

부록-SQL Developer를 이용한 Reverse Engineering

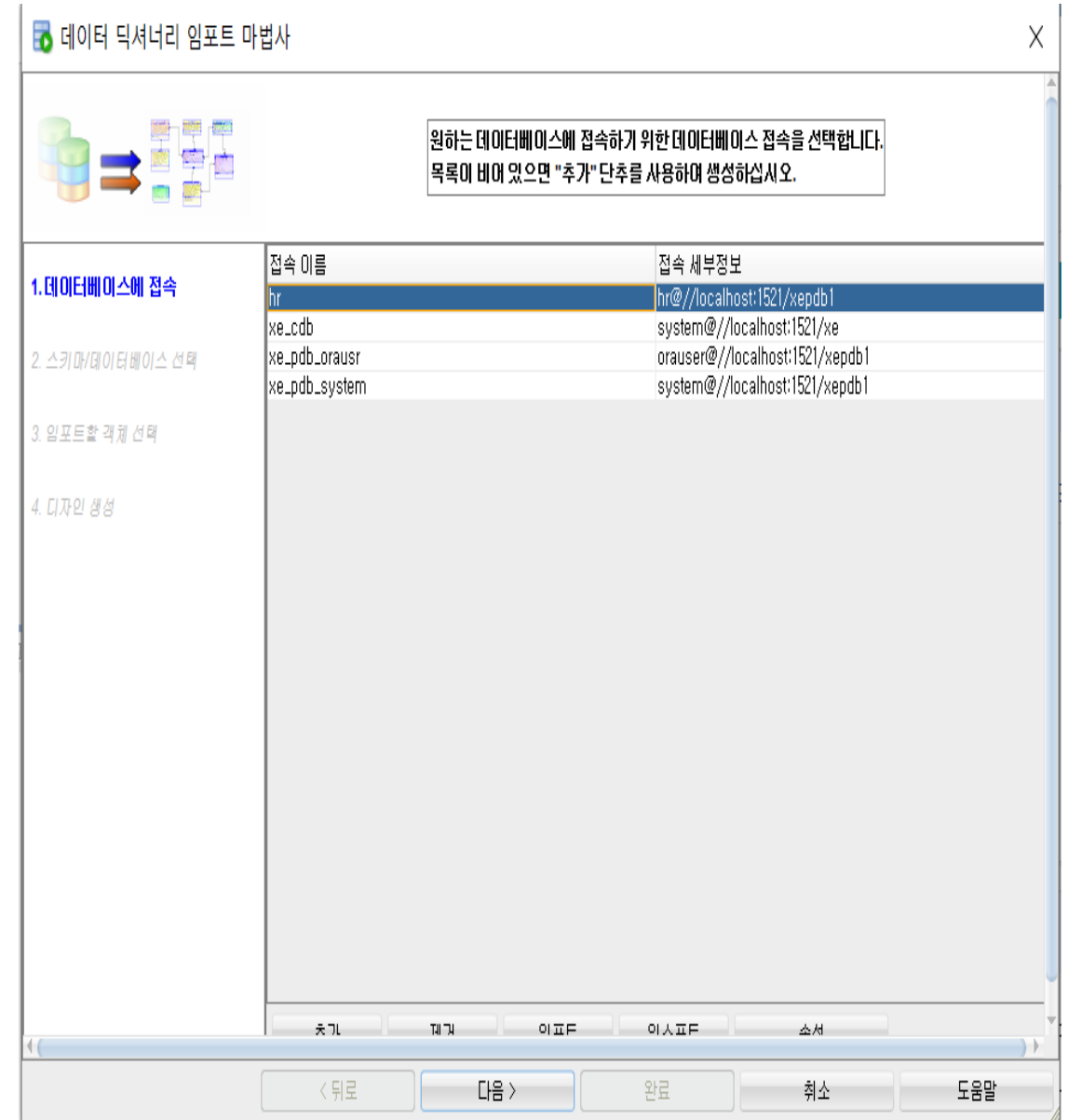
홍형경

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1. ERD 생성

- SQL Developer 실행
- 파일 – Data Modeler – импорт – Data Dictionary 선택
- ERD를 만들 데이터베이스 접속 – HR 선택
→ 다음 버튼 클릭

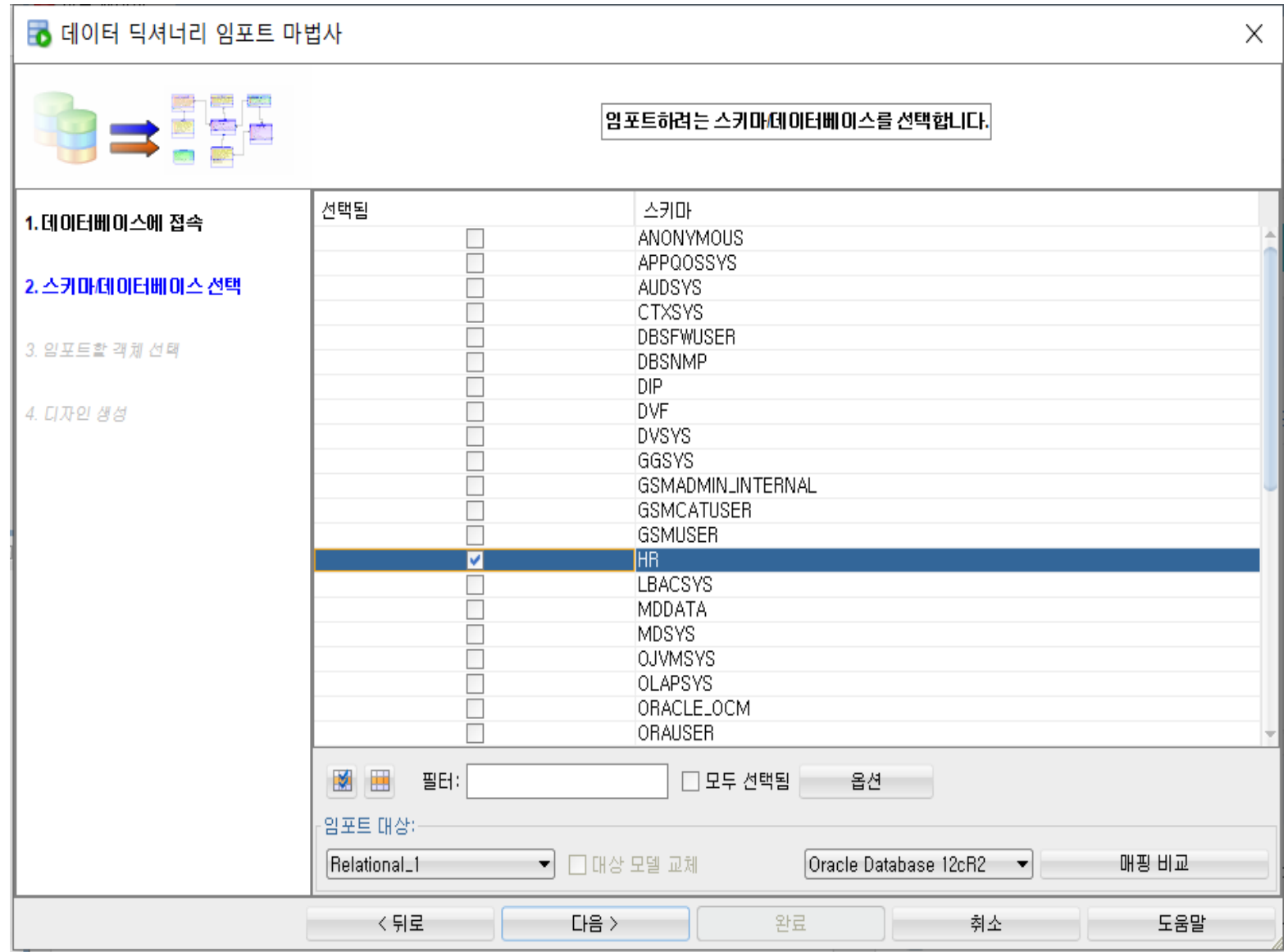


1. ERD 생성

· 스키마 데이터베이스 선택

· HR 스키마 선택

→ 다음 버튼 클릭



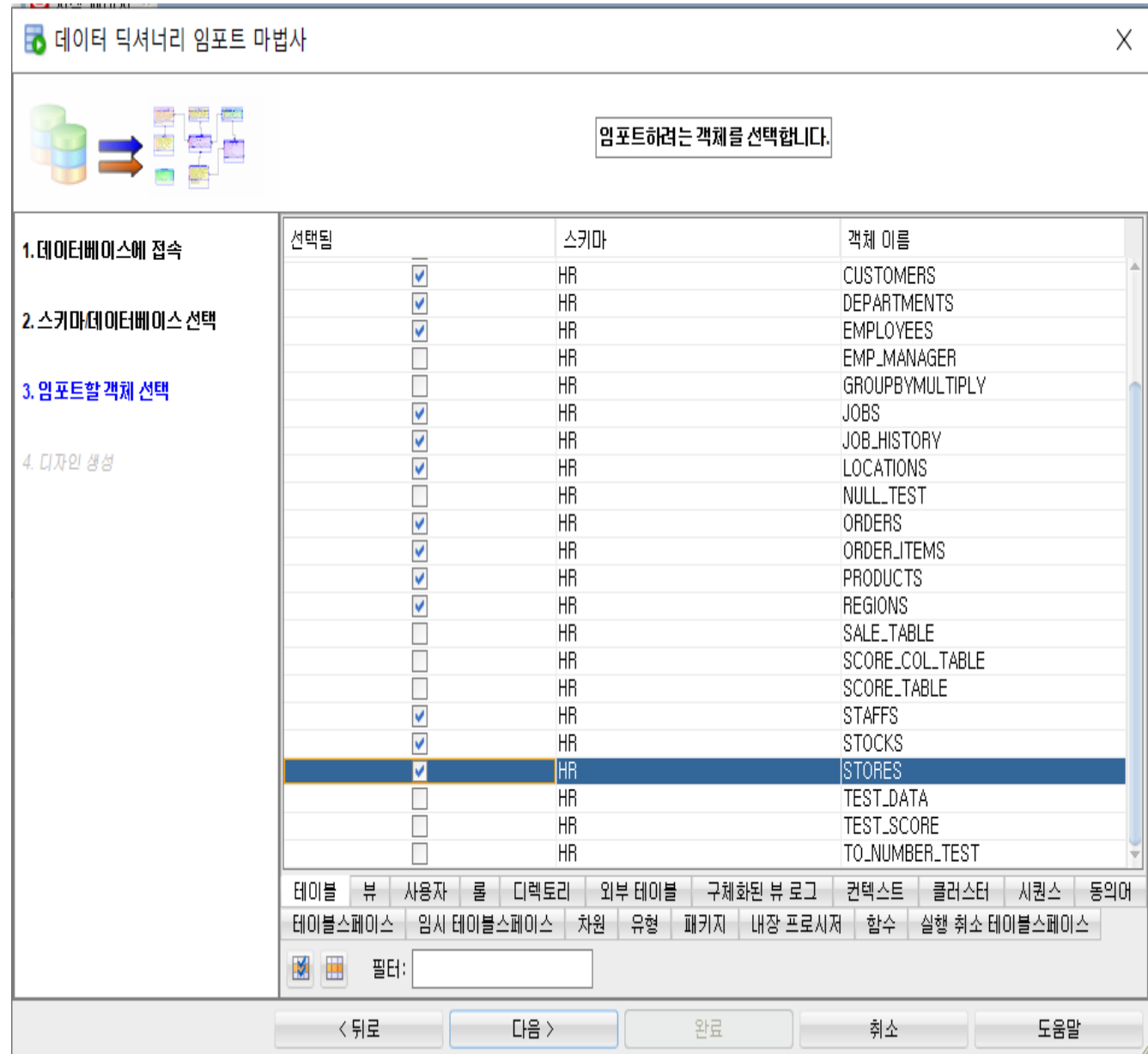
1. ERD 생성

· 임포트할 객체 선택

· employees, departments, locations, countries, regions, jobs, job_history 선택

· brands, customers, orders, order_items, products, staffs, stocks, stores 선택

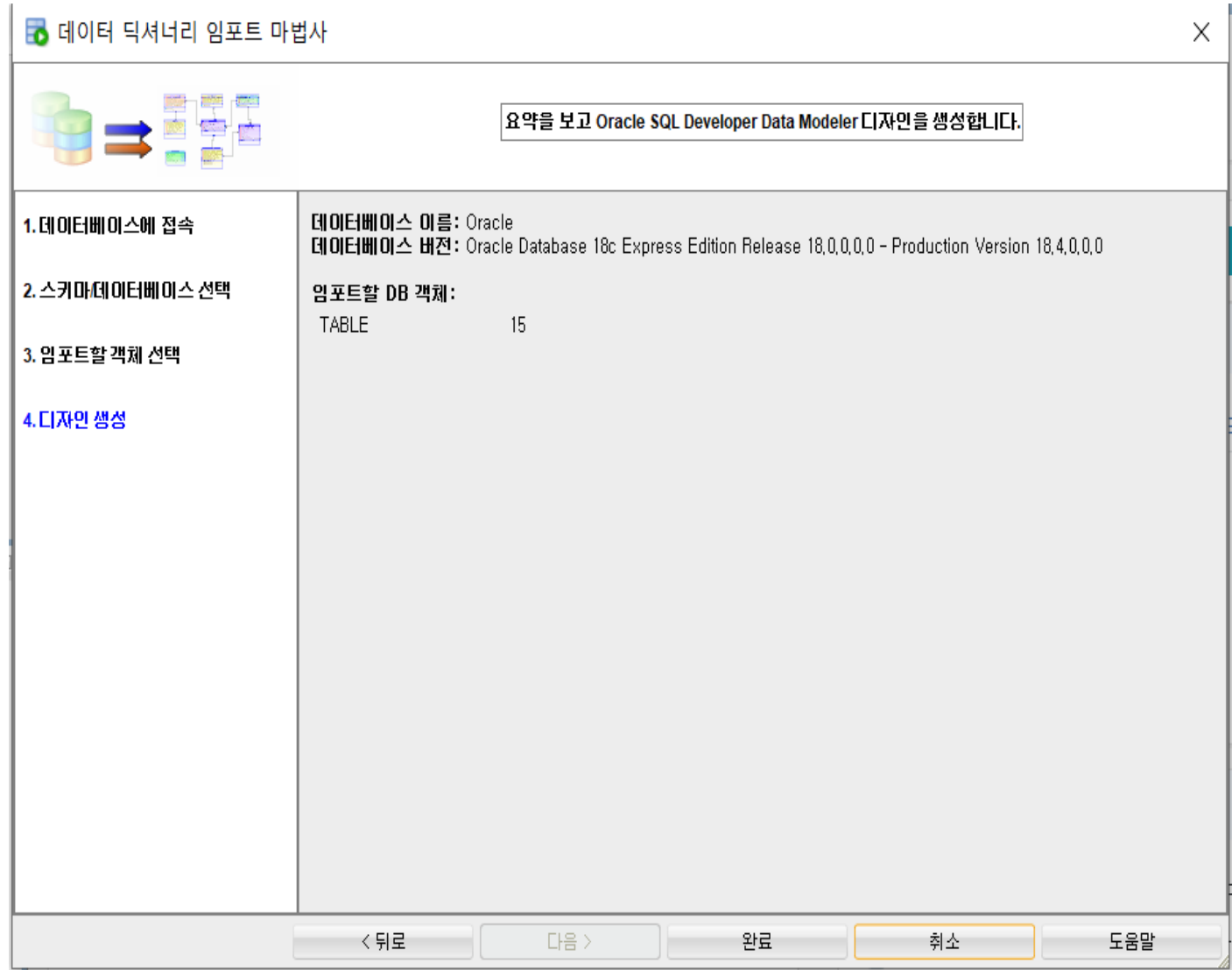
→ 다음 버튼 클릭



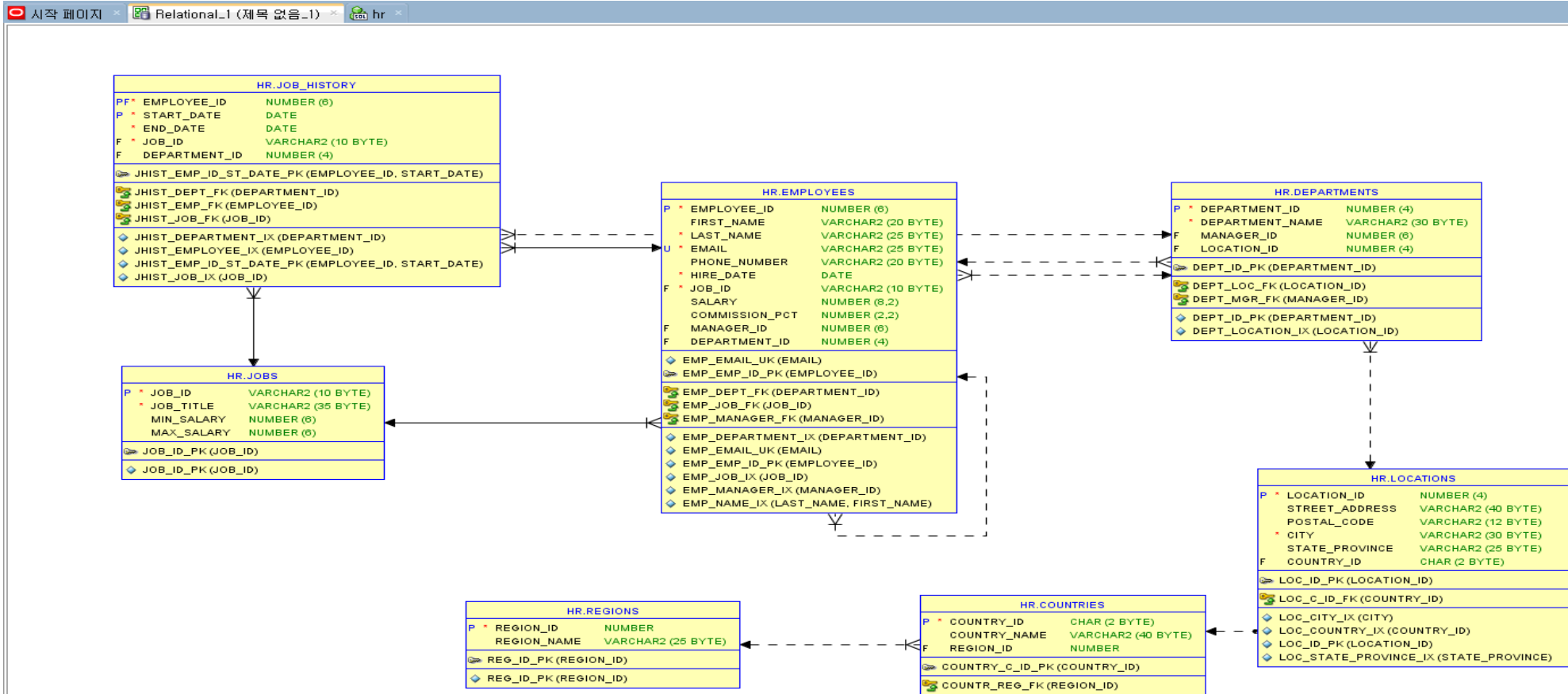
1. ERD 생성

· 디자인 생성

· 하단의 완료 버튼 클릭



1. ERD 생성



1. ERD 생성

| HR.BRANDS | | |
|-----------|----------------------|---------------------|
| P * | BRAND_ID | NUMBER |
| | BRAND_NAME | VARCHAR2 (255 BYTE) |
| | BRANDS_PK (BRAND_ID) | |
| | BRANDS_PK (BRAND_ID) | |

| HR.CATEGORIES | | |
|---------------|---------------------------|---------------------|
| P * | CATEGORY_ID | NUMBER |
| | CATEGORY_NAME | VARCHAR2 (255 BYTE) |
| | CATEGORY_PK (CATEGORY_ID) | |
| | CATEGORY_PK (CATEGORY_ID) | |

| HR.CUSTOMERS | | |
|--------------|----------------------------|---------------------|
| P * | CUSTOMER_ID | NUMBER |
| | FIRST_NAME | VARCHAR2 (255 BYTE) |
| | LAST_NAME | VARCHAR2 (255 BYTE) |
| | PHONE | VARCHAR2 (25 BYTE) |
| | EMAIL | VARCHAR2 (255 BYTE) |
| | STREET | VARCHAR2 (255 BYTE) |
| | CITY | VARCHAR2 (50 BYTE) |
| | STATE | VARCHAR2 (25 BYTE) |
| | ZIP_CODE | VARCHAR2 (5 BYTE) |
| | CUSTOMERS_PK (CUSTOMER_ID) | |
| | CUSTOMERS_PK (CUSTOMER_ID) | |

| HR.ORDERS | | |
|-----------|----------------------|--------|
| P * | ORDER_ID | NUMBER |
| | CUSTOMER_ID | NUMBER |
| | ORDER_STATUS | NUMBER |
| | ORDER_DATE | DATE |
| | REQUIRED_DATE | DATE |
| | SHIPPED_DATE | DATE |
| | STORE_ID | NUMBER |
| | STAFF_ID | NUMBER |
| | ORDERS_PK (ORDER_ID) | |
| | ORDERS_PK (ORDER_ID) | |

| HR.ORDER_ITEMS | | |
|----------------|------------------------------------|--------|
| P * | ORDER_ID | NUMBER |
| P * | ITEM_ID | NUMBER |
| | PRODUCT_ID | NUMBER |
| | QUANTITY | NUMBER |
| | LIST_PRICE | NUMBER |
| | DISCOUNT | NUMBER |
| | ORDER_ITEMS_PK (ORDER_ID, ITEM_ID) | |
| | ORDER_ITEMS_PK (ORDER_ID, ITEM_ID) | |

| HR.PRODUCTS | | |
|-------------|--------------------------|---------------------|
| P * | PRODUCT_ID | NUMBER |
| | PRODUCT_NAME | VARCHAR2 (255 BYTE) |
| | BRAND_ID | NUMBER |
| | CATEGORY_ID | NUMBER |
| | MODEL_YEAR | NUMBER |
| | LIST_PRICE | NUMBER |
| | PRODUCTS_PK (PRODUCT_ID) | |
| | PRODUCTS_PK (PRODUCT_ID) | |

| HR.STAFFS | | |
|-----------|----------------------|---------------------|
| P * | STAFF_ID | NUMBER |
| | FIRST_NAME | VARCHAR2 (50 BYTE) |
| | LAST_NAME | VARCHAR2 (50 BYTE) |
| | EMAIL | VARCHAR2 (255 BYTE) |
| | PHONE | VARCHAR2 (25 BYTE) |
| | ACTIVE | NUMBER |
| | STORE_ID | NUMBER |
| | MANAGER_ID | NUMBER |
| | STAFFS_PK (STAFF_ID) | |
| | STAFFS_PK (STAFF_ID) | |

| HR.STOCKS | | |
|-----------|----------------------------------|--------|
| P * | STORE_ID | NUMBER |
| P * | PRODUCT_ID | NUMBER |
| | QUANTITY | NUMBER |
| | STOCKS_PK (STORE_ID, PRODUCT_ID) | |
| | STOCKS_PK (STORE_ID, PRODUCT_ID) | |

| HR.STORES | | |
|-----------|----------------------|---------------------|
| P * | STORE_ID | NUMBER |
| | STORE_NAME | VARCHAR2 (255 BYTE) |
| | PHONE | VARCHAR2 (25 BYTE) |
| | EMAIL | VARCHAR2 (255 BYTE) |
| | STREET | VARCHAR2 (255 BYTE) |
| | CITY | VARCHAR2 (255 BYTE) |
| | STATE | VARCHAR2 (10 BYTE) |
| | ZIP_CODE | VARCHAR2 (5 BYTE) |
| | STORES_PK (STORE_ID) | |
| | STORES_PK (STORE_ID) | |

1. ERD 생성

- employees, departments 등의 테이블들은 관계선이 보임
 - orders, order_items 등의 테이블은 관계선이 없음
- ➔ 테이블간 관계는 외래 키 (Foreign Key)를 생성해야 Reverse Engineering 시 관계선이 표시되나, 이들 테이블에는 FK 생성 안했기 때문