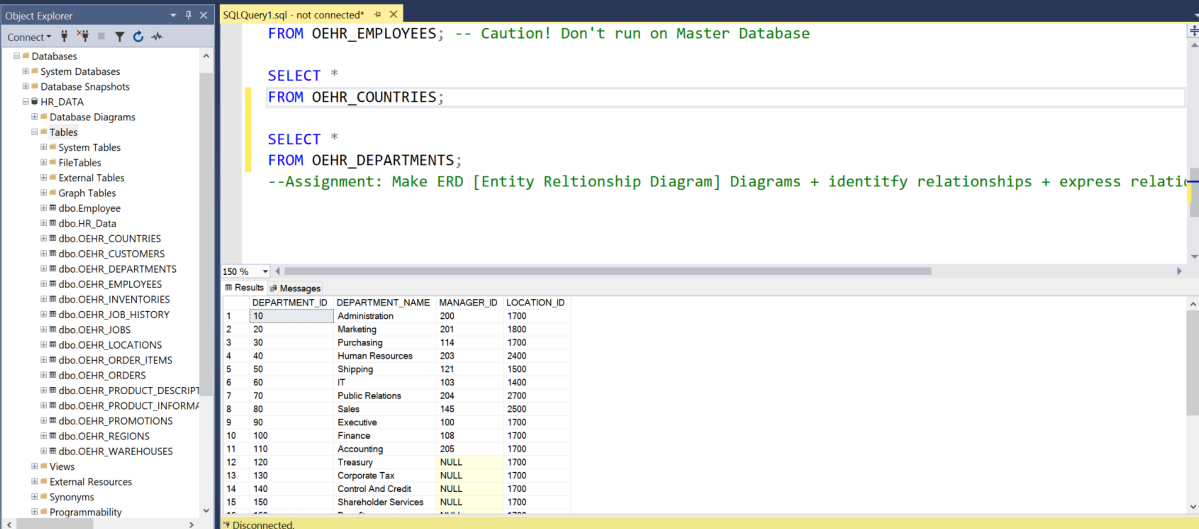


# Assignment 1 - DMV

## Entity Relationship Diagram / Data Export in SQL Server

**By: Shayan Anwar 27027**

### Data Load



The screenshot displays the SQL Server Enterprise Manager interface. On the left, the Object Explorer shows the database structure, including the 'HR\_DATA' database and its tables. The central SQL Query window contains the following SQL code:

```
FROM OEHR_EMPLOYEES; -- Caution! Don't run on Master Database

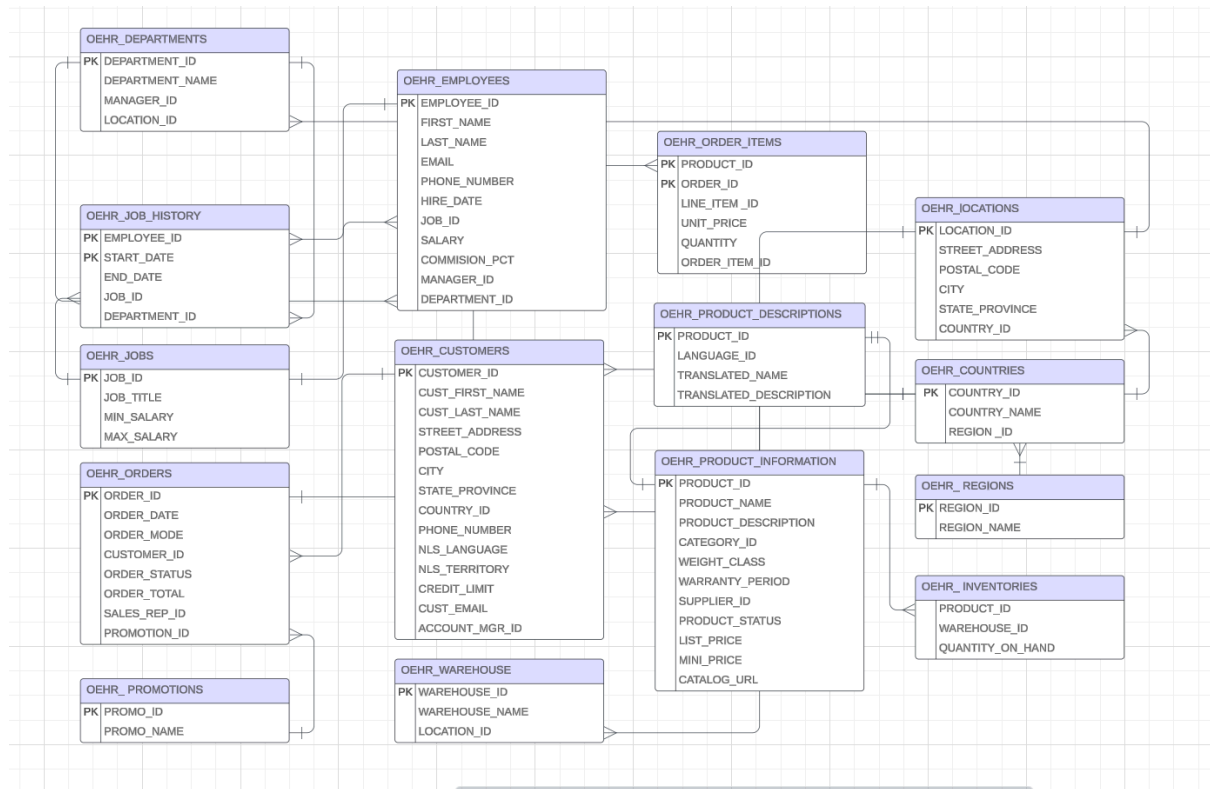
SELECT *
FROM OEHR_COUNTRIES;

SELECT *
FROM OEHR_DEPARTMENTS;
--Assignment: Make ERD [Entity Relationship Diagram] Diagrams + identify relationships + express relationships
```

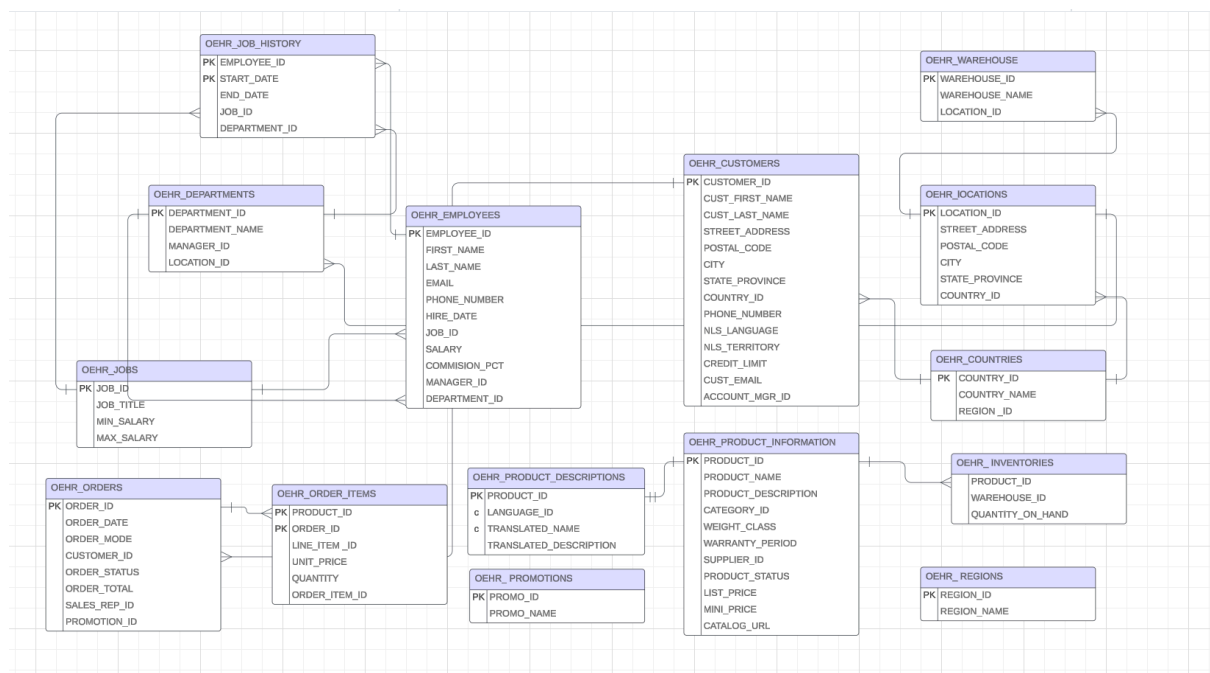
The Results window at the bottom shows the output of the query, displaying a table with columns: DEPARTMENT\_ID, DEPARTMENT\_NAME, MANAGER\_ID, and LOCATION\_ID. The data is as follows:

DEPARTMENT_ID	DEPARTMENT_NAME	MANAGER_ID	LOCATION_ID
10	Administration	200	1700
20	Marketing	201	1800
30	Purchasing	114	1700
40	Human Resources	203	2400
50	Shipping	121	1500
60	IT	103	1600
70	Public Relations	204	2700
80	Sales	145	2500
90	Executive	100	1700
100	Finance	108	1700
110	Accounting	205	1700
120	Treasury	NULL	1700
130	Corporate Tax	NULL	1700
140	Control And Credit	NULL	1700
150	Shareholder Services	NULL	1700

# ER Diagram



[https://lucid.app/lucidchart/1f87644d-91a5-4002-a1bf-20429bff2989/edit?viewport\\_loc=-1656%2C-260%2C2338%2C1299%2C0\\_0&invitationId=inv\\_f76406eb-989f-4eb6-bb10-40ba8be655b5](https://lucid.app/lucidchart/1f87644d-91a5-4002-a1bf-20429bff2989/edit?viewport_loc=-1656%2C-260%2C2338%2C1299%2C0_0&invitationId=inv_f76406eb-989f-4eb6-bb10-40ba8be655b5)



With just primary keys

[https://lucid.app/lucidchart/2d086f2b-c693-46d2-acfe-b9de128c49f0/edit?beaconFlowId=4CE4A798BDD0362D&invitationId=inv\\_941cdf9f-d12e-4f8c-ad41-98c873411414&page=0\\_0](https://lucid.app/lucidchart/2d086f2b-c693-46d2-acfe-b9de128c49f0/edit?beaconFlowId=4CE4A798BDD0362D&invitationId=inv_941cdf9f-d12e-4f8c-ad41-98c873411414&page=0_0)

## 1. OEHR\_JOB\_HISTORY:

- **Primary Key:** `EMPLOYEE\_ID`, `START\_DATE`.
- **Foreign Keys:** `JOB\_ID`, `DEPARTMENT\_ID` can be foreign keys for `OEHR\_JOBS` and `OEHR\_DEPARTMENTS`.

## 2. OEHR\_EMPLOYEES:

- **Primary Key:** `EMPLOYEE\_ID`.
- **Foreign Keys:** `JOB\_ID`, `MANAGER\_ID`, `DEPARTMENT\_ID` can be foreign keys for `OEHR\_JOBS`, and `OEHR\_DEPARTMENTS`.

## 3. OEHR\_DEPARTMENTS:

- **Primary Key:** `DEPARTMENT\_ID`.
- **Foreign Keys:** `MANAGER\_ID` and `LOCATION\_ID` can help in linking with `OEHR\_EMPLOYEES` and `OEHR\_LOCATIONS`.

## 4. OEHR\_JOBS:

- **Primary Key:** `JOB\_ID` can be linked with tables having JOB\_ID such as `OEHR\_EMPLOYEE`.

## 5. OEHR\_ORDERS:

- **Primary Key:** `ORDER\_ID`.
- **Foreign Keys:** `CUSTOMER\_ID` and `PROMOTION\_ID` can help bridge up with `OEHR\_CUSTOMERS` and `OEHR\_PROMOTIONS`, respectively.

## 6. OEHR\_ORDER\_ITEMS:

- **Primary Key:** `ORDER\_ID`, `ORDER\_ITEM\_ID`.
- **Foreign Key:** `PRODUCT\_ID` creates a many-to-one relationship between `OEHR\_ORDER\_ITEMS` and `OEHR\_PRODUCT\_INFORMATION`.

## 7. OEHR\_LOCATIONS:

- **Primary Key:** `LOCATION\_ID`.
- **Foreign Keys:** `COUNTRY\_ID` helps in creating a many to 1 relation between the `OEHR\_LOCATIONS` and `OEHR\_COUNTRIES`.

## 8. OEHR\_COUNTRIES:

- **Primary Key:** `COUNTRY\_ID`.
- **Foreign Keys:** `REGION\_ID` creates a many to one relation with `OEHR\_REGIONS`.

## 9. OEHR\_REGIONS:

- **Primary Key:** `REGION\_ID`

## 10. OEHR\_CUSTOMERS:

- **Primary Key:** `CUSTOMER\_ID`.
- **Foreign Keys:** `COUNTRY\_ID` reference `OEHR\_COUNTRIES`

## 11. OEHR\_WAREHOUSE:

- **Primary Key:** `WAREHOUSE\_ID`.
- **Foreign Key:** `LOCATION\_ID` helps connect with `OEHR\_LOCATIONS` in a many to one relation.

## 12. OEHR\_PRODUCT\_INFORMATION:

- **Primary Key:** `PRODUCT\_ID`.
- **Foreign Keys:** Not Available. 'PRODUCT ID' itself is used as a foreign key with respect to other tables.

## 13. OEHR\_INVENTORIES:

- **Primary Key:** No Primary key in here by we can make composite by  $\rightarrow$  `PRODUCT\_ID + WAREHOUSE\_ID`.
- **Foreign Keys:** `PRODUCT\_ID` and `WAREHOUSE\_ID` can help connect the table with `OEHR\_PRODUCT\_INFORMATION` and `OEHR\_WAREHOUSE`, respectively.

## 14. OEHR\_PROMOTIONS:

- **Primary Key:** `PROMO\_ID`

## 15. OEHR\_PRODUCT\_DESCRIPTIONS:

- **Primary Key:** `PRODUCT\_ID`
- **Foreign Key:** `PRODUCT\_ID` can connect with other tables such as `OEHR\_PRODUCT\_INFORMATION`. The relationship between these tables is 1 to 1.