

# Hurtownie danych Laboratorium Czw 11:15

## Lista 2

Kajetan Pynka 254495

## Zad 1.1

```
SELECT SOH.SalesPersonID "pracID", SOD.ProductID "prodID", P.Name  
"Nazwa produktu", Year(SOH.OrderDate) "Rok",  
COUNT(SOD.OrderQty) "Liczba" FROM Sales.SalesOrderHeader SOH  
JOIN Sales.SalesOrderDetail SOD ON  
SOH.SalesOrderID=SOD.SalesOrderID  
JOIN Production.Product P ON P.ProductID=SOD.ProductID  
GROUP BY SOH.SalesPersonID, SOD.ProductID, P.Name,  
Year(SOH.OrderDate);
```

	pracID	prodID	Nazwa produktu	Rok	Liczba
1	274	782	Mountain-200 Black, 38	2012	3
2	278	783	Mountain-200 Black, 42	2013	9
3	289	844	Minipump	2013	14
4	290	880	Hydration Pack - 70 oz.	2014	8
5	289	761	Road-650 Red, 62	2013	11
6	282	748	HL Mountain Frame - Silver, 38	2014	6
7	277	860	Half-Finger Gloves, L	2014	7
8	284	991	Mountain-500 Black, 44	2013	2
9	286	915	ML Touring Seat/Saddle	2014	1
10	283	718	HL Road Frame - Red, 44	2013	1
11	277	723	LL Road Frame - Black, 60	2012	3
12	278	712	AWC Logo Cap	2013	31
13	275	889	HL Touring Frame - Yellow, 54	2013	5
14	284	956	Touring-1000 Yellow, 54	2014	3

## Zad 1.1a

```
SELECT * FROM (  
    SELECT SOH.SalesPersonID "pracID", SOD.ProductID "prodID", P.Name  
    "Nazwa produktu", Year(SOH.OrderDate) "Rok",  
    SOD.OrderQty "Liczba" FROM Sales.SalesOrderHeader SOH  
    JOIN Sales.SalesOrderDetail SOD ON  
    SOH.SalesOrderID=SOD.SalesOrderID  
    JOIN Production.Product P ON P.ProductID=SOD.ProductID) S  
    PIVOT(COUNT(Liczba) FOR S.Rok IN ([2011], [2012], [2013], [2014]))  
AS X;
```

	pracID	prodID	Nazwa produktu	2011	2012	2013	2014
1	279	723	LL Road Frame - Black, 60	1	2	2	0
2	280	787	Mountain-300 Black, 44	0	5	2	0
3	275	870	Water Bottle - 30 oz.	0	0	23	7
4	NULL	957	Touring-1000 Yellow, 60	0	0	67	73
5	285	965	Touring-3000 Yellow, 62	0	0	4	1
6	289	841	Men's Sports Shorts, S	0	17	8	0
7	276	957	Touring-1000 Yellow, 60	0	0	15	9
8	NULL	934	Touring Tire	0	0	442	493
9	290	905	ML Mountain Frame-W - Silver, 42	0	0	13	6
10	274	760	Road-650 Red, 60	1	4	2	0
11	275	824	ML Mountain Rear Wheel	0	20	10	0
12	284	855	Men's Bib-Shorts, S	0	4	4	0
13	288	708	Sport-100 Helmet, Black	0	0	23	9
14	283	768	Road-650 Black, 44	2	7	2	0
15	NULL	765	Road-650 Black, 58	11	39	26	0
16	289	795	Road-250 Black, 52	0	19	26	8

### Zad 1.1b

```

SELECT * FROM (
SELECT SOH.SalesPersonID "pracID", Year(SOH.OrderDate) "Rok",
P.ProductID "NrProd",
    SOD.OrderQty FROM Sales.SalesOrderHeader SOH
    JOIN Sales.SalesOrderDetail SOD ON
SOH.SalesOrderID=SOD.SalesOrderID
    JOIN Production.Product P ON P.ProductID=SOD.ProductID
    WHERE P.ProductID IN (SELECT ProductID FROM (SELECT DISTINCT TOP 5
SOD.ProductID, MAX(SOD.OrderQty) "Liczba"
    FROM Sales.SalesOrderDetail SOD
    GROUP BY SOD.ProductID
    ORDER BY 2 DESC) AS Subquery)) S
    PIVOT(COUNT(OrderQty) FOR S.NrProd IN ([863], [869], [867], [864],
[709])) X
    ORDER BY 2;

```

	pracID	Rok	863	869	867	864	709
1	279	2011	0	0	0	0	18
2	281	2011	0	0	0	0	9
3	276	2011	0	0	0	0	13
4	278	2011	0	0	0	0	4
5	283	2011	0	0	0	0	13
6	275	2011	0	0	0	0	13
7	280	2011	0	0	0	0	10
8	282	2011	0	0	0	0	12
9	277	2011	0	0	0	0	9
10	280	2012	7	0	0	0	6
11	276	2012	33	0	0	0	16
12	290	2012	11	0	0	0	0
13	278	2012	6	0	0	0	4
14	284	2012	5	0	0	0	0
15	279	2012	29	0	0	0	16
16	281	2012	14	0	0	0	6

## Zad 1.2

```
SELECT YEAR(SOH.OrderDate) "Rok", MONTH(SOH.OrderDate) "Miesiac",
COUNT(DISTINCT SOH.CustomerID) "Rozni klienci"
FROM Sales.SalesOrderHeader SOH
GROUP BY YEAR(SOH.OrderDate), MONTH(SOH.OrderDate)
ORDER BY 1, 2;
```

	Rok	Miesiac	Rozni klienci
1	2011	5	43
2	2011	6	141
3	2011	7	231
4	2011	8	250
5	2011	9	157
6	2011	10	327
7	2011	11	230
8	2011	12	228
9	2012	1	336
10	2012	2	219
11	2012	3	304
12	2012	4	269
13	2012	5	293
14	2012	6	390
15	2012	7	385
16	2012	8	285
17	2012	9	352
18	2012	10	321
19	2012	11	383
20	2012	12	378
21	2013	1	400
22	2013	2	325
23	2013	3	441
24	2013	4	428
25	2013	5	426
26	2013	6	713
27	2013	7	1675
28	2013	8	1727
29	2013	9	1741
30	2013	10	1893
31	2013	11	2041
32	2013	12	1970
33	2014	1	2073
34	2014	2	1713
35	2014	3	2342

## Zad 1.2b

```

SELECT * FROM (
    SELECT DISTINCT YEAR(OrderDate) "Rok", MONTH(OrderDate) "Miesiac",
CustomerID "Rozni klienci"
    FROM Sales.SalesOrderHeader
) S PIVOT(COUNT([Rozni klienci])
FOR S.[Miesiac] IN ([1], [2], [3], [4], [5], [6], [7], [8], [9],
[10], [11], [12])) X
ORDER BY 1;

```

	Rok	1	2	3	4	5	6	7	8	9	10	11	12
1	2011	0	0	0	0	43	141	231	250	157	327	230	228
2	2012	336	219	304	269	293	390	385	285	352	321	383	378
3	2013	400	325	441	428	426	713	1675	1727	1741	1893	2041	1970
4	2014	2073	1713	2342	2058	2350	898	0	0	0	0	0	0

### Zad 1.3

```
SELECT * FROM (
    SELECT Per.FirstName + ' ' + Per.LastName "Imie i nazwisko",
    YEAR(SOH.OrderDate) "Rok", SOH.SalesOrderID
    FROM Sales.SalesOrderHeader SOH
    JOIN Sales.SalesPerson SP ON
    SOH.SalesPersonID=SP.BusinessEntityID
    JOIN Person.Person Per ON
    Per.BusinessEntityID=SP.BusinessEntityID
    ) S PIVOT(COUNT(SalesOrderID) FOR S.Rok IN ([2011], [2012], [2013],
[2014])) X;
```

	Imie i nazwisko	2011	2012	2013	2014
1	Amy Alberts	0	7	29	3
2	David Campbell	28	63	72	26
3	Garrett Vargas	30	80	89	35
4	Jae Pak	0	111	170	67
5	Jillian Carson	59	166	185	63
6	José Saraiva	56	86	86	43
7	Linda Mitchell	46	151	162	59
8	Lynn Tsoflias	0	0	66	43
9	Michael Blythe	65	148	175	62
10	Pamela Ansman-Wolfe	22	45	19	9
11	Rachel Valdez	0	0	86	44
12	Ranjit Varkey Chudukatil	0	42	94	39
13	Shu Ito	33	74	98	37
14	Stephen Jiang	4	22	14	8
15	Syed Abbas	0	0	12	4
16	Tete Mensa-Annan	0	24	82	34
17	Tsvi Reiter	63	153	159	54

### Zad 1.4

```
SELECT YEAR(SOH.OrderDate) "Rok", MONTH(SOH.OrderDate) "Miesiąc",
DAY(SOH.OrderDate) "Dzień",
    SUM(SOH.TotalDue) "Suma", COUNT(DISTINCT SOD.ProductID) "Liczba
różnych produktów"
    FROM Sales.SalesOrderHeader SOH
    JOIN Sales.SalesOrderDetail SOD ON
    SOH.SalesOrderID=SOD.SalesOrderID
```

```
GROUP BY YEAR(SOH.OrderDate), MONTH(SOH.OrderDate),
DAY(SOH.OrderDate)
ORDER BY 1, 2, 3;
```

	Rok	Miesiąc	Dzień	Suma	Liczba różnych produktów
1	2011	5	31	8094970,2066	47
2	2011	6	1	15394,3298	4
3	2011	6	2	16588,4572	4
4	2011	6	3	7907,9768	2
5	2011	6	4	16588,4572	4
6	2011	6	5	15815,9536	3
7	2011	6	6	8680,4804	3
8	2011	6	7	8680,4804	2
9	2011	6	8	23105,3072	5
10	2011	6	9	11664,9658	3
11	2011	6	10	15815,9536	3
12	2011	6	11	15618,9542	4
13	2011	6	12	7907,9768	2
14	2011	6	13	27677,9188	4
15	2011	6	14	12409,8444	4
16	2011	6	15	15815,9536	2

## Zad 1.5

```
SELECT CASE
    WHEN MONTH(SOH.OrderDate)=1 THEN 'Styczeń'
    WHEN MONTH(SOH.OrderDate)=2 THEN 'Luty'
    WHEN MONTH(SOH.OrderDate)=3 THEN 'Marzec'
    WHEN MONTH(SOH.OrderDate)=4 THEN 'Kwiecień'
    WHEN MONTH(SOH.OrderDate)=5 THEN 'Maj'
    WHEN MONTH(SOH.OrderDate)=6 THEN 'Czerwiec'
    WHEN MONTH(SOH.OrderDate)=7 THEN 'Lipiec'
    WHEN MONTH(SOH.OrderDate)=8 THEN 'Sierpień'
    WHEN MONTH(SOH.OrderDate)=9 THEN 'Wrzesień'
    WHEN MONTH(SOH.OrderDate)=10 THEN 'Październik'
    WHEN MONTH(SOH.OrderDate)=11 THEN 'Listopad'
    WHEN MONTH(SOH.OrderDate)=12 THEN 'Grudzień'
END "Miesiąc", SUM(SOH.SubTotal) "Suma",
COUNT(DISTINCT SOD.ProductID) "Liczba różnych produktów"
FROM Sales.SalesOrderHeader SOH
JOIN Sales.SalesOrderDetail SOD ON
SOH.SalesOrderID=SOD.SalesOrderID
GROUP BY MONTH(SOH.OrderDate) ORDER BY MONTH(SOH.OrderDate);
```

	Miesiąc	Suma	Liczba różnych produktów
1	Styczen	162948889,3944	211
2	Luty	91887841,9651	200
3	Marzec	339699263,2856	246
4	Kwiecien	100265759,5521	200
5	Maj	346435416,8907	263
6	Czerwiec	323879162,85	253
7	Lipiec	318807487,1861	260
8	Sierpień	183995405,5416	245
9	Wrzesień	228138296,6322	234
10	Pazdziernik	276923981,722	247
11	Listopad	84420434,5777	201
12	Grudzień	139068517,0799	211

## Zad 1.5b

```

SELECT CASE
    WHEN DATEPART(WEEKDAY, SOH.OrderDate)=1 THEN 'Niedziela'
    WHEN DATEPART(WEEKDAY, SOH.OrderDate)=2 THEN 'Poniedziałek'
    WHEN DATEPART(WEEKDAY, SOH.OrderDate)=3 THEN 'Wtorek'
    WHEN DATEPART(WEEKDAY, SOH.OrderDate)=4 THEN 'Środa'
    WHEN DATEPART(WEEKDAY, SOH.OrderDate)=5 THEN 'Czwartek'
    WHEN DATEPART(WEEKDAY, SOH.OrderDate)=6 THEN 'Piątek'
    WHEN DATEPART(WEEKDAY, SOH.OrderDate)=7 THEN 'Sobota'
END "Dzień tygodnia", SUM(SOH.SubTotal) "Suma",
COUNT(DISTINCT SOD.ProductID) "Liczba różnych produktów"
FROM Sales.SalesOrderHeader SOH
JOIN Sales.SalesOrderDetail SOD ON
SOH.SalesOrderID=SOD.SalesOrderID
GROUP BY DATEPART(WEEKDAY, SOH.OrderDate) ORDER BY CASE
    WHEN DATEPART(WEEKDAY, SOH.OrderDate)=1 THEN 7
    WHEN DATEPART(WEEKDAY, SOH.OrderDate)=2 THEN 1
    WHEN DATEPART(WEEKDAY, SOH.OrderDate)=3 THEN 2
    WHEN DATEPART(WEEKDAY, SOH.OrderDate)=4 THEN 3
    WHEN DATEPART(WEEKDAY, SOH.OrderDate)=5 THEN 4
    WHEN DATEPART(WEEKDAY, SOH.OrderDate)=6 THEN 5
    WHEN DATEPART(WEEKDAY, SOH.OrderDate)=7 THEN 6
END;

```

	Dzień tygodnia	Suma	Liczba różnych produktów
1	Poniedziałek	405243000,9979	241
2	Wtorek	358301922,2763	235
3	Sroda	496891402,8831	262
4	Czwartek	383509044,0962	260
5	Piatek	188847380,7946	238
6	Sobota	425217167,4498	251
7	Niedziela	338460538,1795	259

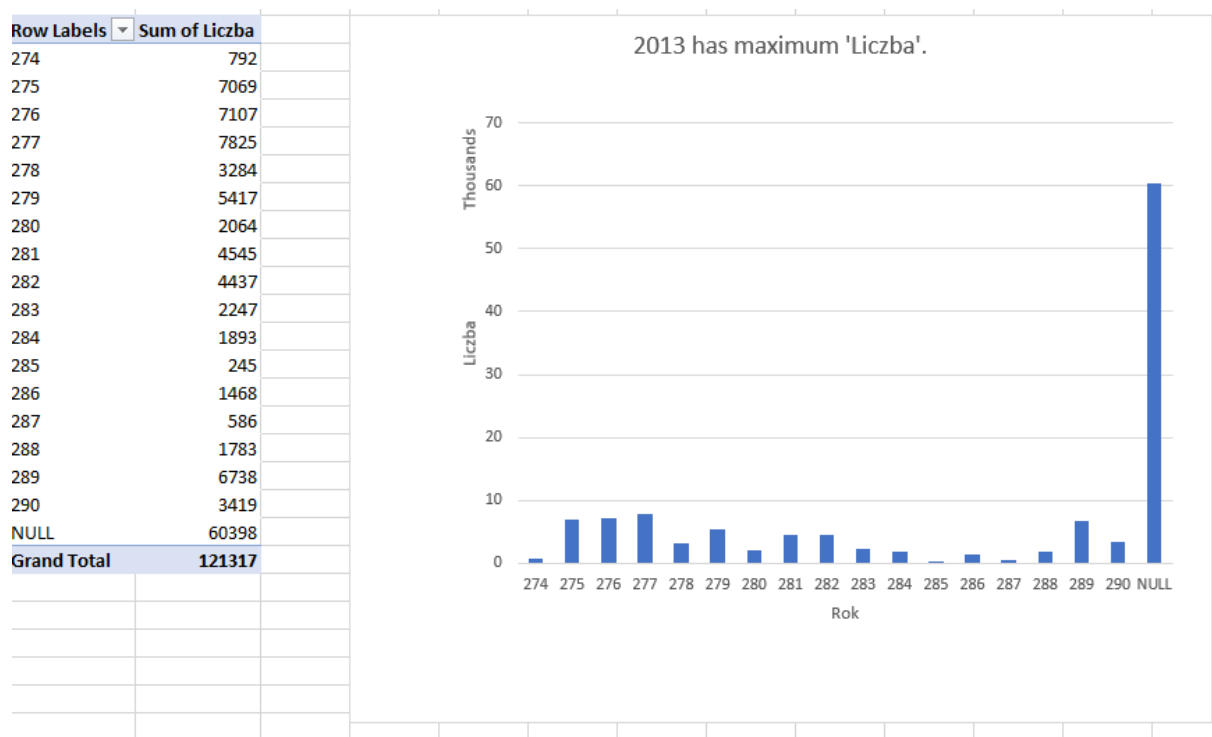


## Zad 1.6

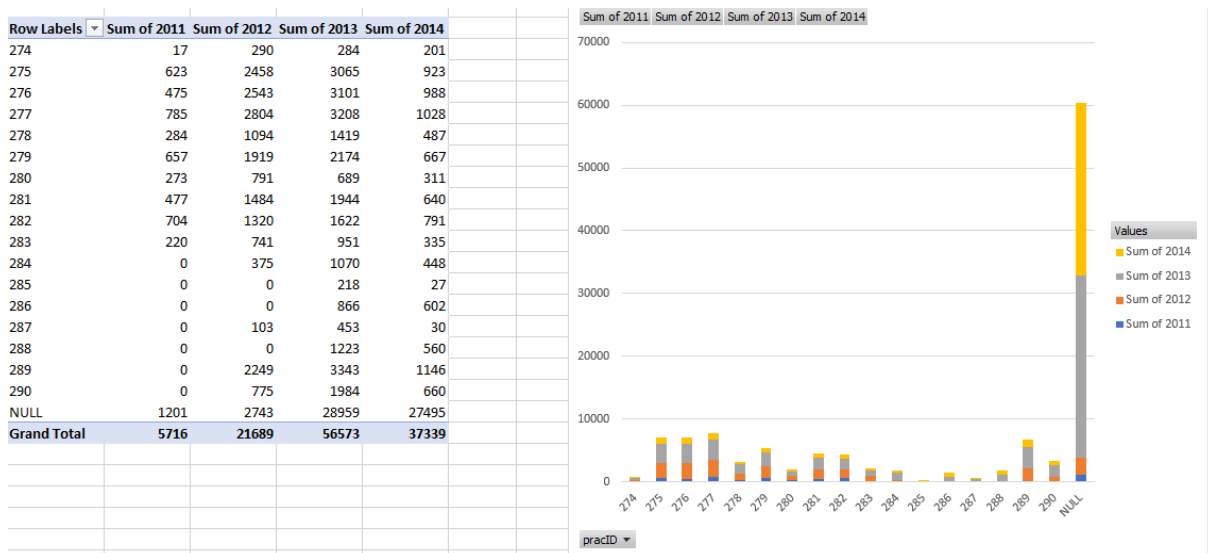
```
SELECT * FROM (
SELECT PER.FirstName "Imie", PER.LastName "Nazwisko", COUNT(DISTINCT
SOH.SalesOrderID) "Liczba",
    SUM(DISTINCT SOH.TotalDue) "Kwota", CASE
        WHEN (SELECT TOP 1 COUNT(DISTINCT SOH_2.SalesOrderID)
            FROM Sales.Customer C_2
            JOIN Sales.SalesOrderHeader SOH_2 ON
SOH_2.CustomerID=C_2.CustomerID
            WHERE C_2.CustomerID=C.CustomerID
            GROUP BY YEAR(SOH_2.DueDate)
            ORDER BY COUNT(DISTINCT SOH_2.SalesOrderID)
        ) >= 2 AND (SELECT COUNT(*) FROM (SELECT COUNT(DISTINCT
SOH_2.SalesOrderID) "test123"
            FROM Sales.Customer C_2
            JOIN Sales.SalesOrderHeader SOH_2 ON
SOH_2.CustomerID=C_2.CustomerID
            WHERE C_2.CustomerID=C.CustomerID
            GROUP BY YEAR(SOH_2.DueDate)) something)=4
        AND (SELECT TOP 1 COUNT(DISTINCT SOH_2.SalesOrderID) FROM
Sales.SalesOrderHeader SOH_2
            WHERE SOH_2.CustomerID=C.CustomerID AND
            SOH_2.TotalDue > 1.5 * (SELECT
AVG(SOH_3.TotalDue) FROM Sales.SalesOrderHeader SOH_3)
            GROUP BY YEAR(SOH_2.DueDate) ORDER BY 1) >= 2
        THEN 'Platynowa'
        WHEN (SELECT COUNT(DISTINCT SOH_2.SalesOrderID) FROM
Sales.SalesOrderHeader SOH_2
            WHERE SOH_2.CustomerID=C.CustomerID AND
SOH_2.TotalDue > 1.5 *
            (SELECT AVG(SOH_3.TotalDue) FROM
Sales.SalesOrderHeader SOH_3)) >= 2
        THEN 'Złota'
        WHEN COUNT(DISTINCT SOH.SalesOrderID) >= 5 THEN 'Srebrna'
    END "Karta" FROM Sales.Customer C
    JOIN Sales.SalesOrderHeader SOH ON SOH.CustomerID=C.CustomerID
    JOIN Person.Person PER ON PER.BusinessEntityID=C.PersonID
    JOIN Sales.SalesOrderDetail SOD ON
SOD.SalesOrderID=SOH.SalesOrderID
    GROUP BY PER.FirstName, PER.LastName, C.CustomerID) MAIN
WHERE Karta IS NOT NULL
ORDER BY 2, 1;
```

	Imie	Nazwisko	Liczba	Kwota	Karta
1	Catherine	Abel	4	127379,7919	Zlota
2	Kim	Abercrombie	12	584949,1308	Platynowa
3	Humberto	Acevedo	11	74786,2928	Platynowa
4	Gustavo	Achong	7	147804,9208	Zlota
5	Pilar	Ackerman	4	249804,8673	Zlota
6	Carla	Adams	4	98273,5468	Zlota
7	Frances	Adams	12	428350,5326	Zlota
8	Jay	Adams	6	158025,1722	Zlota
9	Kaitlyn	Adams	5	297,3336	Srebna
10	Miguel	Adams	5	259,6862	Srebna
11	Samuel	Agcaoli	9	18275,1045	Srebna
12	Robert	Ahlering	4	107741,109	Zlota
13	Kim	Akers	8	3974,607	Srebna
14	Stanley	Alan	4	244854,0475	Zlota
15	Amy	Alberts	8	264645,3146	Zlota
16	Anna	Albright	7	146870,6749	Zlota

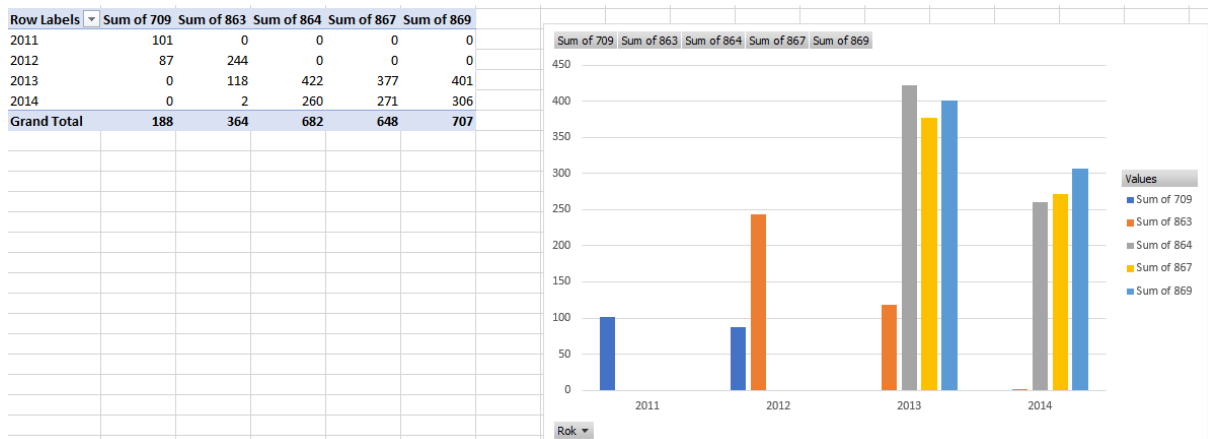
## Zad 2.1.1



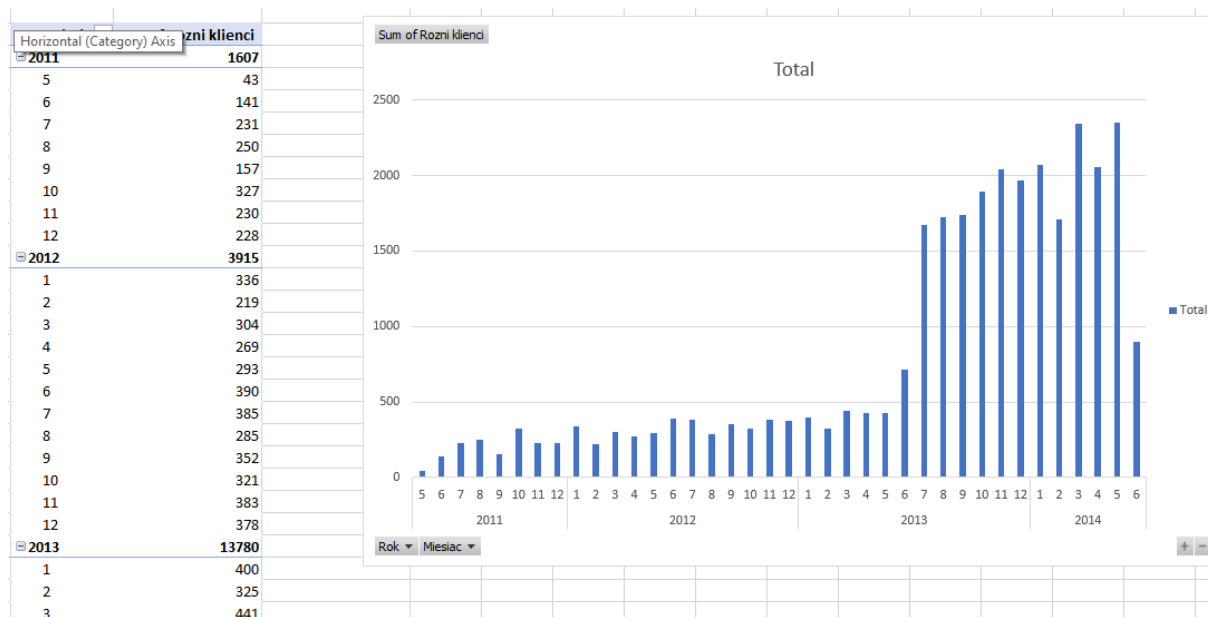
## Zad 2.1.1a



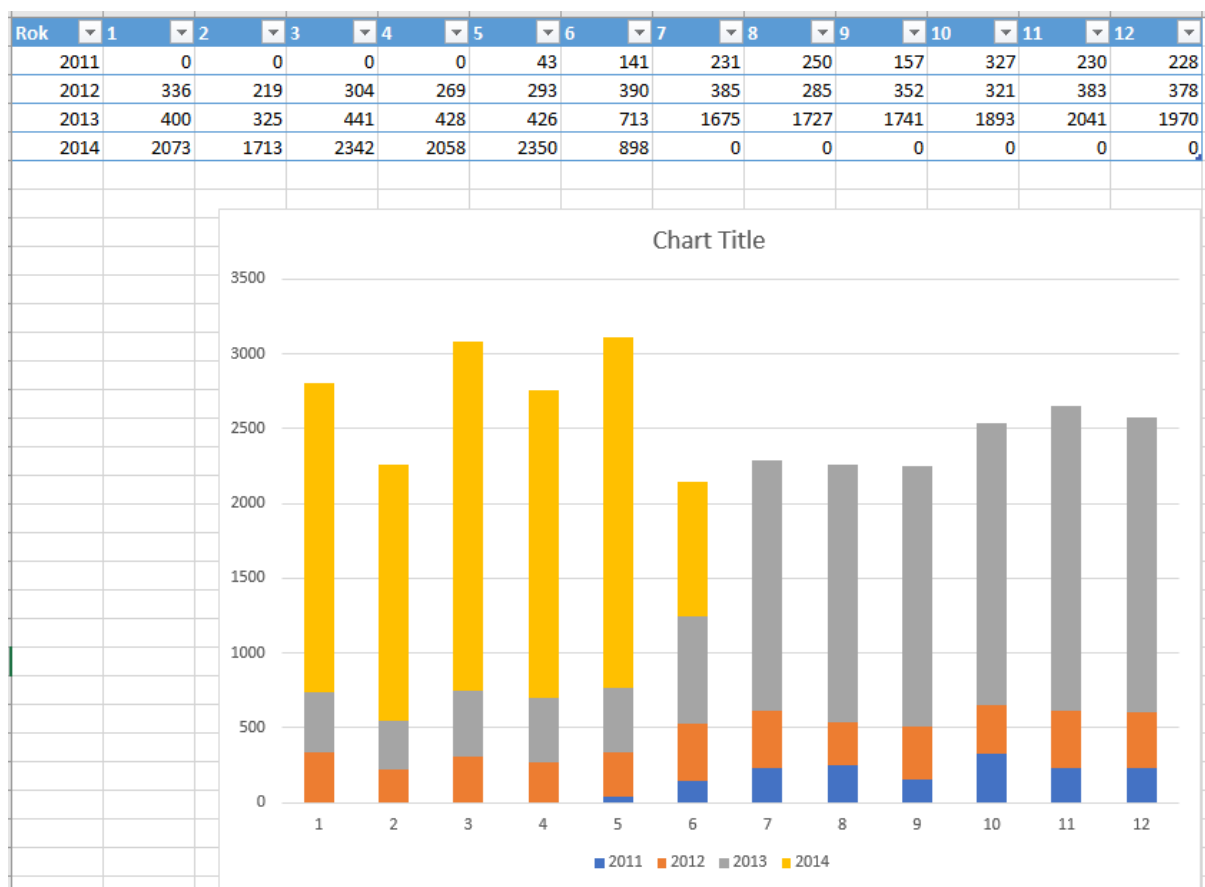
## Zad 2.1.1b



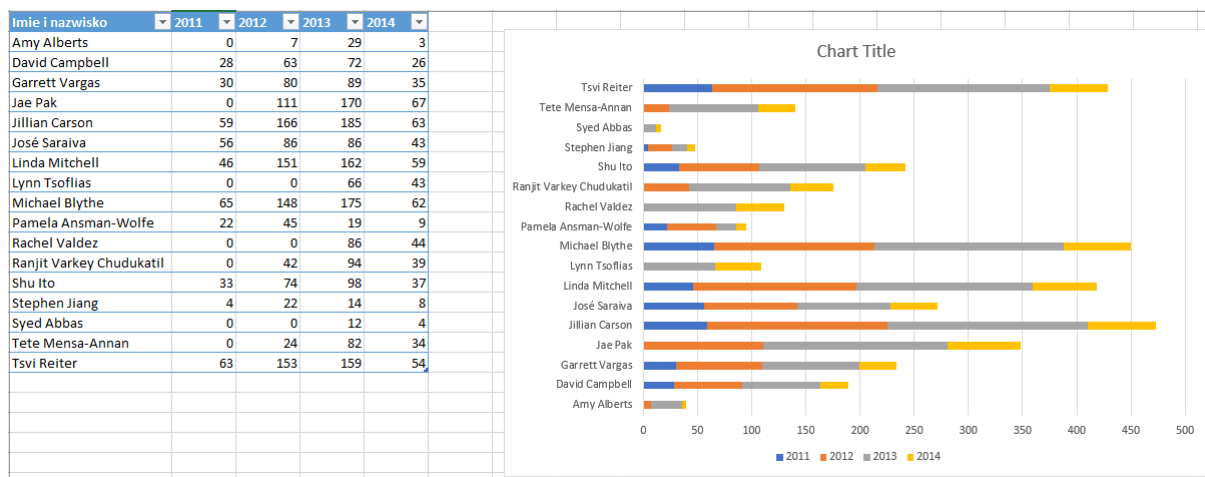
## Zad 2.1.2



## Zad 2.1.2b

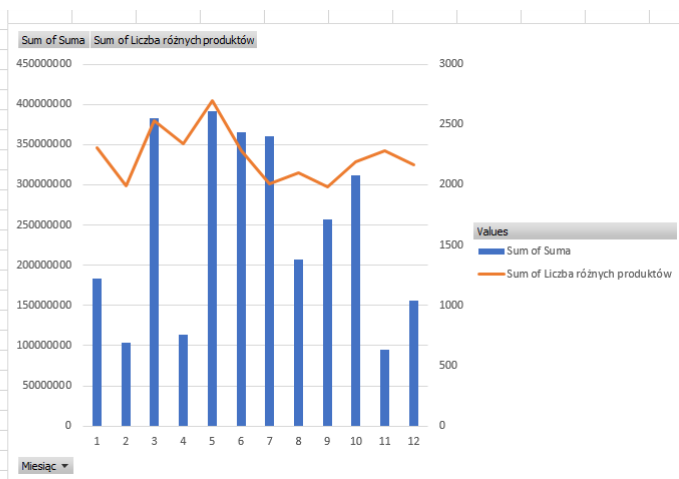


## Zad 2.1.3



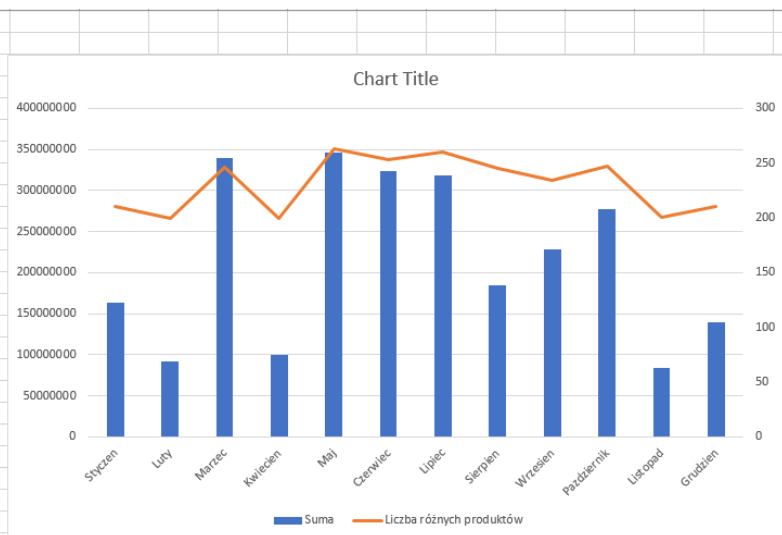
## Zad 2.1.4

Row Labels	Sum of Suma	Sum of Liczba różnych produktów
1	183378292,8	2306
2	103403614,4	1991
3	382618986,2	2531
4	113514051	2336
5	390954184,8	2701
6	365654294,5	2280
7	360088403,3	2005
8	207215346	2102
9	256880446,3	1982
10	311820065,3	2193
11	94933254,06	2285
12	156509185,3	2166
Grand Total	2926970124	26878



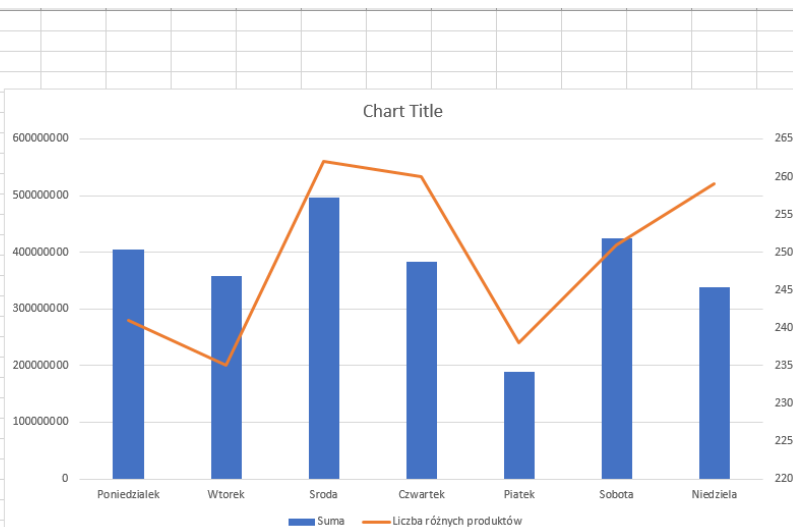
## Zad 2.1.5

Miesiąc	Suma	Liczba różnych produktów
Styczen	162948889,4	211
Luty	91887841,97	200
Marzec	339699263,3	246
Kwiecien	100265759,6	200
Maj	346435416,9	263
Czerwiec	323879162,9	253
Lipiec	318807487,2	260
Sierpień	183995405,5	245
Wrzesień	228138296,6	234
Pazdziernik	276923981,7	247
Listopad	84420434,58	201
Grudzien	139068517,1	211

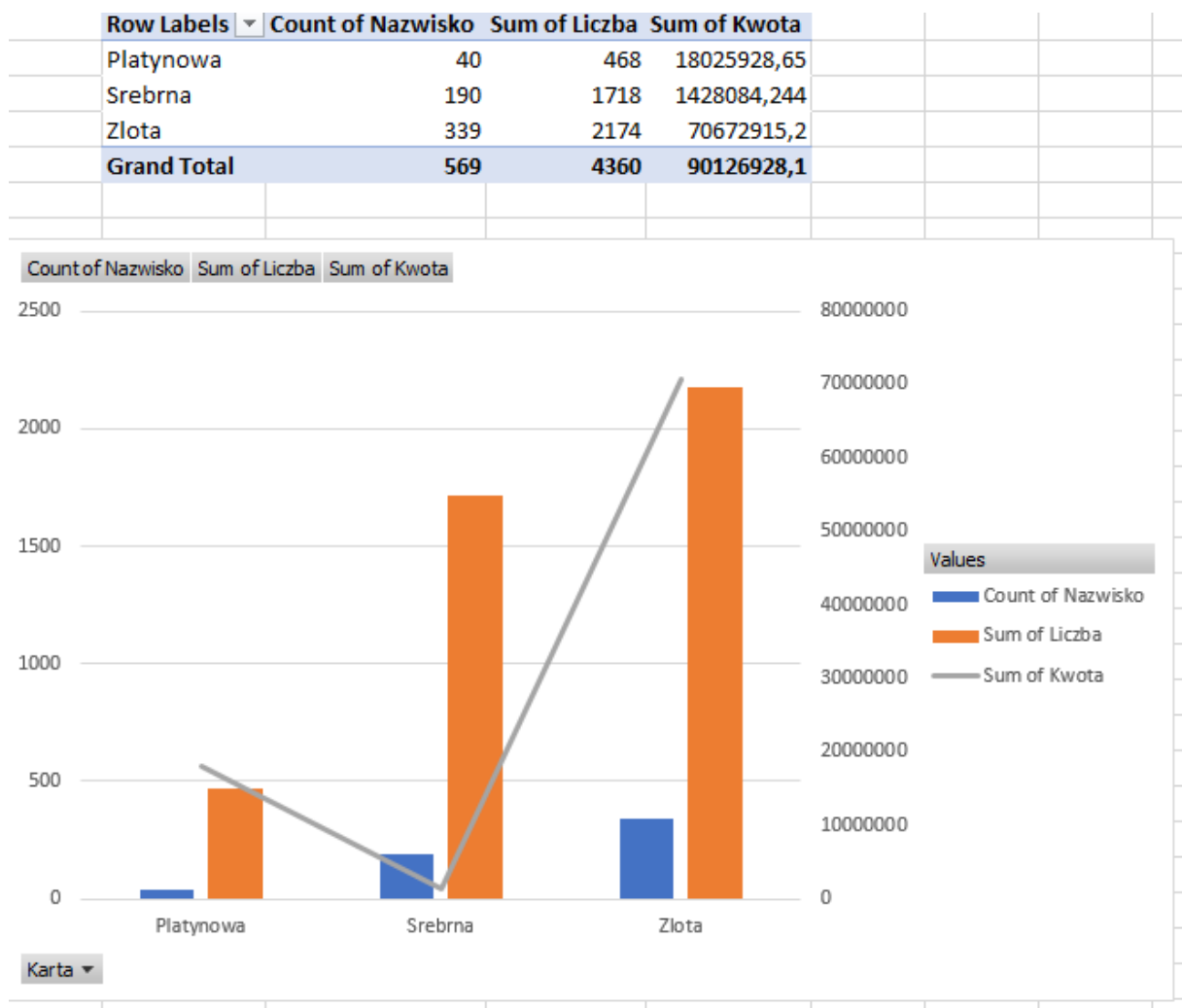


## Zad 2.1.5b

Dzień tygodnia	Suma	Liczba różnych produktów
Poniedziałek	405243001	241
Wtorek	358301922,3	235
Sroda	496891402,9	262
Czwartek	383509044,1	260
Piatek	188847380,8	238
Sobota	425217167,4	251
Niedziela	338460538,2	259

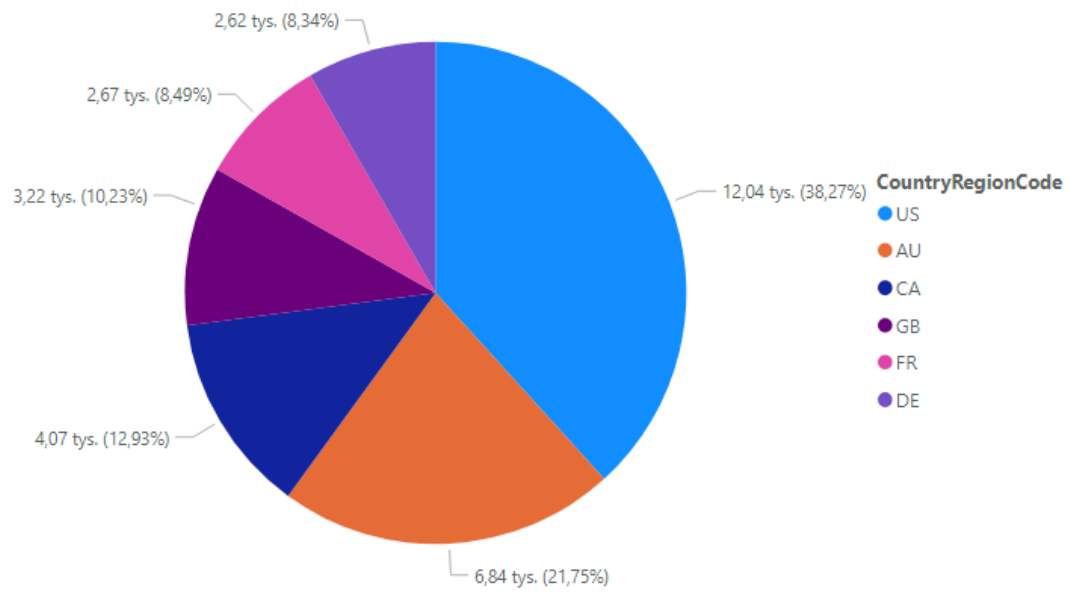


## Zad 2.1.6



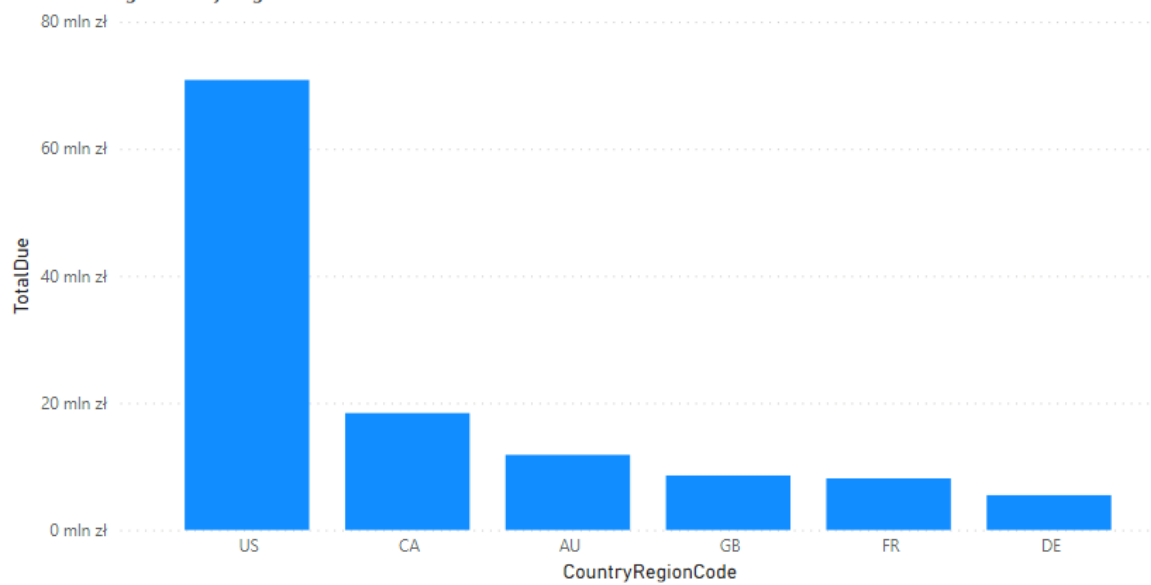
## Zad 2.2.1

Liczba elementów SalesOrderID wg CountryRegionCode



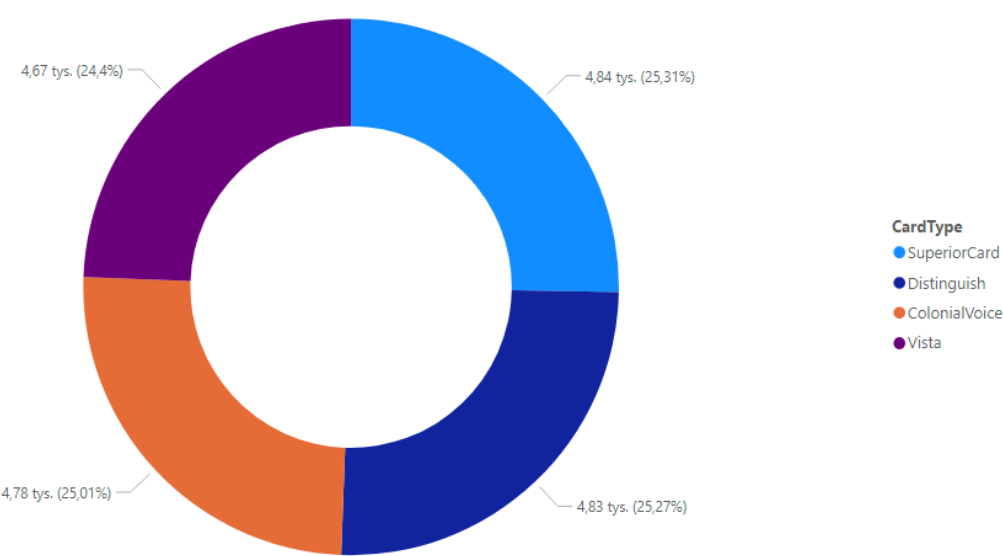
## Zad 2.2.2

TotalDue wg CountryRegionCode



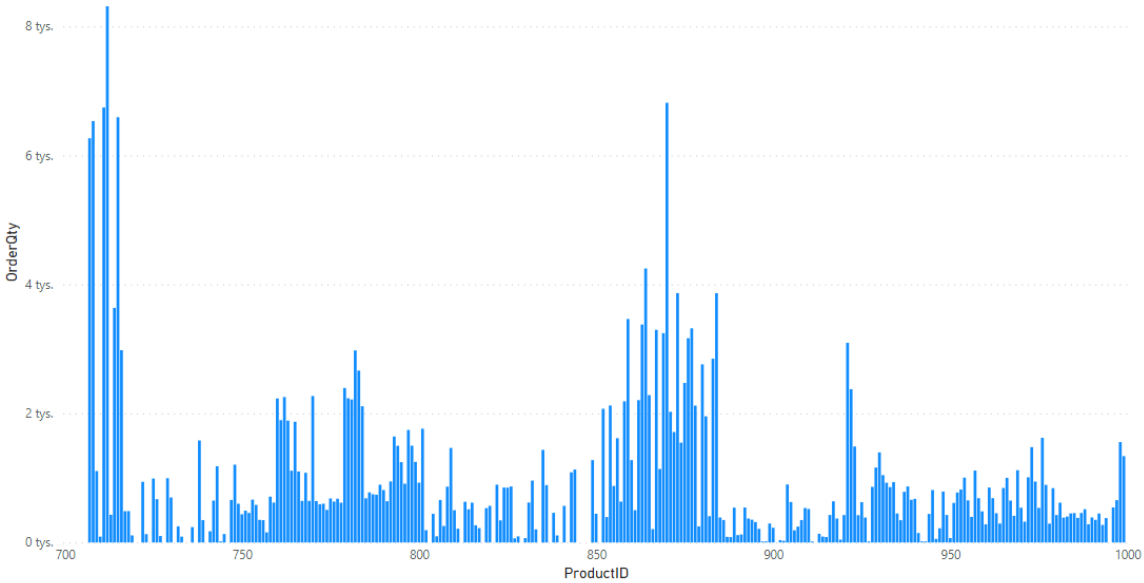
## Zad 2.2.3

CreditCardID wg CardType



Zad 2.2.4

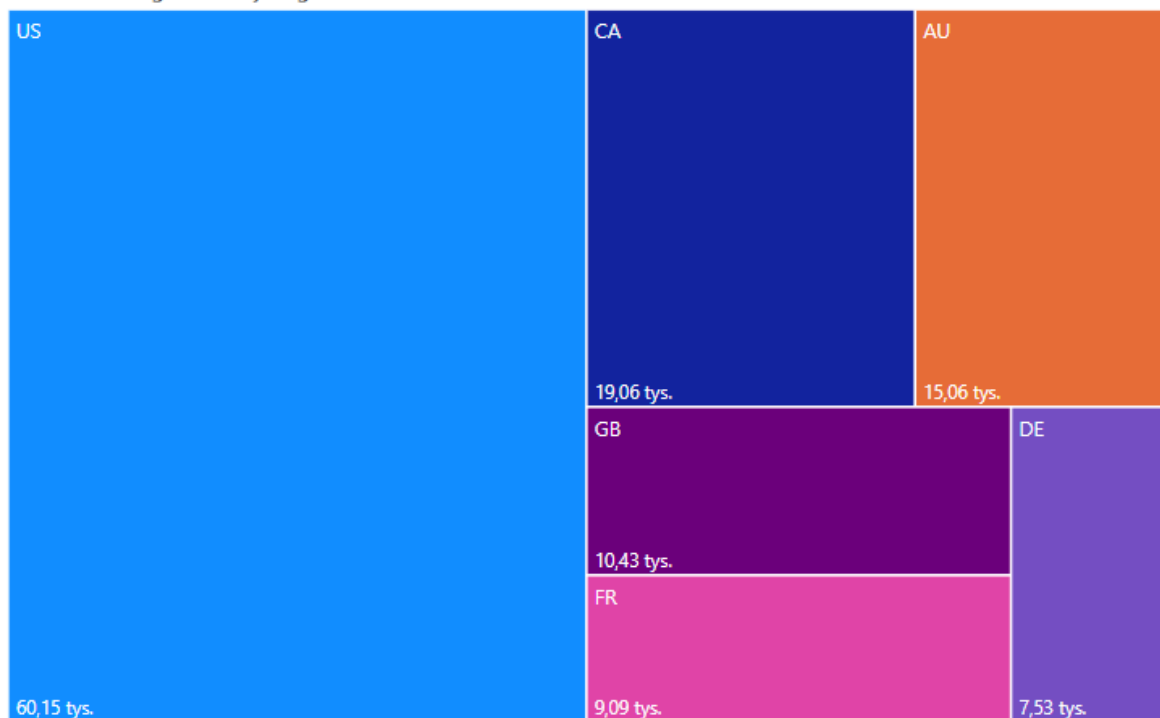
OrderQty wg ProductID



Zad 2.2.5



## ProductID wg CountryRegionCode



## Zad 3.1

Flat File Source

ADO NET Destination

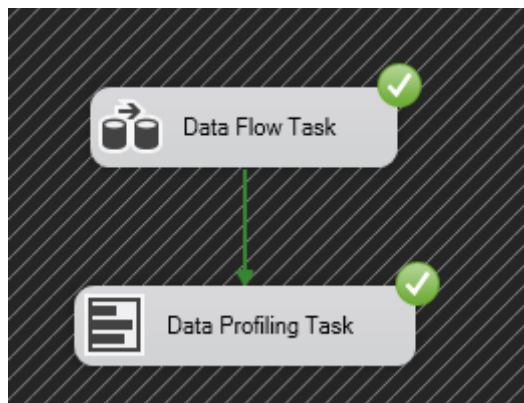
2\_Z3 L2\_Z3.xml dane\_1

**Connection Manager**  
**Mappings**  
Error Output

Available Input Columns

Name
Data zamówienia
Kraj odbiorcy
Cena jednostkowa
Ilość
Nazwa produktu
Nazwisko
Stanowisko

Input Column	Destination Column
Data zamówienia	Data zamówienia
Kraj odbiorcy	Kraj odbiorcy
Cena jednostkowa	Cena jednostkowa
Ilość	Ilość
Nazwa produktu	Nazwa produktu
Nazwisko	Nazwisko
Stanowisko	Stanowisko
Region	Region



## Zad 3.2

SSIS Desktop Data Profiling tool interface showing the results of a data profiling task.

**Left Panel (Tree View):**

- AdventureWorks2019
  - Tables
    - [dbo].[ADO NET Dane1]
      - Column Length Distribution Profiles
      - Column Null Ratio Profiles**
      - Column Pattern Profiles
      - Column Value Distribution Profiles

**Top Panel (Table View):**

Column	Null Count	Null Percentage
Cena jednostkowa	0	0.0000 %
Data zamówienia	0	0.0000 %
Ilość	0	0.0000 %
Kraj odbiorcy	0	0.0000 %
Nazwa produktu	0	0.0000 %
Nazwisko	0	0.0000 %
Region	1704	26.3573 %
Stanowisko	0	0.0000 %

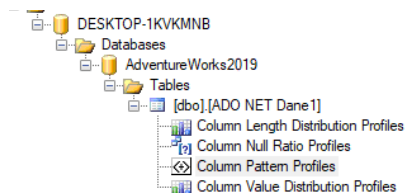
**Bottom Panel (Table View):**

Column Length Distribution Profiles - [dbo].[ADO NET Dane1]

Column	Minimum Length	Maximum Length	Ignore Leading Spaces
Cena jednostkowa	7	9	<input type="checkbox"/>
Data zamówienia	10	10	<input type="checkbox"/>
Ilość	1	3	<input type="checkbox"/>
Kraj odbiorcy	3	15	<input type="checkbox"/>
Nazwa produktu	4	32	<input type="checkbox"/>
Nazwisko	4	9	<input type="checkbox"/>
Region	2	2	<input type="checkbox"/>
Stanowisko	22	33	<input type="checkbox"/>

**Length Distribution - Nazwisko** (Encrypted Connection, 1000 Rows)

Length	Count	Percentage
9	1284	19.8608 %
6	1227	18.9791 %
7	2295	35.4988 %
4	528	8.1671 %
8	1131	17.4942 %

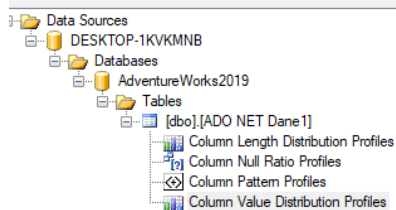


Cena jednostkowa	Approximate
Data zamówienia	Approximate
Ilość	Approximate
Kraj odbiorcy	Approximate
Nazwa produktu	Approximate
Nazwisko	Approximate
Region	Exact
Stanowisko	Approximate

Pattern Distribution - Nazwa produktu			Encrypted Connection	1000 Rows
No.	Pattern	Pattern Percentage		
1	\p(L)+ \p(L)+	43		
2	\p(L)+	22		
3	\p(L)+ \p(L)+ \p(L)+	14		
4	\p(L)+ \p(L)+ \p(L)+ \p(L)+	7		
5	\p(L)+ \p(L)+S (\p(L)+)+	5		
6	(\p(L)+)+	1		

Open Refresh

Files (Table View)



Column Value Distribution Profiles - [dbo].[ADO NET Dane1]

Column	Number Of Distinct Values
Nazwa produktu	77
Nazwisko	9
Region	1
Stanowisko	4

Frequent Value Distribution (0.1000 %) - Stanowisko			Encrypted Connection	1000 Rows
Value	Count	Percentage		
Przedstawiciel handlowy	4611	71.3225 %		
Wiceprezes ds. sprzedaży	723	11.1833 %		
Dyrektor ds. sprzedaży	351	5.4292 %		
Koordinator sprzedaży we...	780	12.0650 %		

Profiles (Table View)

Data Sources
DESKTOP-1KVKMNB
Databases
AdventureWorks2019
Tables
[dbo].[ADO NET DANE\_CSV]
Column Length Distribution Profiles
Column Null Ratio Profiles
Column Pattern Profiles
Column Value Distribution Profiles

Tables
[dbo].[ADO NET DANE\_CSV]
Column Length Distribution Profiles
Column Null Ratio Profiles
Column Pattern Profiles
Column Value Distribution Profiles

Column Null Ratio Profiles - [dbo].[ADO NET DANE\_CSV]

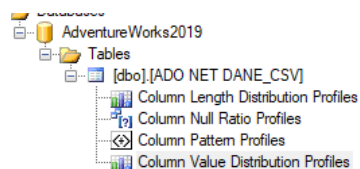
Column	Null Count
GMT	0
London Mean Background Nitri...	0
London Mean Background Nitro...	0
London Mean Background Oxid...	0
London Mean Background Ozo...	0
London Mean Background PM1...	0
London Mean Background PM2...	0
London Mean Background Sulp...	0
London Mean Roadside Nitric O...	0
London Mean Roadside Nitroge...	0
London Mean Roadside Oxides...	0
London Mean Roadside Ozone...	0
London Mean Roadside PM10...	0
London Mean Roadside PM2 5...	0
London Mean Roadside Sulphu...	0
Month (text)	0

Length Distribution - London Mean Background Oxides of Nitrogen (ug m3)

1000 Rows

Length	Count	Percentage
0	1152	18.1818 %
6	18	0.2841 %
18	1638	25.8523 %
4	38	0.5997 %
5	216	3.4091 %
16	254	4.0088 %

Successfully loaded data profile from C:\Users\HDIVirtual\Desktop\lab\lista2\zad3\_dane2.xml ...



London Mean Background...	2975
London Mean Background...	2897
London Mean Background...	2573
London Mean Roadside Nit...	2577

Frequent Value Distribution (0.1000 %) - London Mean Background Sulphur Dioxide (ug m3)				
Value	Count	Percentage		
2.9322580645161294		10		0.1578 %
2.3548387096774195		8		0.1263 %
2.032258064516129		8		0.1263 %
2.8		10		0.1578 %
4.935483870967742		8		0.1263 %
2.7838709677419358		8		0.1263 %
3.1333333333333333		8		0.1263 %
2.4838709677419355		12		0.1894 %
2.8387096774193545		8		0.1263 %
2.709677419354838		8		0.1263 %
3.466666666666667		8		0.1263 %
2.580645161290323		8		0.1263 %

Successfully loaded data profile from C:\Users\HDVirtual\Desktop\lab\lista2\zad3_dane2.xml ...				
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## **Wnioski:**

- Polecenia 'CASE' oraz 'PIVOT' w ramach SQL'a pozwalają na uzyskanie tabel przestawnych, które w bardzo czytelny sposób przedstawiają zależności między danymi w naszej hurtowni
- Narzędzia takie jak PowerBI, Tableau czy też Excel zapewniają możliwość wygenerowania wielu rodzajów wykresów. Pozwala to przedstawić pewne trendy zachodzące wśród danych w bardzo obrazowy i przejrzysty sposób
- SQL Server Integration Services (SSIS) pozwala wyprofilować nasze źródło danych pod wieloma względami. Zapewnia to unikalne spojrzenie na strukturę naszych danych i pozwala przemyśleć czy aktualna architektura na pewno jest sensowna (np. ze względu na procentowo duży udział wartości NULL w ramach jakiejś kolumny LUB ze względu na procentowy udział długości danych)