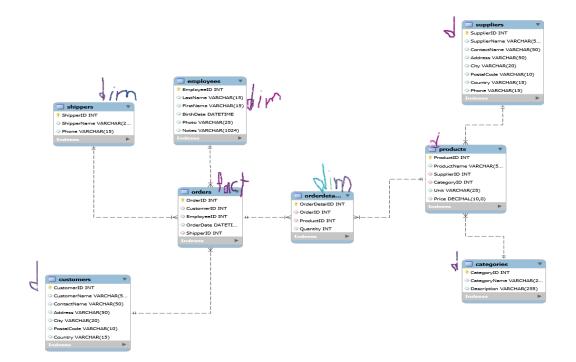
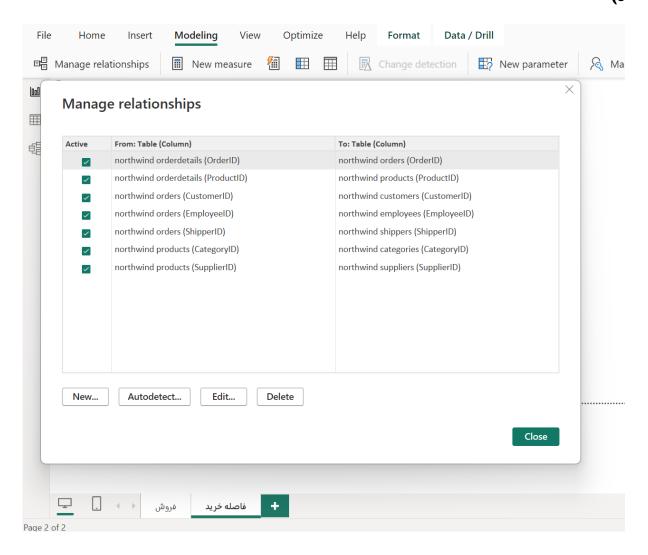
بخش اول)واقعیت ها و ابعاد!

1) فكت: orders مابقى دايمنشن

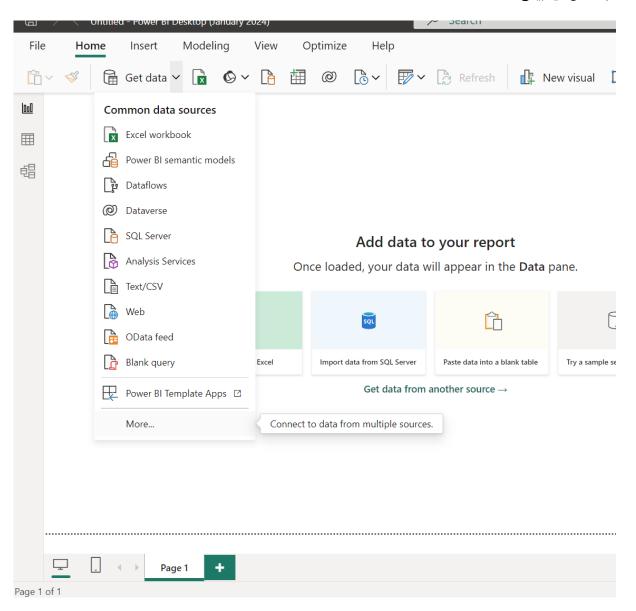


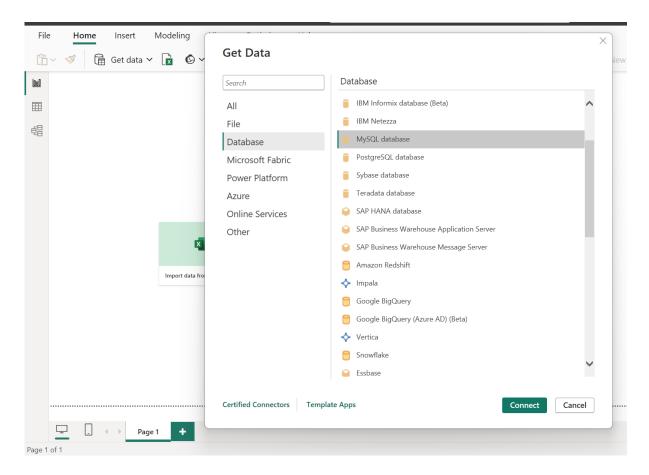
Snowflake (2



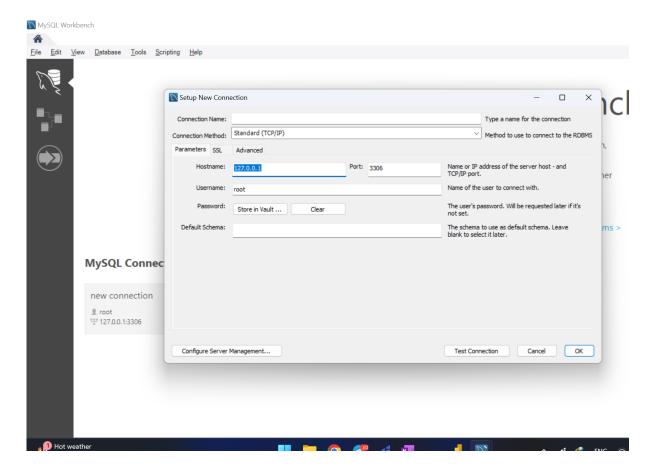
بخش دوم)ساخت داشبورد:

1**)اتصال دیتابیس:**

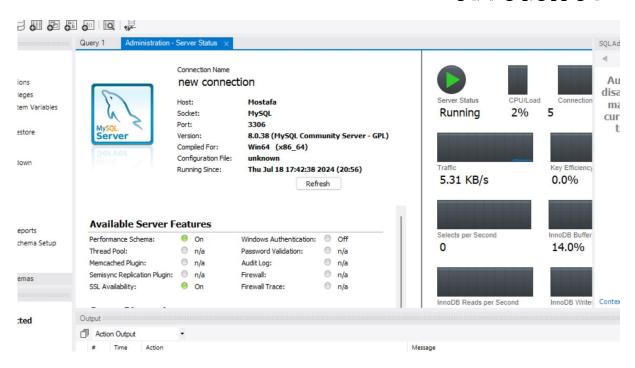




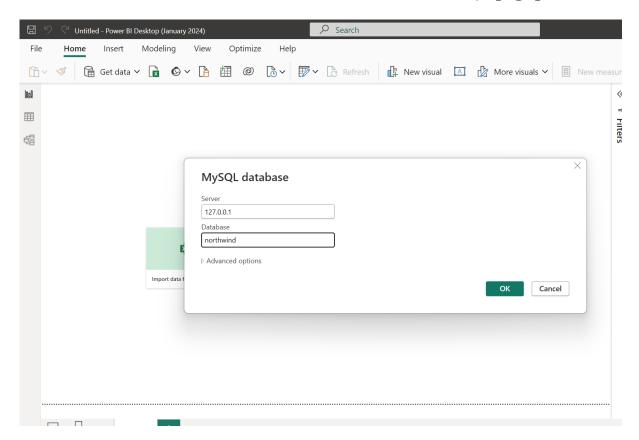
برای پیداکردن نام سرور و دیتابیس به MySQL Workbench می ریم:

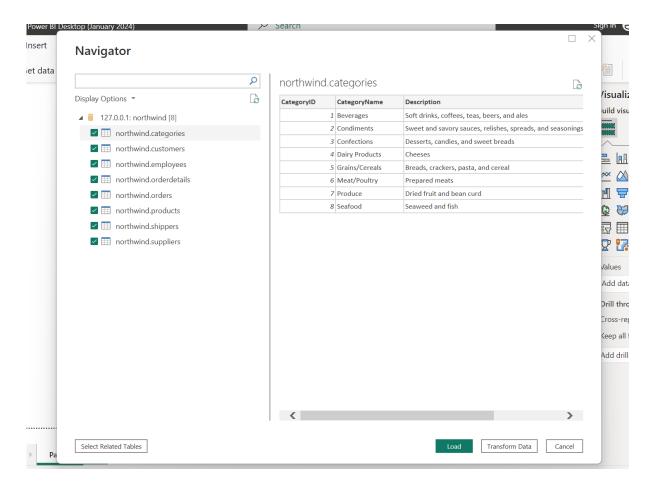


اطمینان از ران بودن دیتابیس:

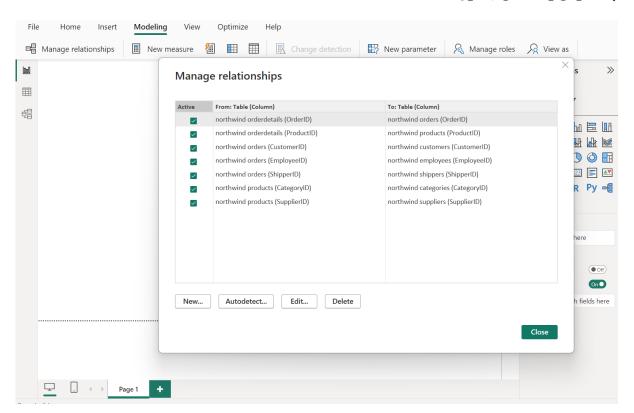


به powerbi بر می گردیم:





چک کردن رابطه بین جداول:



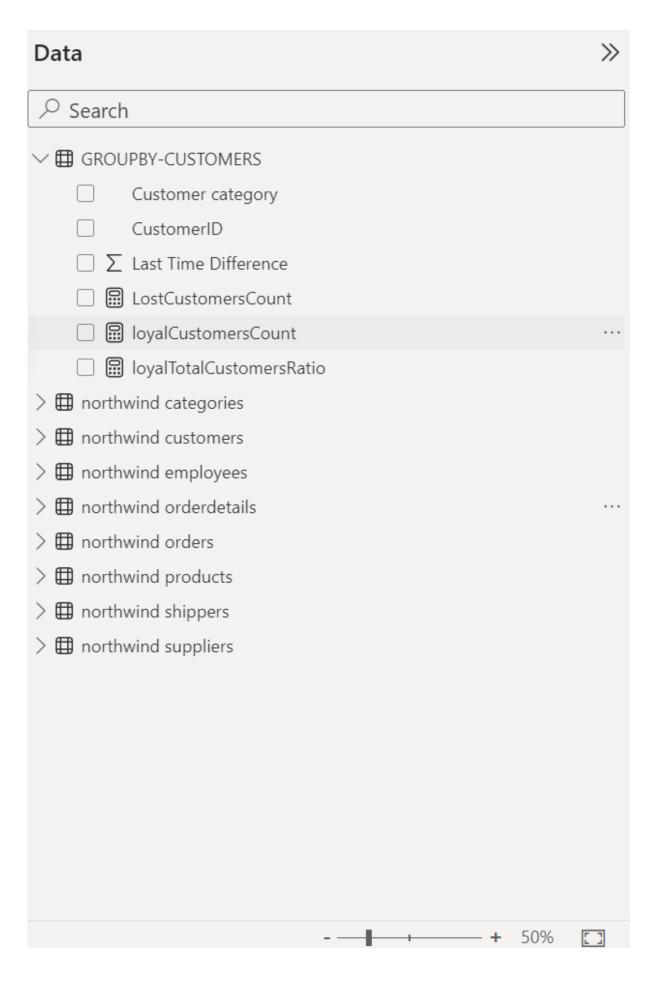
Data	>>		
∠ Search			
> ■ GROUPBY-CUSTOMERS			
> III northwind categories			
> III northwind customers			
> 🖽 northwind employees			
✓ mathematical northwind orderdetails			
avg sale			
☐ ☐ Last Time Difference			
☐ ☐ Last Time Difference Group			
□ ∑ OrderDetailID			
OrderID			
☐ 🛱 product_unit_price			
ProductID			
□ ∑ Quantity			
☐ 🖺 r_customerId			
> □ 🏗 r_orderDate			
□ 🖫 sale_amount			
☐ ☐ total_sale_amount1			
> III northwind orders			
> III northwind products			
> 🖽 northwind shippers			
> III northwind suppliers			

avg sale = AVERAGE('northwind orderdetails'[sale_amount])

```
Last Time Difference =
MAXX(
 VALUES('northwind orderdetails'[r_customerId]),
 VAR CurrentCustomer = 'northwind orderdetails'[r_customerId]
 VAR TimeDifferences =
   ADDCOLUMNS(
     FILTER(
       'northwind orderdetails',
       'northwind orderdetails'[r_customerId] = CurrentCustomer
     ),
     "TimeDifference",
     DATEDIFF(
       CALCULATE(
         MAX('northwind orderdetails'[r_orderDate]),
         FILTER(
           'northwind orderdetails',
           'northwind orderdetails'[r_customerId] = CurrentCustomer &&
           'northwind orderdetails'[r_orderDate] < EARLIER('northwind
orderdetails'[r_orderDate])
         )
       ),
       MAX('northwind orderdetails'[r_orderDate]),
       DAY
     )
   )
 RETURN
   MAXX(TimeDifferences, [TimeDifference])
)
```

•••••

```
Last Time Difference Group =
SWITCH(
 TRUE(),
  [Last Time Difference] <= 0, "New_customer",
  [Last Time Difference] <= 30, "Loyal_customer",
  [Last Time Difference] <= 90, "Potential_customer",
  "Lost_customer"
)
product_unit_price = RELATED('northwind products'[Price])
r_customerId = RELATED(('northwind customers'[CustomerID]))
r_orderDate = RELATED(('northwind orders'[OrderDate]))
.....
sale_amount = 'northwind orderdetails'[Quantity] * 'northwind
orderdetails'[product_unit_price]
total_sale_amount1 = sum('northwind orderdetails'[sale_amount])
  در ادامه دکس ای که برای کتگوری کردن مشتری ها استفاده کرده بودم رو به یک تیبل تبدیل اش کردم ولی چون بعد از
  تلاش های فراوان موفق نشد تیبل measure بسازم این تیبل رو به محیط visual ساختم و اکسپورت گرفتم و اینپورت
                                                                       کردم و ازش استفاده کردم
                                                             همچنین ریلیشن اش رو هم ایجاد کردم.
```



~	GROUPBY-CUSTOMERS (CustomerID)	northwind customers (CustomerID)
~	northwind orderdetails (OrderID)	northwind orders (OrderID)
~	northwind orderdetails (ProductID)	northwind products (ProductID)
	northwind orderdetails (r_customerId)	northwind customers (CustomerID)
~	northwind orders (CustomerID)	northwind customers (CustomerID)
~	northwind orders (EmployeeID)	northwind employees (EmployeeID)
~	northwind orders (ShipperID)	northwind shippers (ShipperID)
~	northwind products (CategoryID)	northwind categories (CategoryID)
~	northwind products (SupplierID)	northwind suppliers (SupplierID)
New	Autodetect Edit Delete	

To: Table (Column)

Active

From: Table (Column)

Class

```
LostCustomersCount =
CALCULATE(
 COUNTROWS('GROUPBY-CUSTOMERS'),
 'GROUPBY-CUSTOMERS'[Customer category] = "Lost_customer"
)
loyalCustomersCount =
CALCULATE(
 COUNTROWS('GROUPBY-CUSTOMERS'),
 'GROUPBY-CUSTOMERS'[Customer category] = "Loyal_customer"
loyalTotalCustomersRatio =
DIVIDE(
 [loyalCustomersCount],
 COUNTROWS('GROUPBY-CUSTOMERS')
)*100
```

به بعد) نمودار ها و...:

