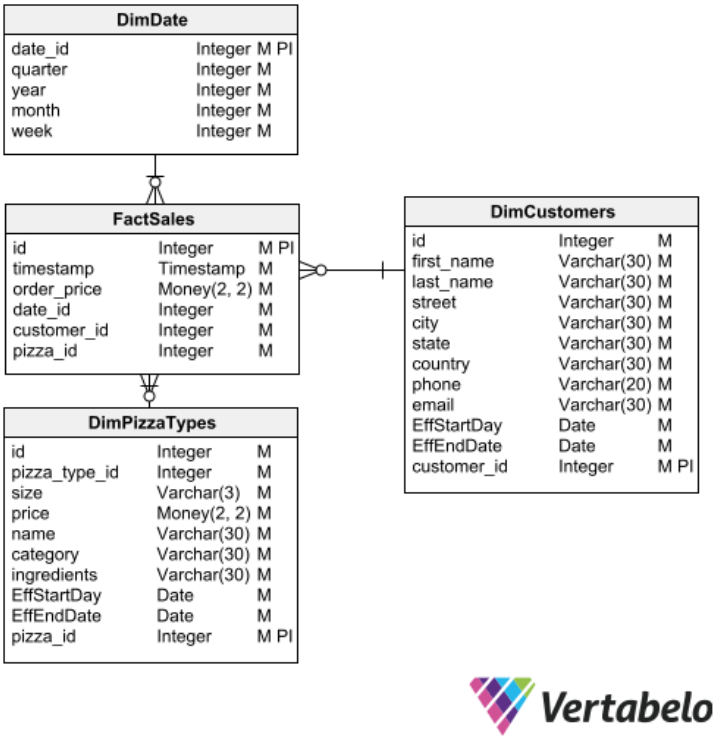
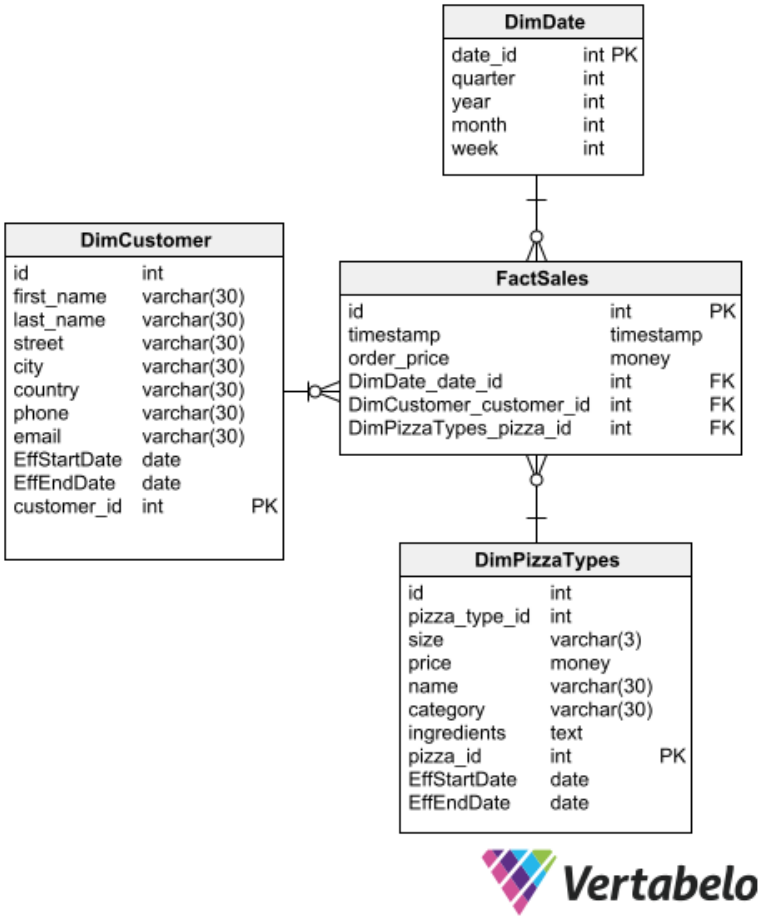
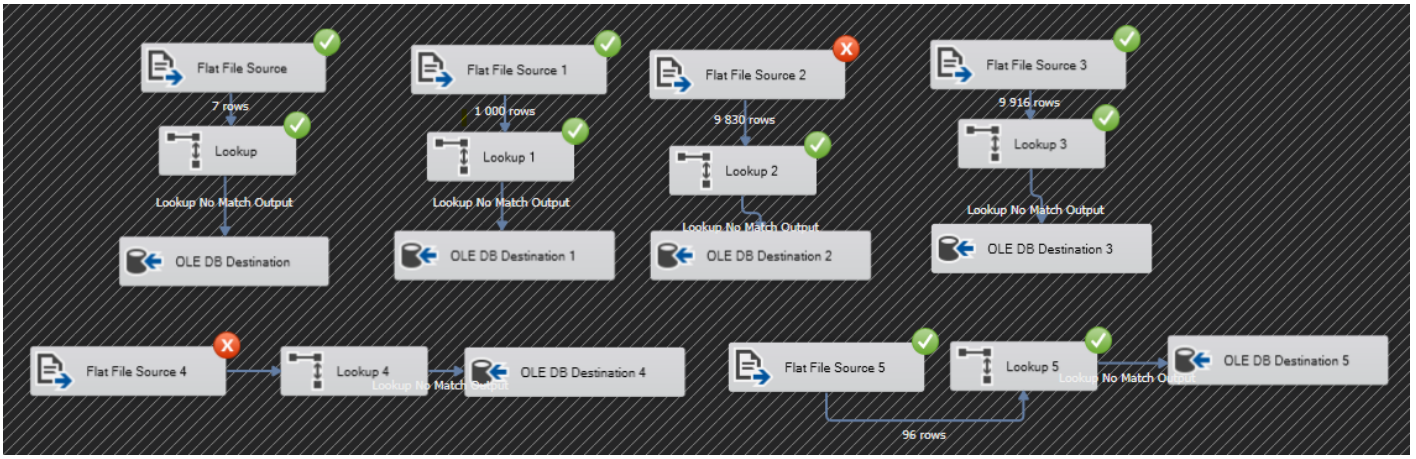
Zad 1
Model logiczny:



Model fizyczny:

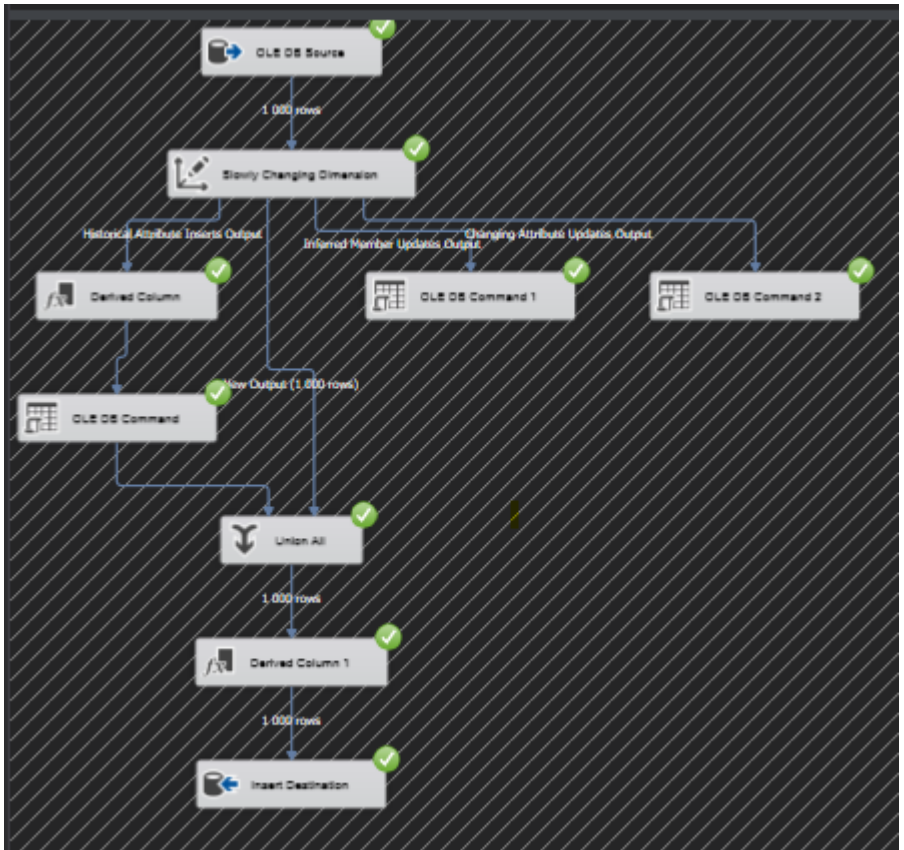


Zad 2



Zad 3

```
use lab4_prod
CREATE TABLE [dbo].[Customers](
    id_num int IDENTITY(1,1),
    [id] [varchar](50) NULL,
    [first_name] [varchar](50) NULL,
    [last_name] [varchar](50) NULL,
    [street] [varchar](50) NULL,
    [city] [varchar](50) NULL,
    [state] [varchar](50) NULL,
    [country] [varchar](50) NULL,
    [phone] [varchar](50) NULL,
    [email] [varchar](50) NULL,
    eff_start_date [date] Null,
    eff_end_date [date] Null,
) ON [PRIMARY]
```

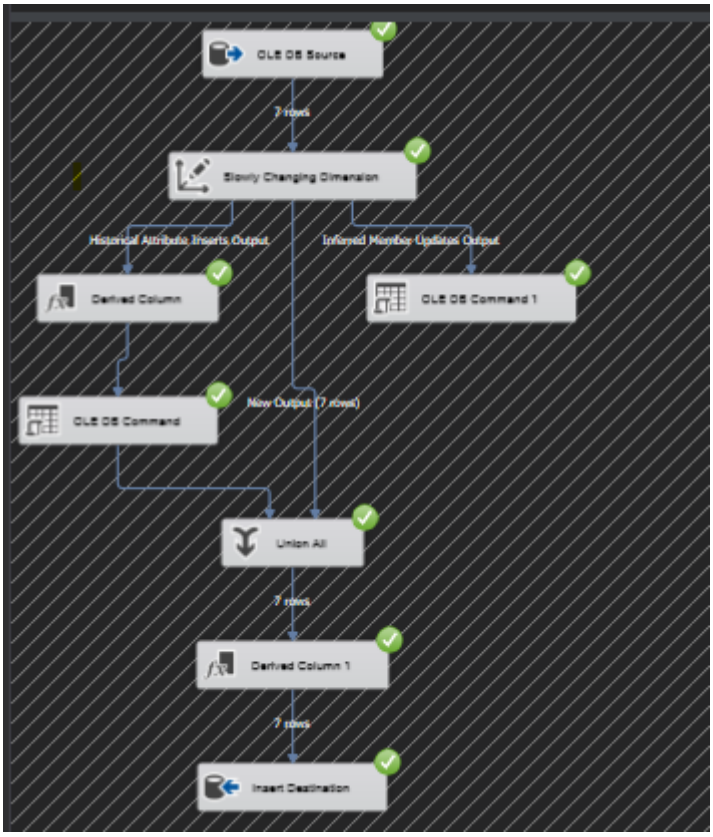


Zad 5

```sql
CREATE TABLE dbo.DimDate (
    [DateKey] int NOT NULL,
    [Date] date NOT NULL,
    [Day] int NOT NULL,
    [WeekOfYear] int NOT NULL,
    [Month] int NOT NULL,
    [Quarter] int NOT NULL,
    [Year] int NOT NULL
)

DECLARE @StartDate  date = '2015-01-01';
DECLARE @EndDate date = DATEADD(DAY, -1, DATEADD(YEAR, 10, @StartDate));

WHILE @StartDate < @EndDate
BEGIN
   INSERT INTO [dbo].[DimDate] (
    [DateKey],
    [Date],
    [Day],
    [WeekOfYear],
    [Month],
    [Quarter],
    [Year]
    )
    SELECT DateKey = YEAR(@StartDate) * 10000 + MONTH(@StartDate) * 100 + DAY(@StartDate),
      DATE = @StartDate,
      Day = DAY(@StartDate),
      [WeekOfYear] = DATEPART(wk, @StartDate),
      [Month] = MONTH(@StartDate),
      [Quarter] = DATEPART(q, @StartDate),
      [Year] = YEAR(@StartDate)

   SET @StartDate = DATEADD(DD, 1, @StartDate)
END
```

Results Messages

	DateKey	Date	Day	WeekOfYear	Month	Quarter	Year
1	20150101	2015-01-01	1	1	1	1	2015
2	20150102	2015-01-02	2	1	1	1	2015
3	20150103	2015-01-03	3	1	1	1	2015
4	20150104	2015-01-04	4	2	1	1	2015
5	20150105	2015-01-05	5	2	1	1	2015
6	20150106	2015-01-06	6	2	1	1	2015
7	20150107	2015-01-07	7	2	1	1	2015
8	20150108	2015-01-08	8	2	1	1	2015
9	20150109	2015-01-09	9	2	1	1	2015
10	20150110	2015-01-10	10	2	1	1	2015
11	20150111	2015-01-11	11	3	1	1	2015
12	20150112	2015-01-12	12	3	1	1	2015
13	20150113	2015-01-13	13	3	1	1	2015
14	20150114	2015-01-14	14	3	1	1	2015
15	20150115	2015-01-15	15	3	1	1	2015
16	20150116	2015-01-16	16	3	1	1	2015
17	20150117	2015-01-17	17	3	1	1	2015
18	20150118	2015-01-18	18	4	1	1	2015
19	20150119	2015-01-19	19	4	1	1	2015
20	20150120	2015-01-20	20	4	1	1	2015
21	20150121	2015-01-21	21	4	1	1	2015

Zad 6

```
CREATE TABLE [dbo].[Carrier](
    [carrier_key] int IDENTITY(1, 1),
    [carrier_id] [varchar](50) NULL,
    [carrier_name] [varchar](50) NULL,
    [address] [varchar](50) NULL,
    [tax_id] [varchar](50) NULL,
    [contact_person] [varchar](50) NULL,
    [EffStartDate] date,
    [EffEndDate] date,
)
```