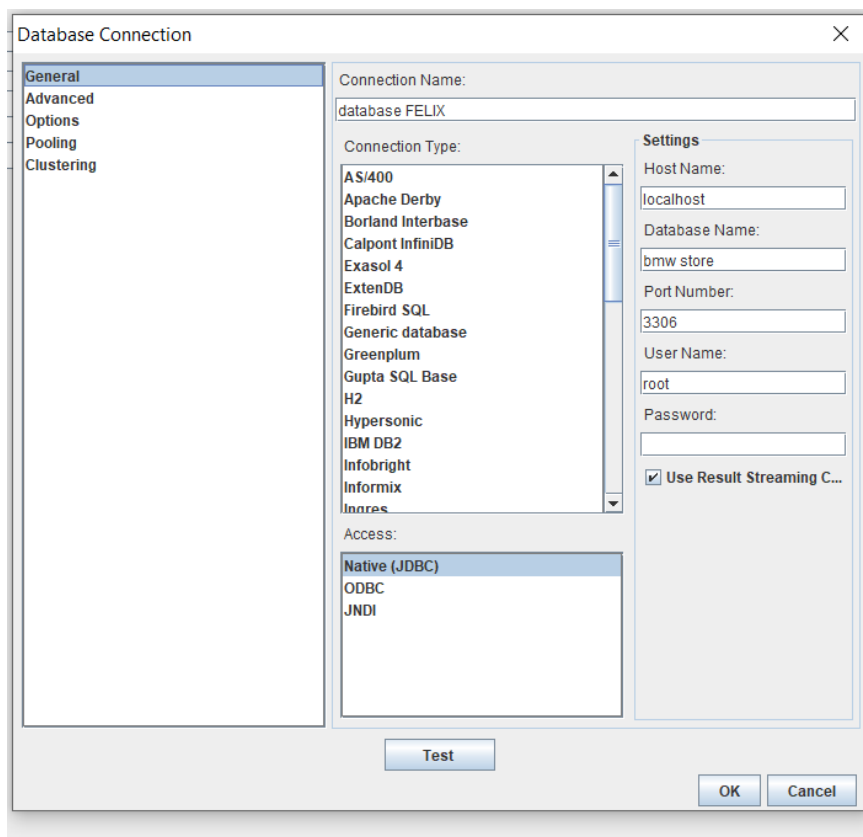
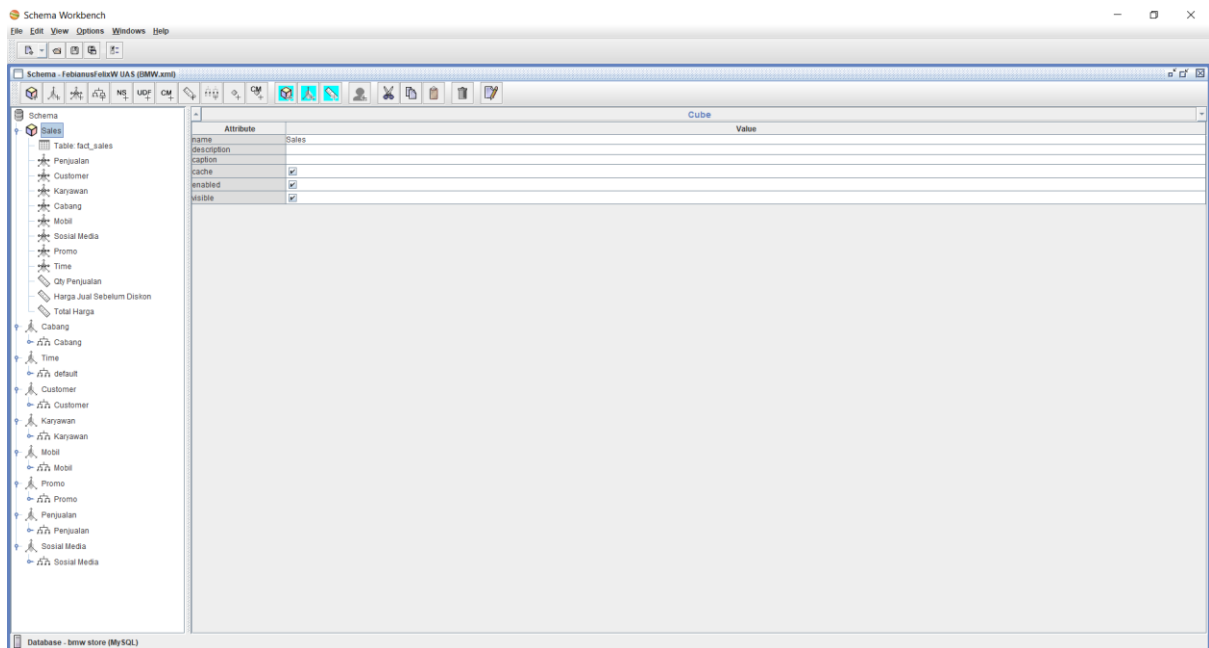
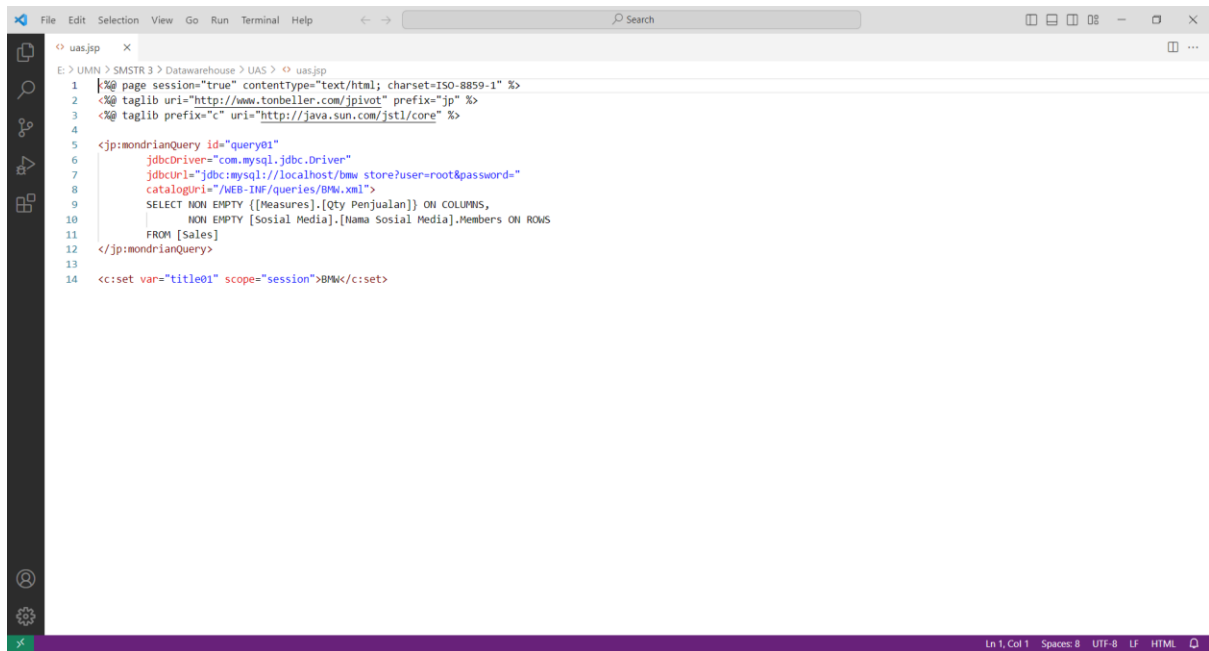


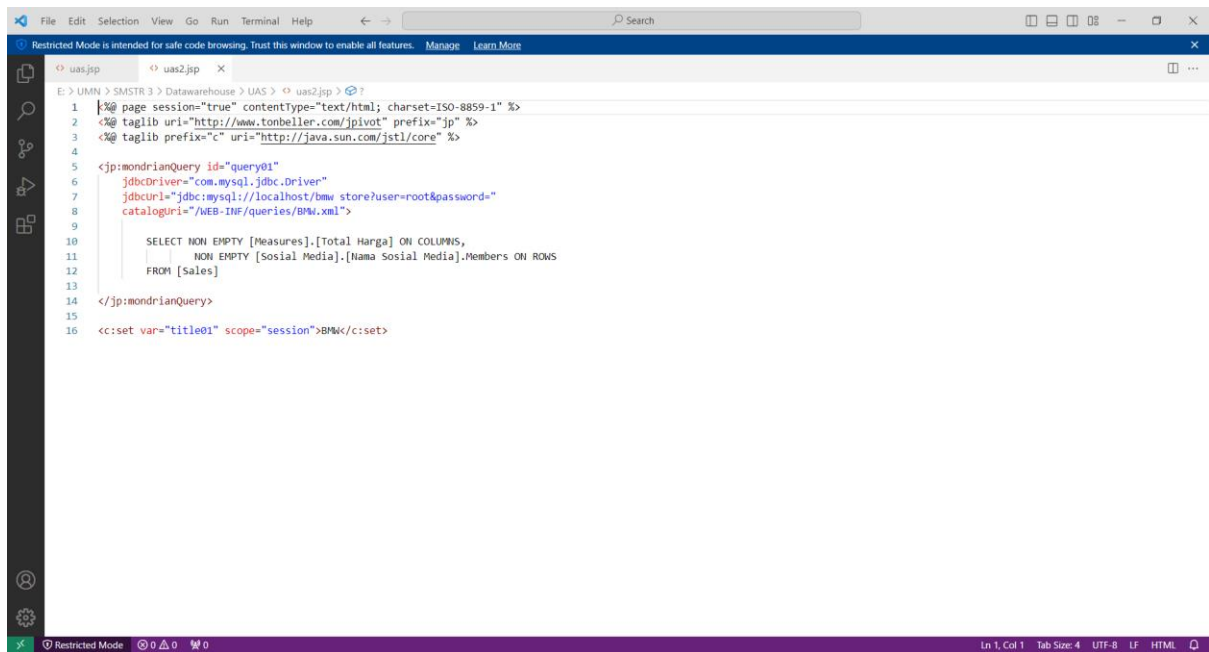
XML Schema Workbench :



JSP :



```
1 <%@ page session="true" contentType="text/html; charset=ISO-8859-1" %>
2 <%@ taglib uri="http://www.tonbeller.com/jpivot" prefix="jp" %>
3 <%@ taglib prefix="c" uri="http://java.sun.com/jstl/core" %>
4
5 <jp:mondrianQuery id="query01"
6     jdbcDriver="com.mysql.jdbc.Driver"
7     jdbcUrl="jdbc:mysql://localhost/bmw store?user=root&password="
8     catalogUri="/WEB-INF/queries/BMW.xml">
9     SELECT NON EMPTY {[Measures].[Qty Penjualan]} ON COLUMNS,
10     NON EMPTY [Social Media].[Nama Sosial Media].Members ON ROWS
11     FROM [Sales]
12 </jp:mondrianQuery>
13
14 <:set var="title01" scope="session">BMW</c:set>
```



```
1 <%@ page session="true" contentType="text/html; charset=ISO-8859-1" %>
2 <%@ taglib uri="http://www.tonbeller.com/jpivot" prefix="jp" %>
3 <%@ taglib prefix="c" uri="http://java.sun.com/jstl/core" %>
4
5 <jp:mondrianQuery id="query01"
6     jdbcDriver="com.mysql.jdbc.Driver"
7     jdbcUrl="jdbc:mysql://localhost/bmw store?user=root&password="
8     catalogUri="/WEB-INF/queries/BMW.xml">
9     SELECT NON EMPTY [Measures].[Total Harga] ON COLUMNS,
10     NON EMPTY [Social Media].[Nama Sosial Media].Members ON ROWS
11     FROM [Sales]
12 </jp:mondrianQuery>
13
14 <:set var="title01" scope="session">BMW</c:set>
```

```

BMW.xml
<Schema name="FebianusFelixW UAS">
  <Dimension type="StandardDimension" visible="true" highCardinality="false" name="Cabang">
    <Hierarchy name="Cabang" visible="true" hasAll="true" allMemberName="Semua Cabang" primaryKey="PK_Cabang">
      <Table name="dim_cabang">
      </Table>
      <Level name="Kota" visible="true" column="kota_id" nameColumn="nama_kota" type="String" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
      </Level>
      <Level name="Cabang" visible="true" column="cabang_id" nameColumn="nama_cabang" ordinalColumn="cabang_id" type="String" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
      </Level>
    </Hierarchy>
  </Dimension>
  <Dimension type="TimeDimension" visible="true" highCardinality="false" name="Time">
    <Hierarchy name="default" visible="true" hasAll="true" allMemberName="Semua Time">
      <Table name="dim_penjualan">
      </Table>
      <Level name="Time" visible="true" column="tanggal_penjualan" type="Time" uniqueMembers="false" levelType="TimeDays" hideMemberIf="Never">
      </Level>
    </Hierarchy>
  </Dimension>
  <Dimension type="StandardDimension" visible="true" highCardinality="false" name="Customer">
    <Hierarchy name="Customer" visible="true" hasAll="true" allMemberName="Semua Customer" primaryKey="customer_id">
      <Table name="dim_customer">
      </Table>
      <Level name="Nama Customer" visible="true" column="customer_id" nameColumn="nama" ordinalColumn="customer_id" type="String" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
      </Level>
    </Hierarchy>
  </Dimension>
  <Dimension type="StandardDimension" visible="true" highCardinality="false" name="Karyawan">
    <Hierarchy name="Karyawan" visible="true" hasAll="true" allMemberName="Semua Karyawan" primaryKey="PK_karyawan">
      <Table name="dim_karyawan">
      </Table>
      <Level name="Nama Karyawan" visible="true" column="karyawan_id" nameColumn="Kryan_Full" ordinalColumn="karyawan_id" type="String" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
      </Level>
      <Level name="Cabang Karyawan" visible="true" column="cabang_id" nameColumn="nama_cabang" ordinalColumn="cabang_id" type="String" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
      </Level>
    </Hierarchy>
  </Dimension>
  <Dimension type="StandardDimension" visible="true" highCardinality="false" name="Mobil">
    <Hierarchy name="Mobil" visible="true" hasAll="true" allMemberName="Semua Mobil" primaryKey="PK_mobil">
      <Table name="dim_mobil">
      </Table>
      <Level name="Kategori" visible="true" column="kategori_id" nameColumn="jenis" ordinalColumn="kategori_id" type="String" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
      </Level>
      <Level name="Nama Mobil" visible="true" column="product_id" nameColumn="nama_produk" ordinalColumn="product_id" type="String" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
      </Level>
    </Hierarchy>
  </Dimension>

```

```

BMW.xml
    <Hierarchy name="Mobil" visible="true" hasAll="true" allMemberName="Semua Mobil" primaryKey="PK_mobil">
      <Table name="dim_mobil">
      </Table>
      <Level name="Kategori" visible="true" column="kategori_id" nameColumn="jenis" ordinalColumn="kategori_id" type="String" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
      </Level>
      <Level name="Nama Mobil" visible="true" column="product_id" nameColumn="nama_produk" ordinalColumn="product_id" type="String" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
      </Level>
      <Level name="Harga" visible="true" column="product_id" nameColumn="harga" ordinalColumn="product_id" type="String" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
      </Level>
      <Level name="Qty" visible="true" column="product_id" nameColumn="qty" ordinalColumn="product_id" type="String" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
      </Level>
    </Hierarchy>
  </Dimension>
  <Dimension type="StandardDimension" visible="true" highCardinality="false" name="Promo">
    <Hierarchy name="Promo" visible="true" hasAll="true" allMemberName="Semua" primaryKey="PK_promo">
      <Table name="dim_promo">
      </Table>
      <Level name="Nama Promo" visible="true" column="promo_id" nameColumn="nama_promo" ordinalColumn="nama_promo" type="String" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
      </Level>
      <Level name="Persentase Promo" visible="true" column="PK_promo" nameColumn="persen_diskon" ordinalColumn="promo_id" type="Numeric" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
      </Level>
    </Hierarchy>
  </Dimension>
  <Dimension type="StandardDimension" visible="true" highCardinality="false" name="Penjualan">
    <Hierarchy name="Penjualan" visible="true" hasAll="true" allMemberName="Semua Penjualan" primaryKey="PK_Sales">
      <Table name="dim_penjualan">
      </Table>
      <Level name="Jumlah Penjualan" visible="true" column="PK_Sales" nameColumn="jumlah_penjualan" ordinalColumn="PK_Sales" type="Integer" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
      </Level>
      <Level name="Jumlah Harga" visible="true" column="PK_Sales" nameColumn="jumlah_harga" ordinalColumn="PK_Sales" type="Numeric" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
      </Level>
    </Hierarchy>
  </Dimension>
  <Dimension type="StandardDimension" visible="true" highCardinality="false" name="Sosial Media">
    <Hierarchy name="Sosial Media" visible="true" hasAll="true" allMemberName="Semua Sosial Media" primaryKey="media_id">
      <Table name="dim_sosmed">
      </Table>
      <Level name="Nama Sosial Media" visible="true" column="media_id" nameColumn="nama_media" ordinalColumn="media_id" type="String" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
      </Level>
    </Hierarchy>
  </Dimension>
  <Cube name="Sales" visible="true" cache="true" enabled="true">
    <Table name="fact_sales">
    </Table>
    <DimensionUsage source="Penjualan" name="Penjualan" visible="true" foreignKey="PK_Sales" highCardinality="false">

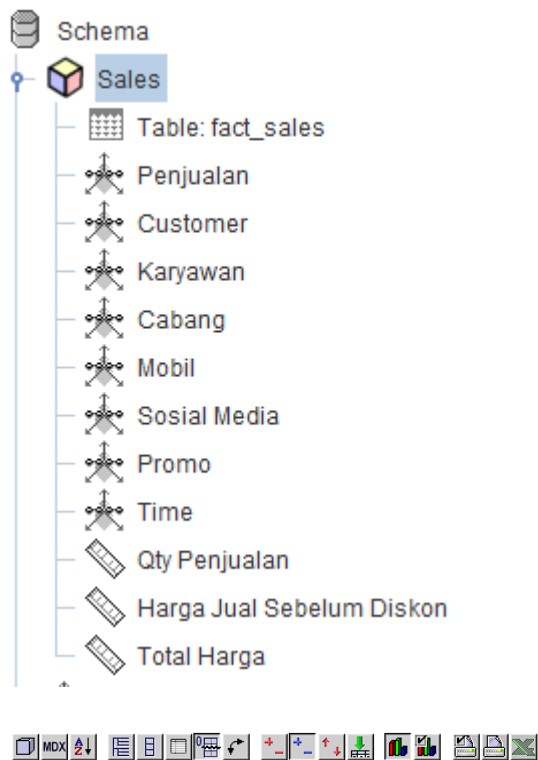
```

```

BMW.xml
    </Level>
    <Level name="Jumlah Harga" visible="true" column="PK_Sales" nameColumn="jumlah_harga" ordinalColumn="PK_Sales" type="Numeric" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
    </Level>
  </Hierarchy>
</Dimension>
<Dimension type="StandardDimension" visible="true" highCardinality="false" name="Sosial Media">
  <Hierarchy name="Sosial Media" visible="true" hasAll="true" allMemberName="Semua Sosial Media" primaryKey="media_id">
    <Table name="dim_sosmed">
    </Table>
    <Level name="Nama Sosial Media" visible="true" column="media_id" nameColumn="nama_media" ordinalColumn="media_id" type="String" uniqueMembers="false" levelType="Regular" hideMemberIf="Never">
    </Level>
  </Hierarchy>
</Dimension>
<Cube name="Sales" visible="true" cache="true" enabled="true">
  <Table name="fact_sales">
  </Table>
  <DimensionUsage source="Penjualan" name="Penjualan" visible="true" foreignKey="PK_Sales" highCardinality="false">
  </DimensionUsage>
  <DimensionUsage source="Customer" name="Customer" visible="true" foreignKey="PK_Customer" highCardinality="false">
  </DimensionUsage>
  <DimensionUsage source="Karyawan" name="Karyawan" visible="true" foreignKey="PK_Karyawan" highCardinality="false">
  </DimensionUsage>
  <DimensionUsage source="Cabang" name="Cabang" visible="true" foreignKey="PK_Cabang" highCardinality="false">
  </DimensionUsage>
  <DimensionUsage source="Mobil" name="Mobil" visible="true" foreignKey="PK_Mobil" highCardinality="false">
  </DimensionUsage>
  <DimensionUsage source="Sosial Media" name="Sosial Media" visible="true" foreignKey="PK_Sosmed" highCardinality="false">
  </DimensionUsage>
  <DimensionUsage source="Promo" name="Promo" visible="true" foreignKey="PK_Promo" highCardinality="false">
  </DimensionUsage>
  <DimensionUsage source="Time" name="Time" visible="true" foreignKey="PK_Sales" highCardinality="false">
  </DimensionUsage>
  <Measure name="Qty Penjualan" column="Qty" datatype="Numeric" aggregator="sum" visible="true">
  </Measure>
  <Measure name="Harga Jual Sebelum Diskon" column="harga_sebelum_diskon" aggregator="sum" visible="true">
  </Measure>
  <Measure name="Total Harga" column="Total_Harga" datatype="Numeric" aggregator="sum" visible="true">
  </Measure>
</Cube>
</Schema>

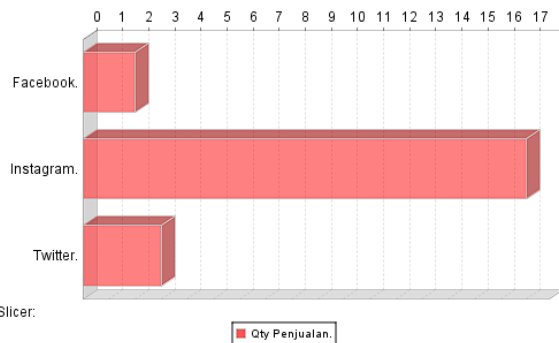
```

OLAP Cube Schema :



	Measures
Sosial Media	Qty Penjualan
Facebook	2
Instagram	17
Twitter	3

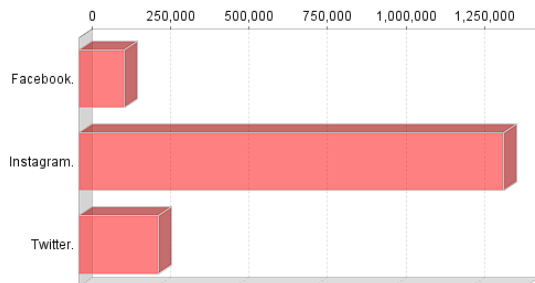
Slicer:





Measures	
Sosial Media	Total Harga
Facebook	145,440
Instagram	1,352,052
Twitter	252,977

Slicer:



Slicer:

Total Harga.

Illustration of each output

#	PK_Cabang	cabang_id	nama_cabang	kota_id	nama_kota
1	1	1	Gaikindo	1	Jakarta
2	2	2	Motorizento	2	Surabaya
3	3	3	Raikindo	1	Jakarta

#	customer_id	nama
1	1	Lian
2	2	Evan
3	3	Sarah
4	4	Andi
5	5	Diana
6	6	Budi
7	7	Siti
8	8	Rizal

#	karyawan_id	nama_karyawan	cabang_id	nama_belakang	jabatan	nama_cabang	Krywn_Full
1	1	Roy	1	Pramudya	Sales Manager	Gaikindo	Roy Pramudya
2	2	Cello	2	Wijaya	Sales Executive	Motorizento	Cello Wijaya
3	3	Doyok	1	Santoso	Sales Representative	Gaikindo	Doyok Santoso

#	PK_mobil	product_id	kategori_id	harga	qty	nama_produk	jenis
1	1	1	1	80800.0	20	BMW M3	Sedan
2	2	2	2	89300.0	20	BMW X5	SUV
3	3	3	3	108514.0	20	BMW 4 Series	Coupe

#	PK_Sales	product_id	karyawan_id	customer_id	promo_id	media_id	tanggal_penjualan	jumlah_penjualan	jumlah_harga
1	1	1	1	1	1	2	2023/12/11 00:00:00.000	2	161600.0
2	2	2	2	2	1	2	2023/12/11 00:00:00.000	3	267900.0
3	3	3	3	3	2	2	2023/12/12 00:00:00.000	1	108514.0
4	4	2	2	4	1	3	2023/12/12 00:00:00.000	2	178600.0
5	5	1	1	5	2	2	2023/12/13 00:00:00.000	1	80800.0
6	6	1	2	6	1	1	2023/12/13 00:00:00.000	2	161600.0
7	7	3	3	7	2	3	2023/12/13 00:00:00.000	1	108514.0
8	8	1	3	8	2	2	2023/12/13 00:00:00.000	1	80800.0
9	9	1	3	1	2	2	2023/12/15 00:00:00.000	4	323200.0
10	10	3	1	5	2	2	2023/12/15 00:00:00.000	5	542570.0

#	promo_id	nama_promo	persen_diskon	PK_promo
1	1	Promo A	10.0	1
2	2	Promo B	15.0	2

#	media_id	nama_media
1	1	Facebook
2	2	Instagram
3	3	Twitter

#	PK_Sales	PK_Karyawan	PK_Cabang	PK_Mobil	PK_Customer	PK_Soamed	Qty	harga_sebelum_diskon	PK_Promo	Total_Harga
1	1	1	1	1	1	2	2	161600.0	1	145440
2	2	2	2	2	2	2	3	267900.0	1	241110
3	3	3	1	3	3	2	1	108514.0	2	92237
4	4	2	2	2	4	3	2	178600.0	1	160740
5	5	1	1	1	5	2	1	80800.0	2	68680
6	6	2	2	1	6	1	2	161600.0	1	145440
7	7	3	1	3	7	3	1	108514.0	2	92237
8	8	3	1	1	8	2	1	80800.0	2	68680
9	9	3	1	1	1	2	4	323200.0	2	274720
10	10	1	1	3	5	2	5	542570.0	2	461185

ETL Program :

