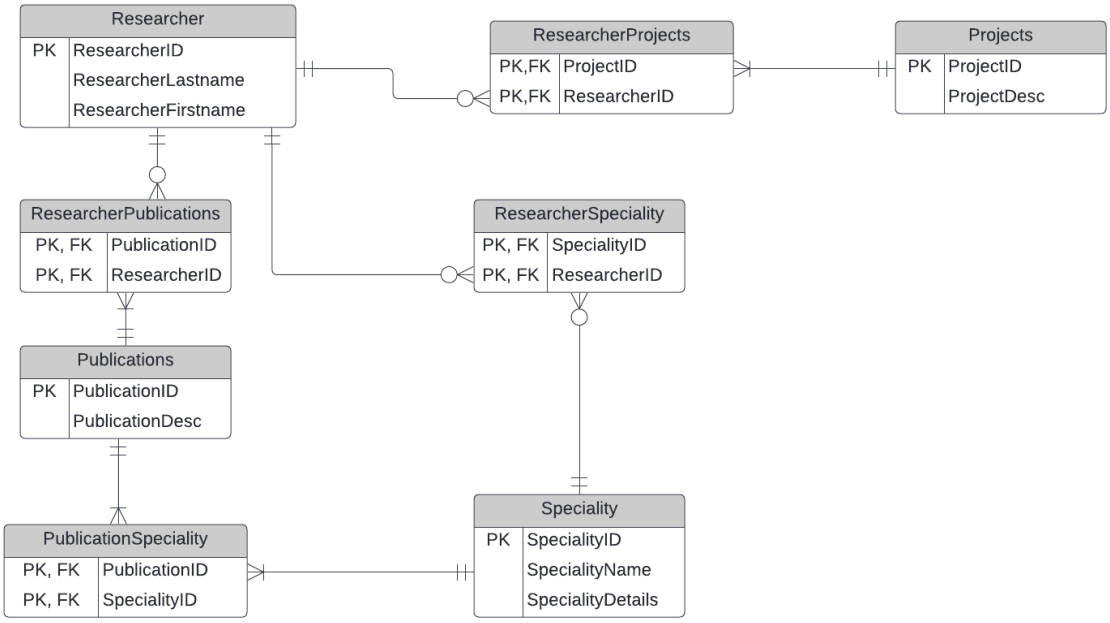
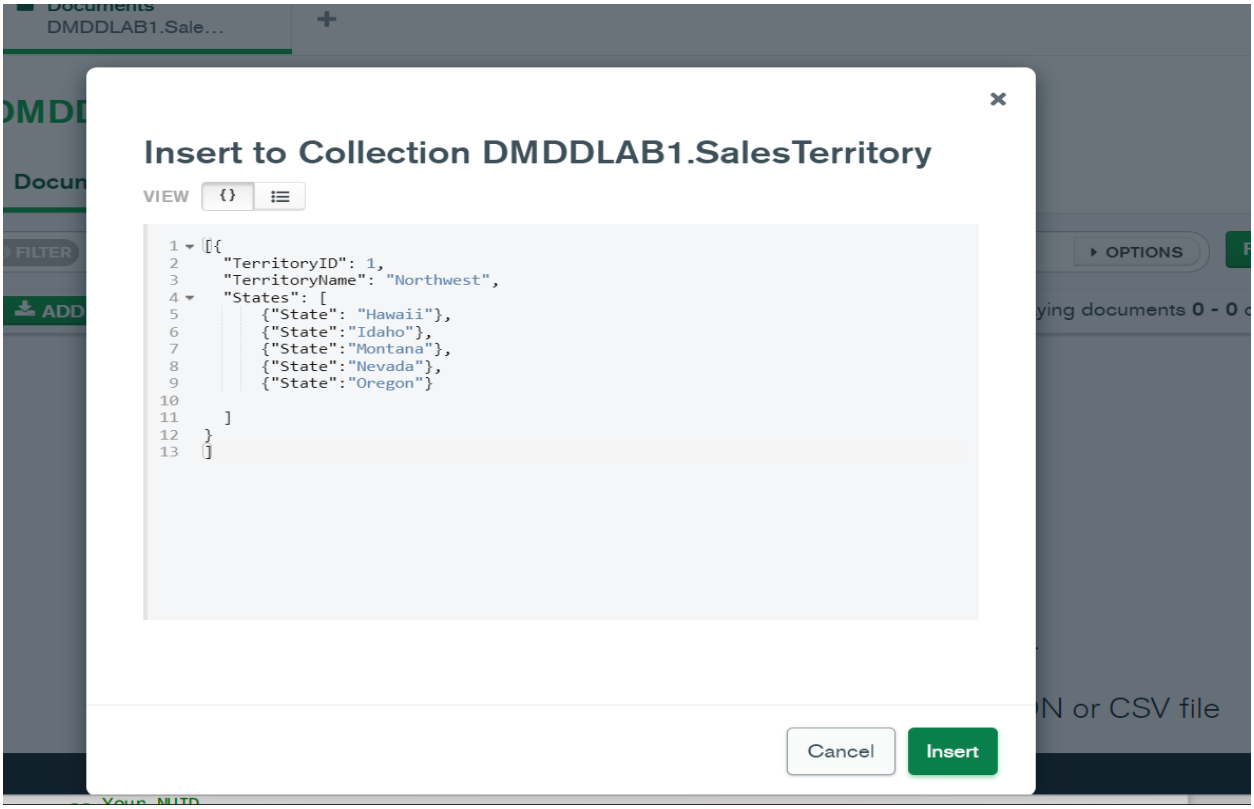
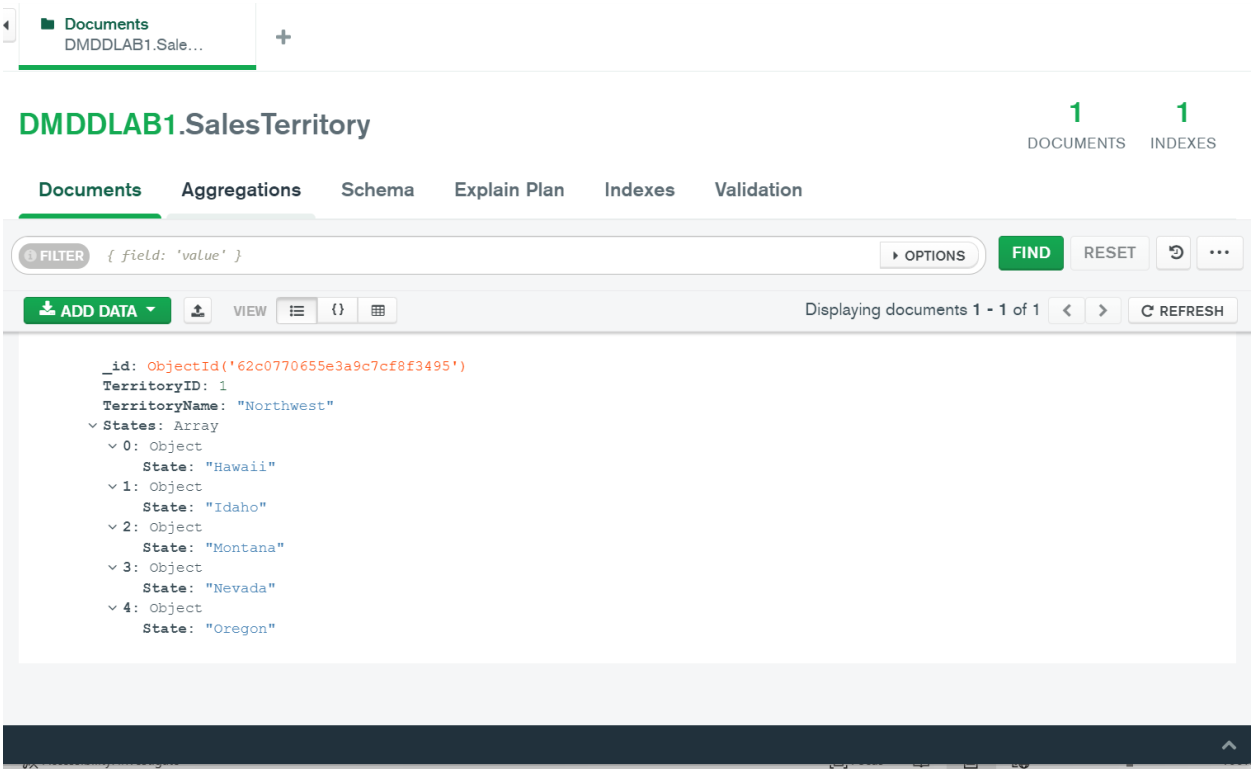
NUID - 001001740

--Question 1



--Question 2


DMDDLAB1.Sale...
Insert to Collection DMDDLAB1.SalesTerritory
VIEW
{}
[{
"TerritoryID": 1,
"TerritoryName": "Northwest",
"States": [
{"State": "Hawaii"},
{"State":"Idaho"},
{"State":"Montana"},
{"State":"Nevada"},
{"State":"Oregon"}
]
}
]
Cancel
Insert
OPTIONS
ADD
FILTER
N or CSV file


Documents
DMDDLAB1.Sale...
DMDDLAB1.SalesTerritory
1
DOCUMENTS
1
INDEXES
Documents
Aggregations
Schema
Explain Plan
Indexes
Validation
FILTER
{ field: 'value' }
OPTIONS
FIND
RESET
ADD DATA
VIEW
Displaying documents 1 - 1 of 1
REFRESH
_id: ObjectId('62c0770655e3a9c7cf8f3495')
TerritoryID: 1
TerritoryName: "Northwest"
States: Array
0: Object
State: "Hawaii"
1: Object
State: "Idaho"
2: Object
State: "Montana"
3: Object
State: "Nevada"
4: Object
State: "Oregon"

```
Use AdventureWorks2008R2;

-- Question 3

with SalesOrders AS(
select DISTINCT OH.SalesOrderID from sales.salesOrderHeader OH
INNER JOIN Sales.SalesOrderDetail OD
ON OH.SalesOrderID = OD.SalesOrderID
where MONTH(OrderDate) = 1 and DAY(orderDate) = 1
GROUP BY OH.SalesOrderID
HAVING COUNT(DISTINCT OD.ProductID) > 43)

SELECT SOH.TerritoryID, CAST(SUM(SOH.TotalDue) AS Integer) AS TotalSales
FROM Sales.SalesOrderHeader SOH
INNER JOIN SalesOrders SO
ON SOH.SalesOrderID = SO.SalesOrderID
GROUP BY SOH.TerritoryID
ORDER BY SOH.TerritoryID;




--Question 4

with cteHighestOrderQty AS(
SELECT CustomerID, OrderID FROM
(SELECT OH.CustomerID AS CustomerID, OH.SalesOrderID AS OrderID, SUM(OD.OrderQty) AS
OrderQty,
RANK() OVER(Partition BY OH.CustomerID ORDER BY SUM(OD.OrderQty) DESC) AS RnOrderQty
from Sales.SalesOrderHeader OH
INNER JOIN Sales.SalesOrderDetail OD
ON OH.SalesOrderID = OD.SalesOrderID
GROUP BY OH.CustomerID, OH.SalesOrderID) AS A
WHERE A.RnOrderQty = 1
),

cteMostPurchasedProduct AS(
SELECT CustomerID, ProductID FROM
(SELECT CustomerId, ProductID, TotalCount, RANK() OVER(Partition BY CustomerId ORDER BY
TotalCount DESC) AS rn FROM
(SELECT OH.CustomerID AS CustomerId, OD.ProductID AS ProductID, SUM(OrderQty) AS
TotalCount
from Sales.SalesOrderHeader OH
INNER JOIN Sales.SalesOrderDetail OD
ON OH.SalesOrderID = OD.SalesOrderID
GROUP BY OH.CustomerID, OD.ProductID) AS M) N
WHERE N.rn = 1
),

cteTotalPurchase AS(
SELECT OH.CustomerID AS CustomerId, CAST(SUM(TotalDue) AS Integer) AS TotalPurchase
FROM Sales.SalesOrderHeader OH
GROUP BY OH.CustomerID
HAVING SUM(TotalDue) > 950000
)
```

```
SELECT P.CustomerID, Q.ProductID AS MostPurchasedProduct, P.OrderID AS
OrderIdWithHighestOrderQty, TotalPurchase
FROM cteHighestOrderQty P
INNER JOIN cteMostPurchasedProduct Q
ON P.CustomerID = Q.CustomerID
INNER JOIN cteTotalPurchase R
ON P.CustomerID = R.CustomerId
ORDER BY P.CustomerID;
```