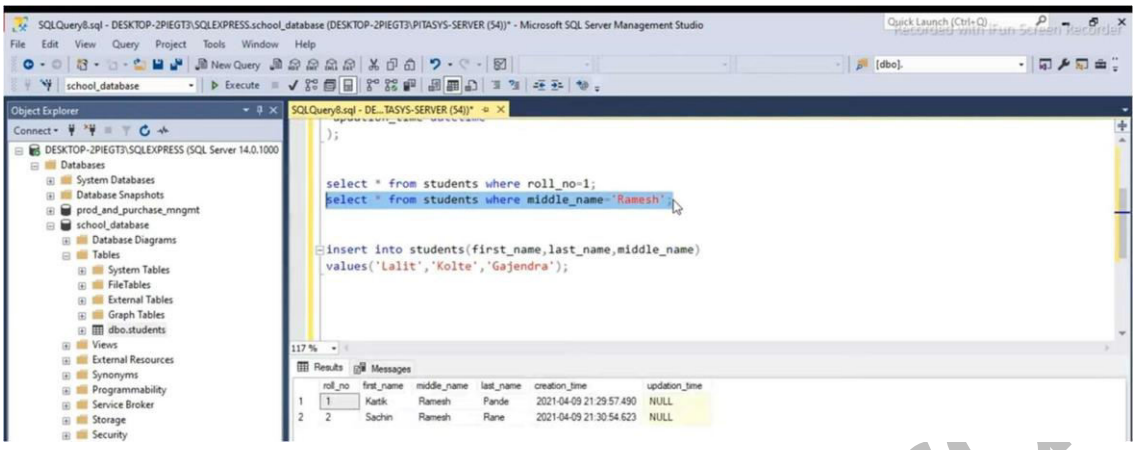
Step 8 : To delete column use delete command.



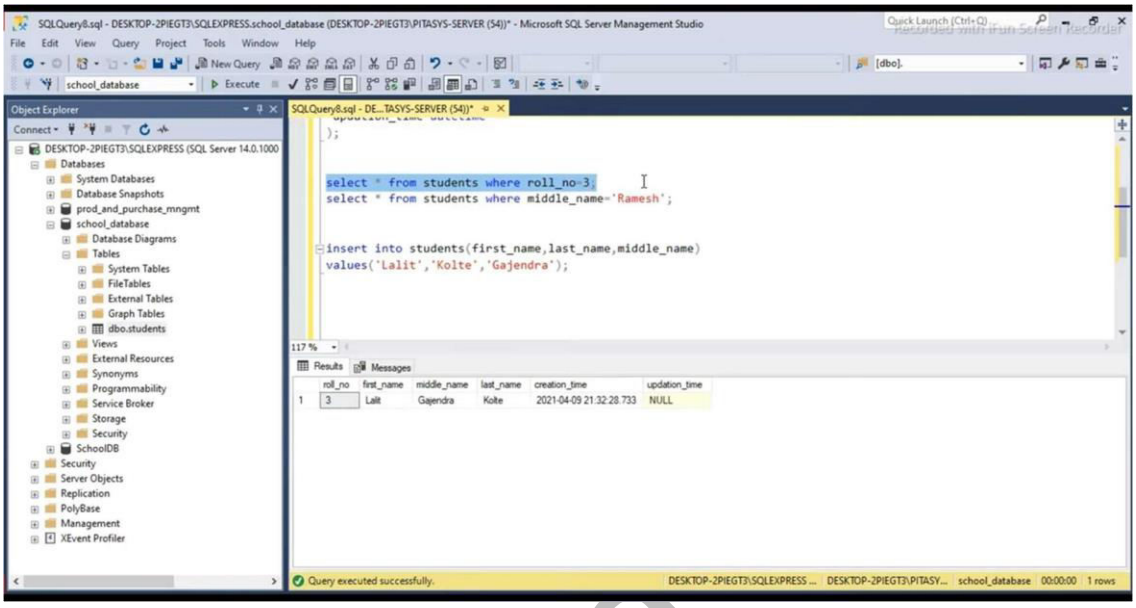
Step 9 : For executing queries

For eg :

1. ***Select from*** student ***where*** middle_name= 'Ramesh';


SQLQuery8.sql - DESKTOP-2PIEGT3\SQLEXPRESS.school_database (DESKTOP-2PIEGT3\PITASYS-SERVER (54))* - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
New Query
school_database
Execute
Object Explorer
Connect
DESKTOP-2PIEGT3\SQLEXPRESS (SQL Server 14.0.1000
Databases
System Databases
Database Snapshots
prod_and_purchase_mngmt
school_database
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.students
Views
External Resources
Synonyms
Programmability
Service Broker
Storage
Security
SQLQuery8.sql - DE...TASYS-SERVER (54))*
);
select * from students where roll_no=1;
select * from students where middle_name='Ramesh';
insert into students(first_name,last_name,middle_name)
values('Lalit','Kolte','Gajendra');
117 %
Results
Messages
roll_no first_name middle_name last_name creation_time updation_time
1 1 Kartik Ramesh Pande 2021-04-09 21:29:57.490 NULL
2 2 Sachin Ramesh Rane 2021-04-09 21:30:54.623 NULL

2. ***Select from*** student ***where*** roll no=3;



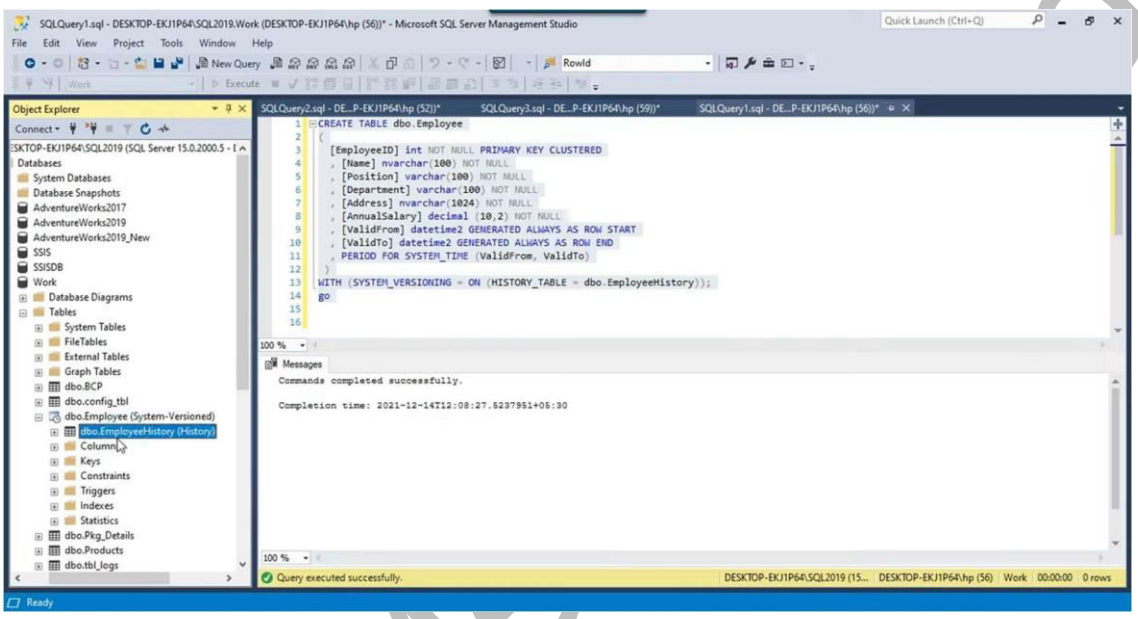
Practical No 5

Create a temporal database and issue queries on it.

Solution :

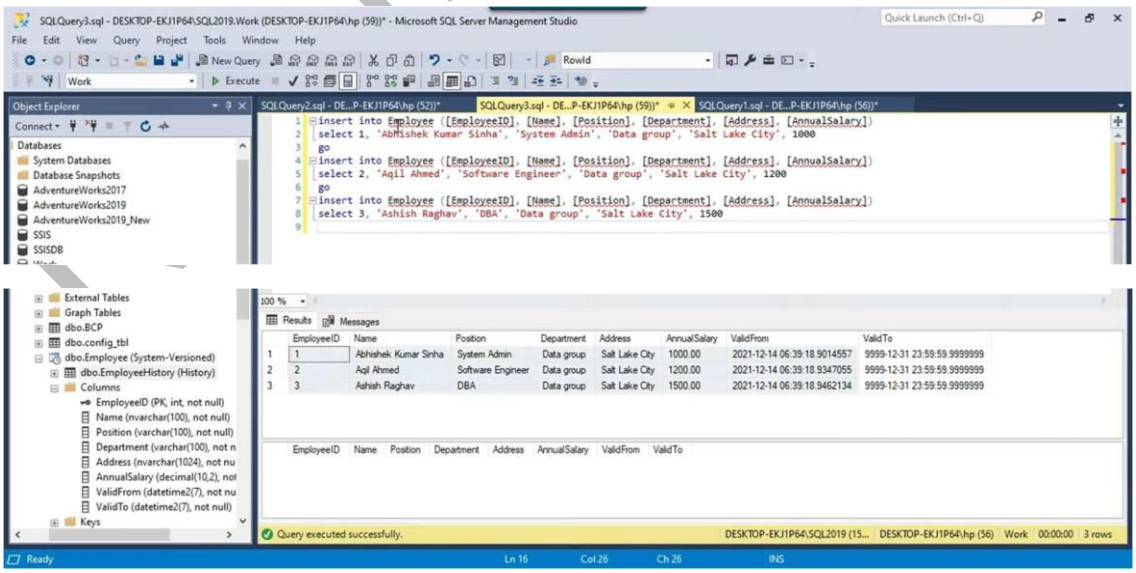
Step 1 : Start ⟶ Open Microsoft SQL Server Management Studio.

Step 2 : Create Temporal table.

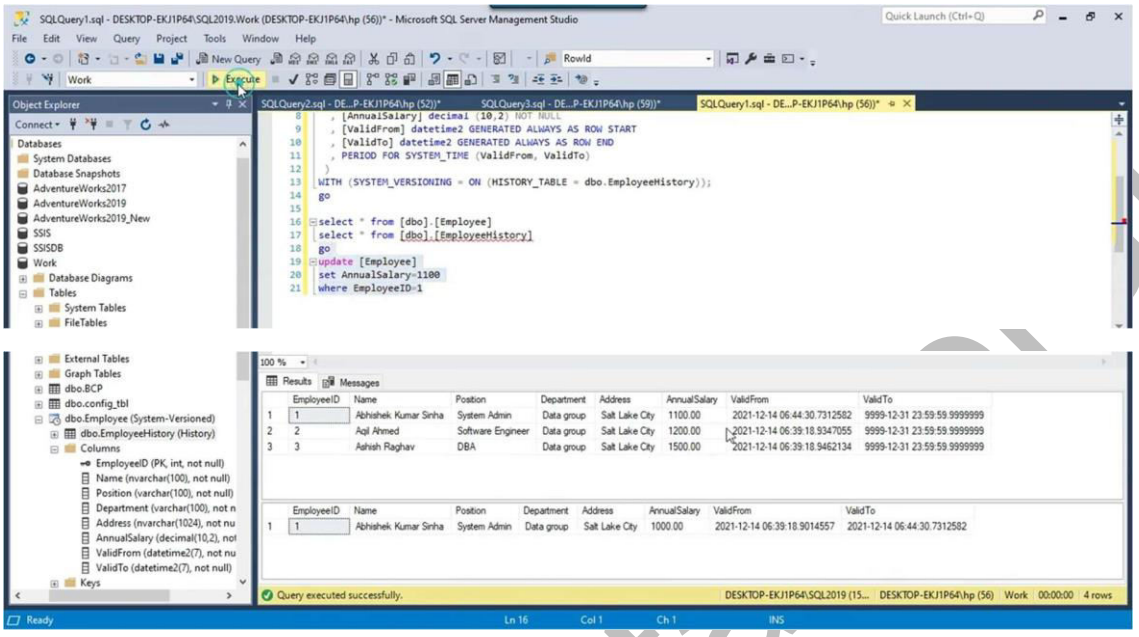


System versioned temporal table is created and Employee history table is created as well.

Step 3 : Using **insert** command , insert records in table.

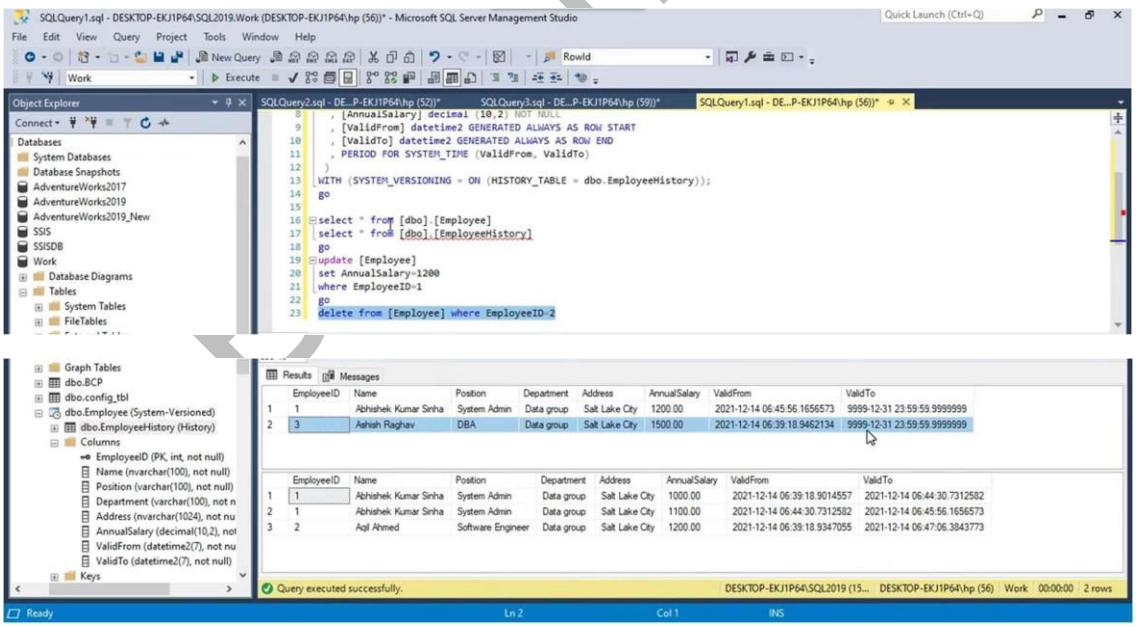


Step 4 : To Update temporal table.



Record is updated.

Step 5 : To delete record from temporal table.



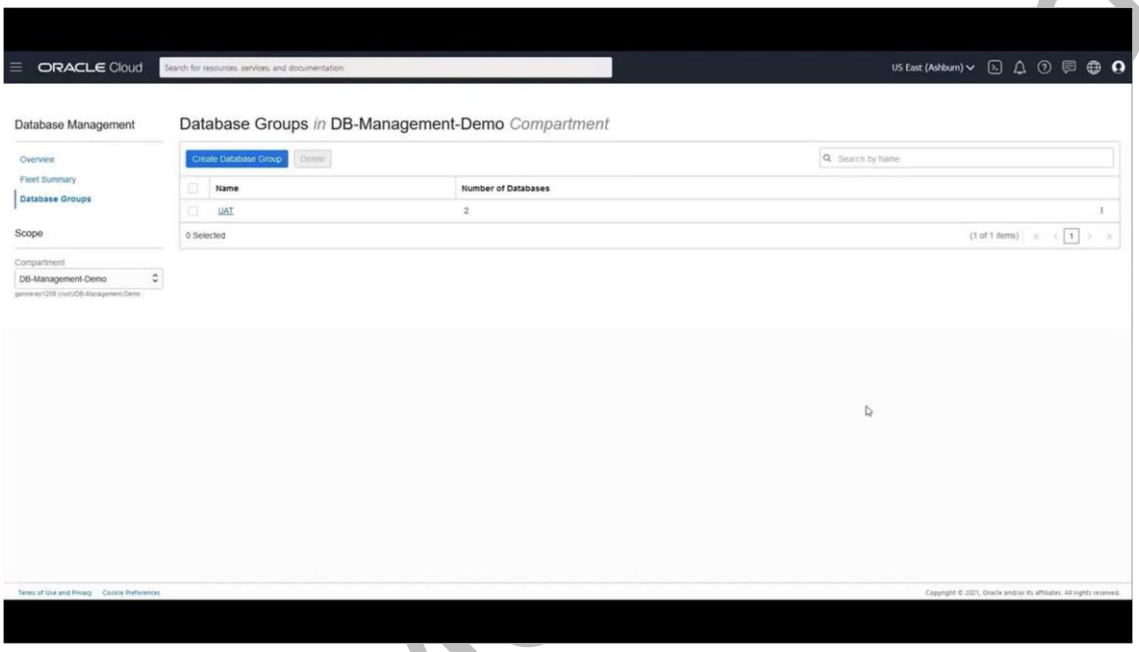
Practical No 10

Demonstrate the use of data management and operations using NoSQL in the Cloud.

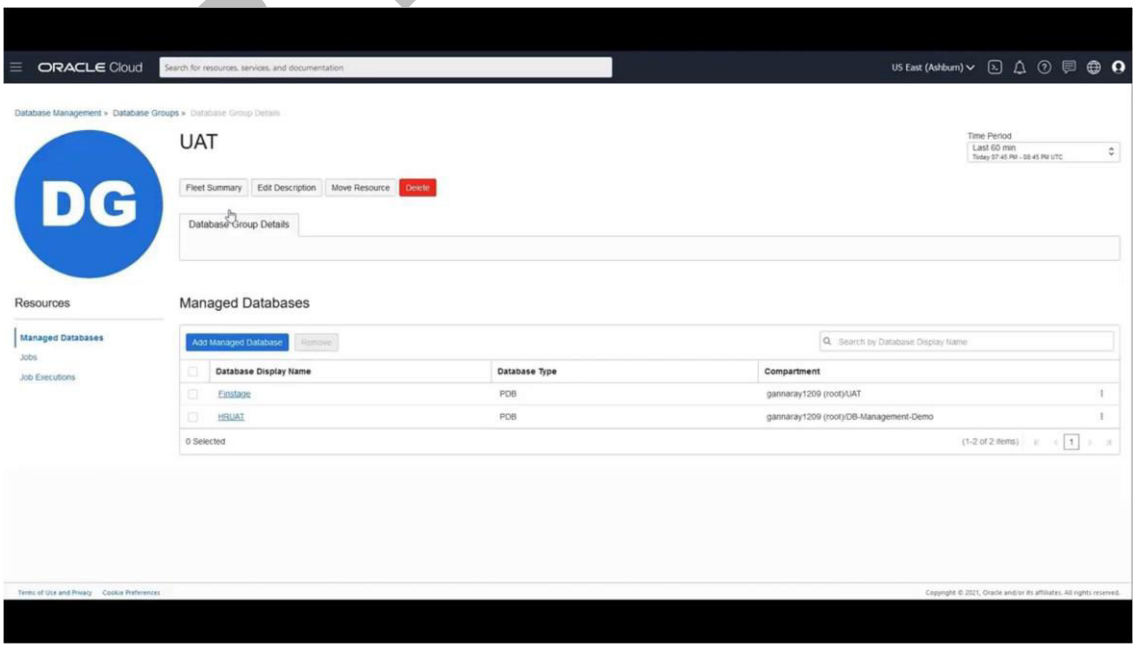
Solution :

Step 1 : : Start ⟶ www.oracle.com ⟶ Sign in 0R Sign up

Step 2 : Open database management console.

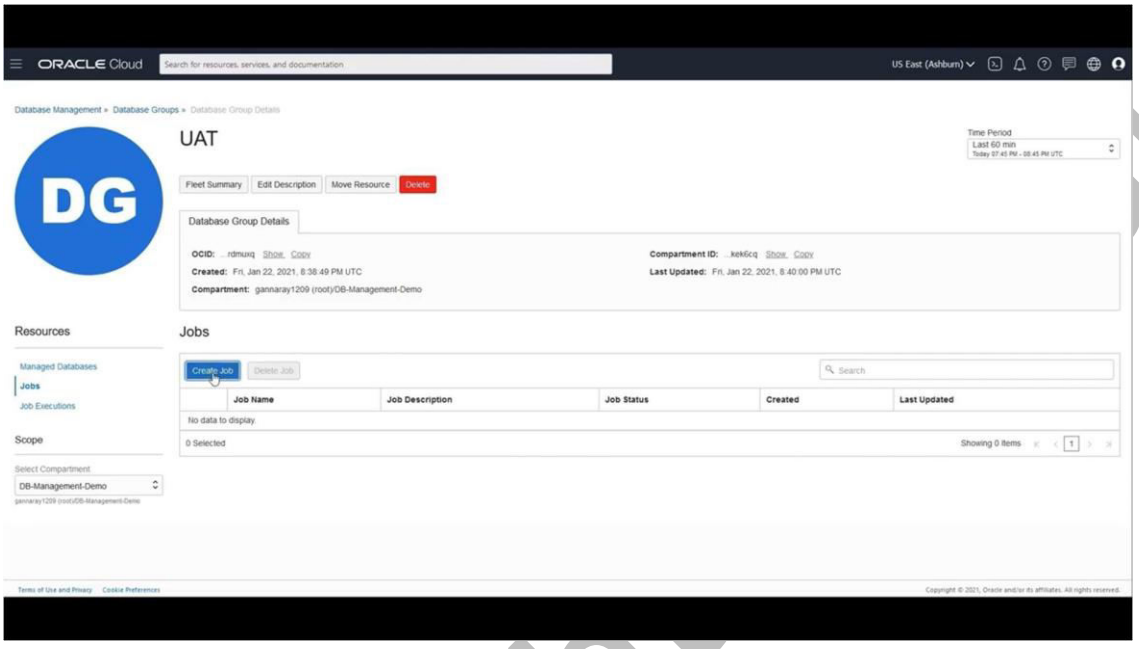


Step 3 : Click on UAT database Group.

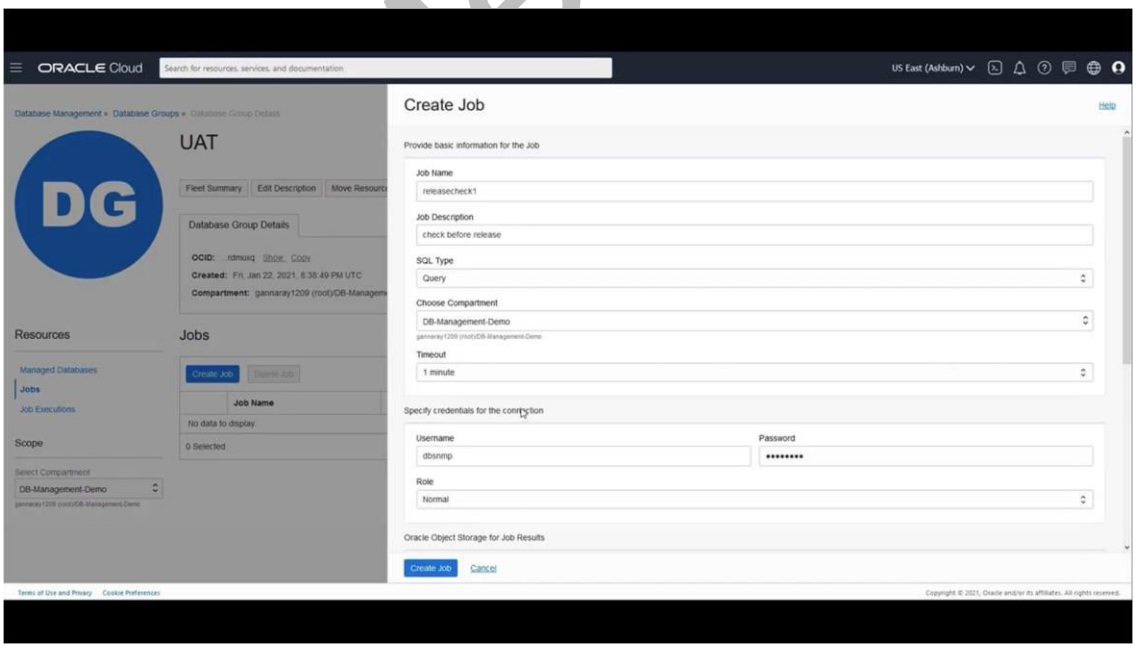


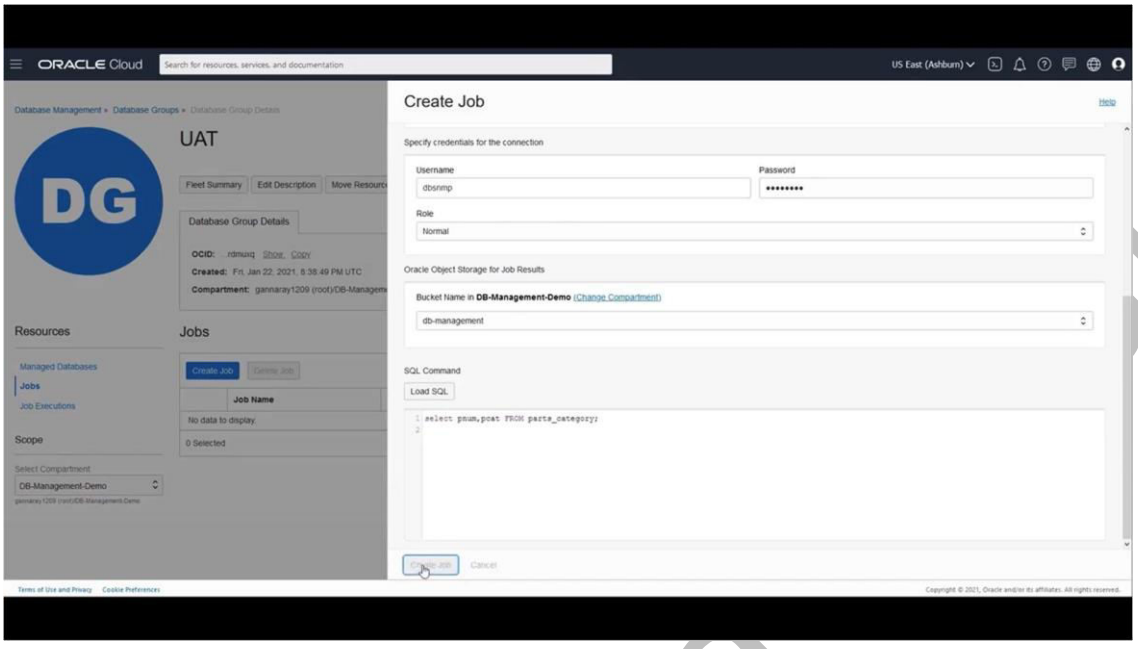
Step 4 : To create Job.

Click on create Job.

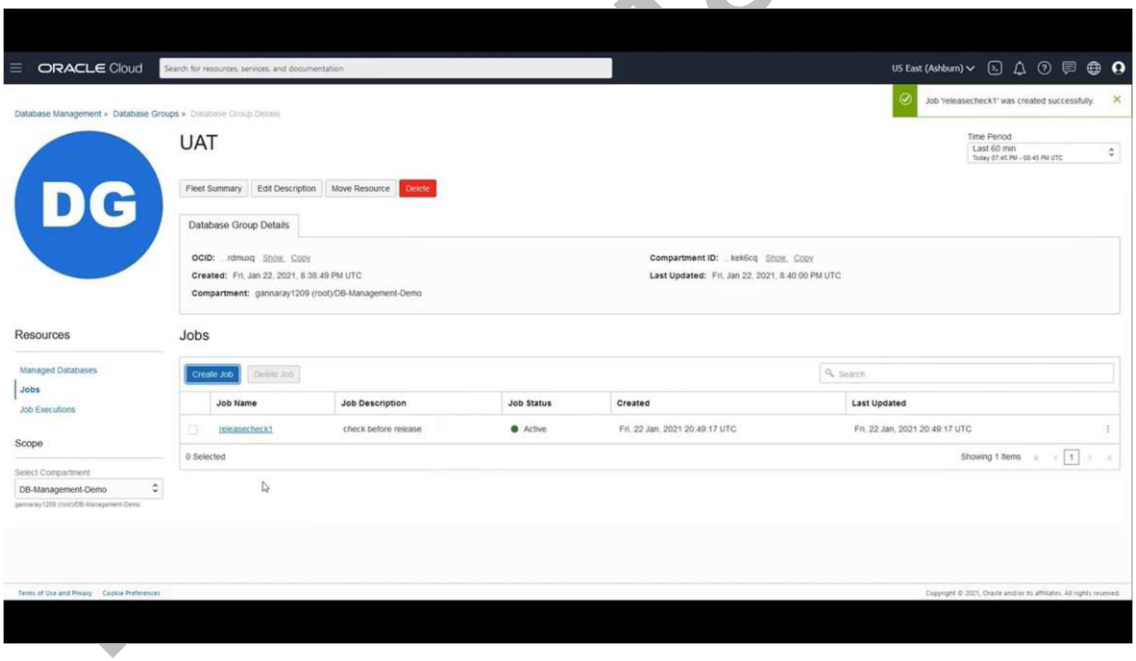


Step 5 : Fill the basic information in the box like Job name , description , SQL type etc.

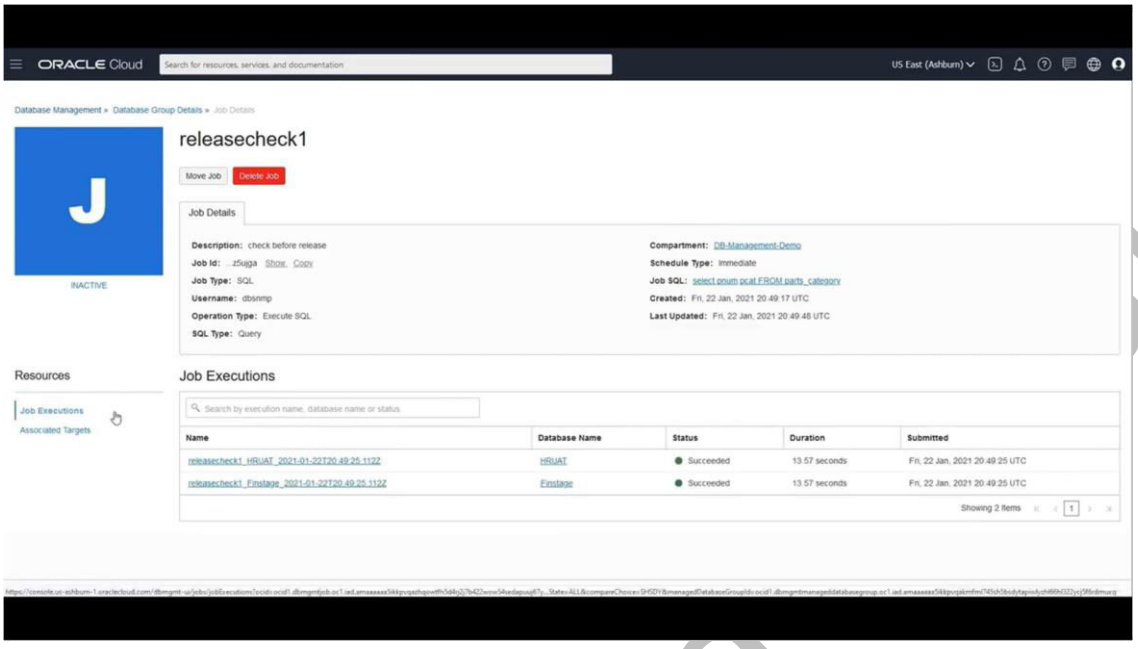




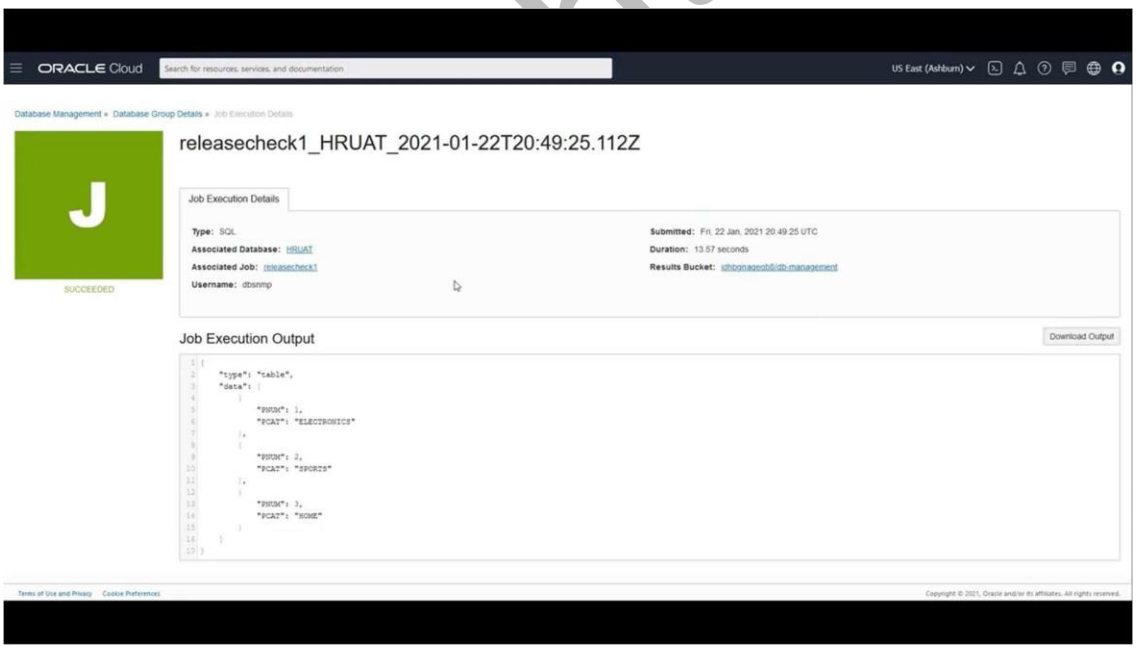
Job release check has created.



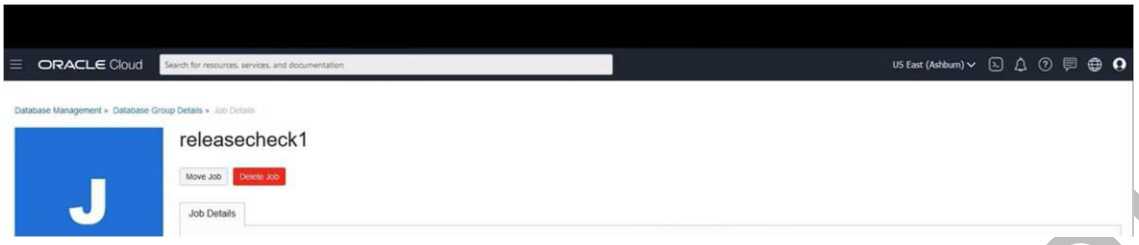
Step 6 : To check job execution , click on job name.



Step 7 : To check job execution output , click on one of the executions.



Step 8 : To delete Job , click on above option **Delete Job.**



Practical No 6

Demonstrate the Accessing and Storing and performing CRUD

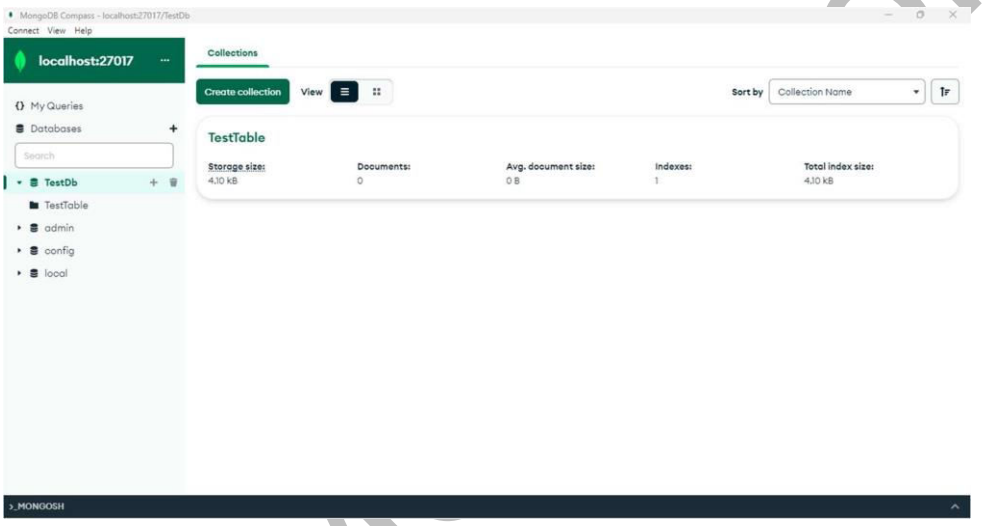
operations in

1. MongoDB

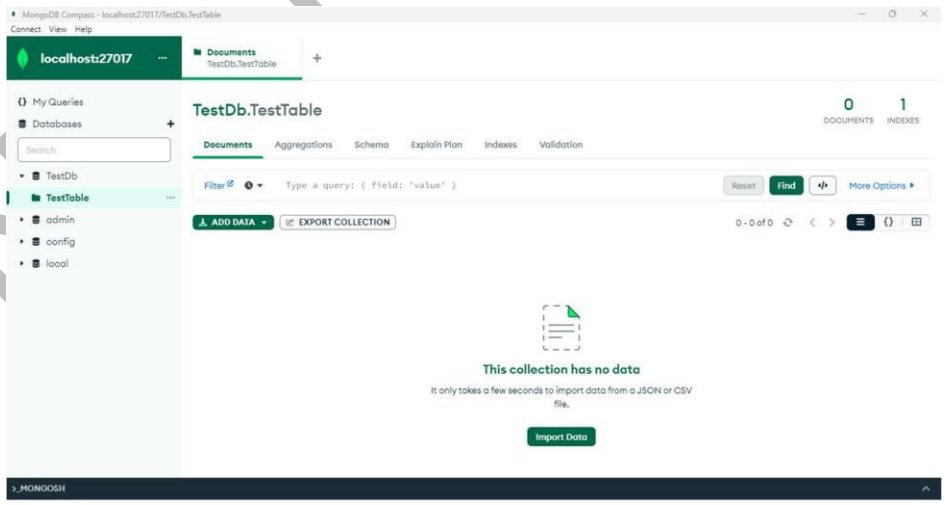
2. Redis

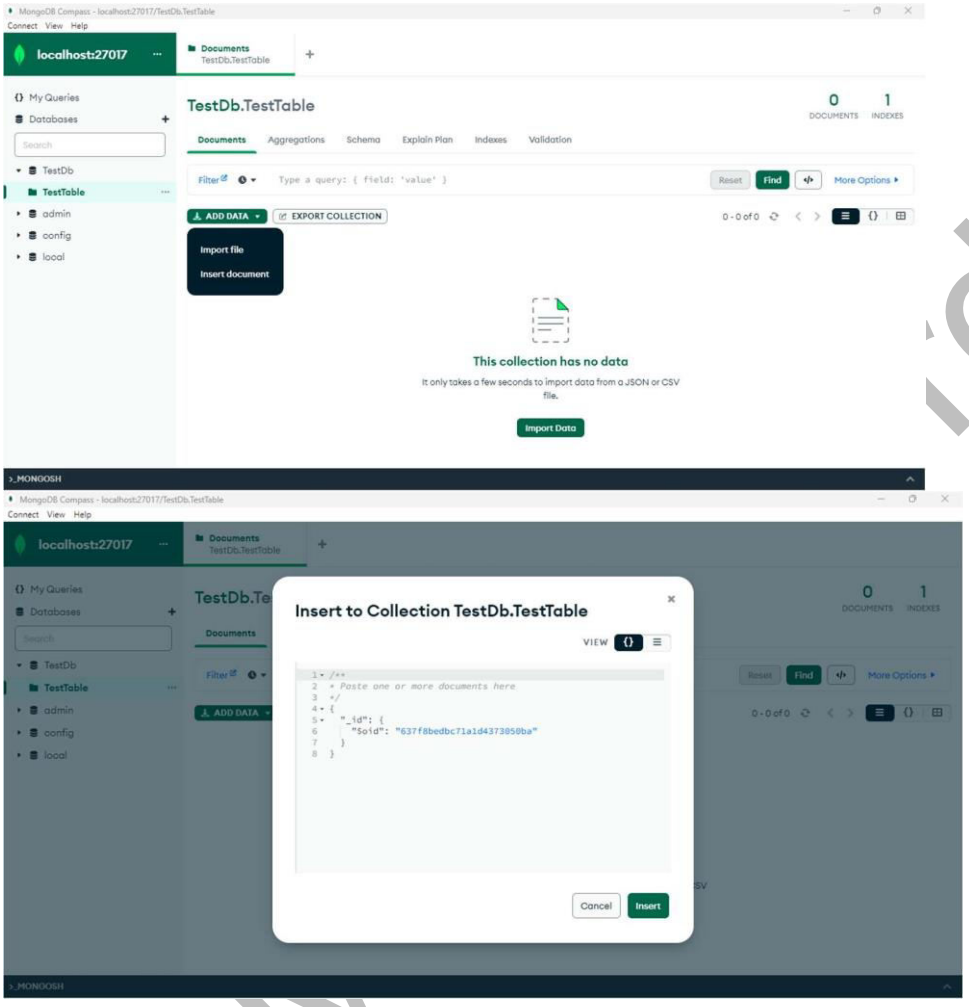
Solution :

Step 1 : Start ⟶ Open MongoDB.

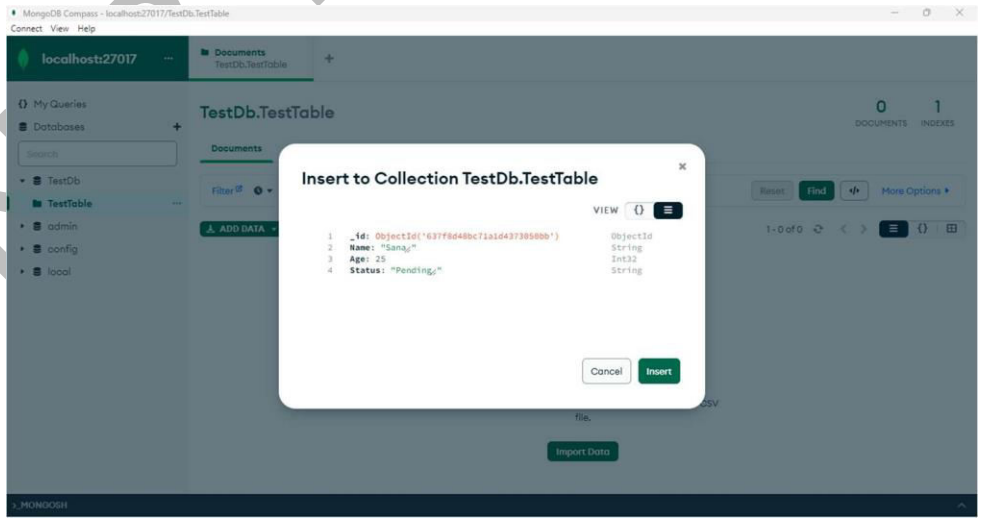


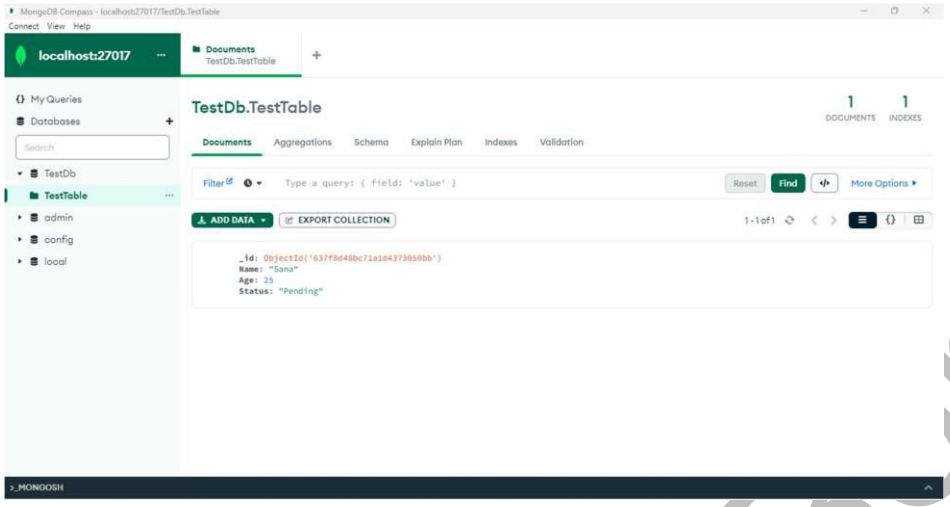
Step 2 : Select create database and then click on Add data and then choose Insert document.



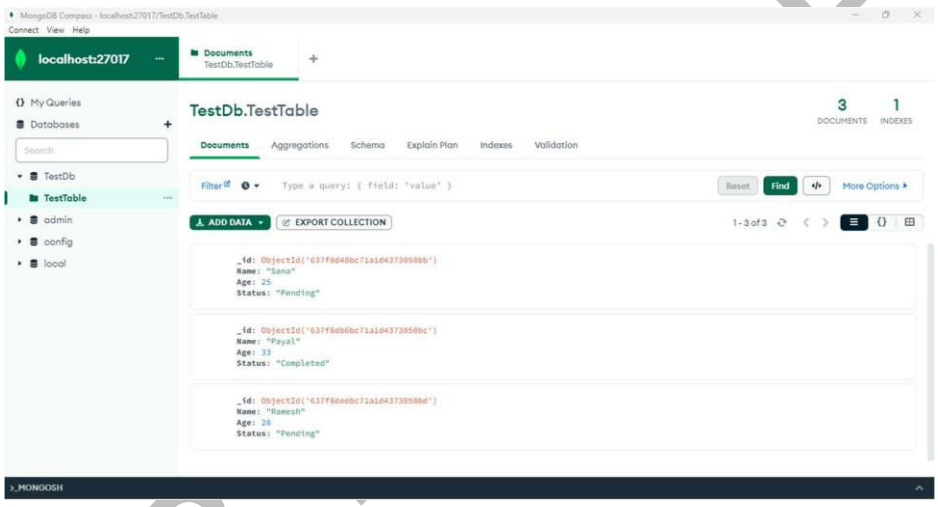


Insert data like name, age, status etc.

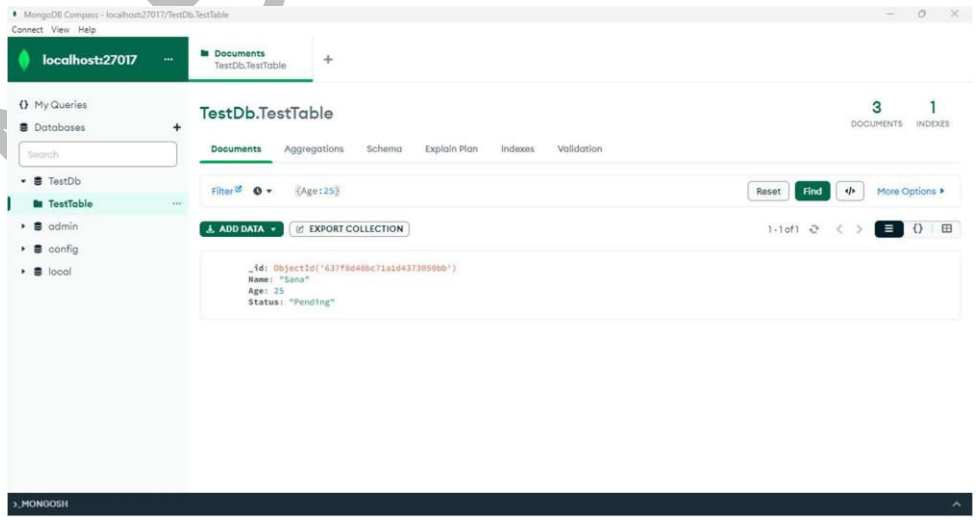




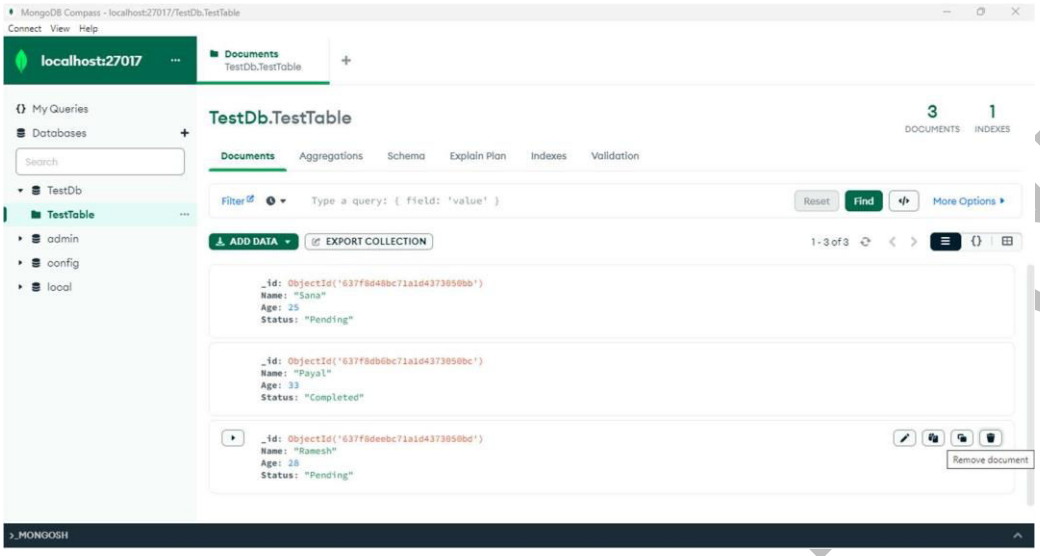
Step 3 : You can add new data and update it.



Step 4 : We can see access data by mentioning its values or names in Filter menu.



Step 5 : To delete data, click on remove document.



The updated database will look like :