

## PROJECT DELIVARABLE D2

### a. ER-DIAGRAM

APPD4YC.METADATA_TBL		
CNL_TABLE_NAME		varchar2(255)
CNL_COLUMN_NAME		varchar2(255)
CNL_DATA_TYPE		varchar2(255)
DB1_TABLE_NAME		varchar2(255)
DB1_COLUMN_NAME		varchar2(255)
DB1_DATA_TYPE		varchar2(255)
DB1_FUNCTION		varchar2(4000)
DB2_TABLE_NAME		varchar2(255)
DB2_COLUMN_NAME		varchar2(255)
DB2_DATA_TYPE		varchar2(255)
DB2_FUNCTION		varchar2(4000)
DB3_TABLE_NAME		varchar2(255)
DB3_COLUMN_NAME		varchar2(255)
DB3_DATA_TYPE		varchar2(255)
DB3_FUNCTION		varchar2(4000)

### b. CREATE TABLE COMMAND FOR METADATA LAYER

```
CREATE TABLE APPD4YC.METADATA_TBL(  
    CNL_TABLE_NAME VARCHAR(255),  
    CNL_COLUMN_NAME VARCHAR(255),  
    CNL_DATA_TYPE VARCHAR(255),  
    DB1_TABLE_NAME VARCHAR(255),  
    DB1_COLUMN_NAME VARCHAR(255),  
    DB1_DATA_TYPE VARCHAR(255),  
    DB1_FUNCTION VARCHAR2(4000),  
    DB2_TABLE_NAME VARCHAR(255),  
    DB2_COLUMN_NAME VARCHAR(255),  
    DB2_DATA_TYPE VARCHAR(255),  
    DB2_FUNCTION VARCHAR2(4000),  
    DB3_TABLE_NAME VARCHAR(255),  
    DB3_COLUMN_NAME VARCHAR(255),  
    DB3_DATA_TYPE VARCHAR(255),  
    DB3_FUNCTION VARCHAR2(4000)
```

);

## # INSERT STATEMENTS

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('BOOKS', 'ID', 'NUMBER',
'BOOKS_TBL', 'ID', 'NUMBER', null, null, null, null, null, null, null, null, null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('BOOKS', 'ISBN', 'NUMBER',
'BOOKS_TBL', 'ISBN', 'NUMBER', null, null, null, null, null, null, null, null, null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('BOOKS', 'PRODUCT_ID',
'NUMBER', 'BOOKS_TBL', 'PRODUCT_ID', 'NUMBER', null, null, null, null, null, null, null, null, null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('BOOKS', 'TITLE', 'VARCHAR2',
'BOOKS_TBL', 'TITLE', 'VARCHAR2', null, null, null, null, null, null, null, null, null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('BOOKS', 'AUTHORS',
'VARCHAR2', 'BOOKS_TBL', 'AUTHORS', 'VARCHAR2', null, null, null, null, null, null, null, null, null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('BOOKS', 'PRICE', 'NUMBER',
'BOOKS_TBL', 'PRICE', 'NUMBER', null, null, null, null, null, null, null, null, null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('BOOKS', 'CATEGORY_ID',
'NUMBER', 'BOOKS_TBL', 'CATEGORY_ID', 'NUMBER', null, null, null, null, null, null, null, null, null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('BOOKS', 'DESCRIPTION',
'VARCHAR2', 'BOOKS_TBL', 'DESCRIPTION', 'VARCHAR2', null, null, null, null, null, null, null, null, null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('CATEGORY', 'CATEGORY_ID',
'NUMBER', 'CATEGORY_TAB', 'CATEGORY_ID', 'NUMBER', null, null, null, null, null, null, null,
null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('CATEGORY', 'CATEGORY',
'VARCHAR2', 'CATEGORY_TAB', 'CATEGORY', 'VARCHAR2', null, null, null, null, null, null, null,
null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('CUSTOMERS', 'CUST_ID',
'NUMBER', 'CUSTOMERS_TBL', 'CUST_ID', 'NUMBER', null, 'CUSTOMER', 'CUSTOMER_ID', 'NUMBER',
null, 'CUST', 'CUST_ID', 'NUMBER', null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('CUSTOMERS', 'CUST_NAME',
'VARCHAR2', 'CUSTOMERS_TBL', 'CUST_NAME', 'VARCHAR2', null, 'CUSTOMER', 'CUSTOMER_NAME',
'VARCHAR2', null, 'CUST', 'CUST_NAME', 'VARCHAR2', null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('CUSTOMERS', 'ADDRESS',
'VARCHAR2', 'CUSTOMERS_TBL', 'ADDRESS', 'VARCHAR2', null, 'CUSTOMER', 'ADDRESS', 'VARCHAR2',
null, 'CUST', 'ADDR', 'VARCHAR2', null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('CUSTOMERS', 'PH_NO',
'NUMBER', 'CUSTOMERS_TBL', 'PH_NO', 'NUMBER', null, 'CUSTOMER', 'PHONE', 'NUMBER', null,
'CUST', 'PH_NUMBER', 'NUMBER', null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('GENRE', 'GENRE_ID', 'NUMBER',
'GENRE_TAB', 'GENRE_ID', 'NUMBER', null, null, null, null, null, null, null, null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
```

```
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('GENRE', 'GENRE', 'VARCHAR2',  
'GENRE_TBL', 'GENRE', 'VARCHAR2', null, null, null, null, null, null, null, null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,  
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,  
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,  
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('MUSIC_CD', 'ID', 'NUMBER',  
'MUSIC_CD_TBL', 'ID', 'NUMBER', null, null, null, null, null, null, null, null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,  
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,  
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,  
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('MUSIC_CD', 'PRODUCT_ID',  
'NUMBER', 'MUSIC_CD_TBL', 'PRODUCT_ID', 'NUMBER', null, null, null, null, null, null, null, null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,  
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,  
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,  
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('MUSIC_CD', 'TITLE',  
'VARCHAR2', 'MUSIC_CD_TBL', 'TITLE', 'VARCHAR2', null, null, null, null, null, null, null, null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,  
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,  
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,  
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('MUSIC_CD', 'ARTISTS',  
'VARCHAR2', 'MUSIC_CD_TBL', 'ARTISTS', 'VARCHAR2', null, null, null, null, null, null, null, null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,  
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,  
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,  
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('MUSIC_CD',  
'RECORD_COMPANY', 'VARCHAR2', 'MUSIC_CD_TBL', 'RECORD_COMPANY', 'VARCHAR2', null, null,  
null, null, null, null, null, null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,  
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,  
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,  
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('MUSIC_CD', 'PRICE', 'NUMBER',  
'MUSIC_CD_TBL', 'PRICE', 'NUMBER', null, null, null, null, null, null, null, null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,  
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,  
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,  
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('MUSIC_CD', 'GENRE_ID',  
'NUMBER', 'MUSIC_CD_TBL', 'GENRE_ID', 'NUMBER', null, null, null, null, null, null, null, null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,  
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,  
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,  
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('MUSIC_CD', 'DESCRIPTION',
```

'VARCHAR2', 'MUSIC\_CD\_TBL', 'DESCRIPTION', 'VARCHAR2', null, null, null, null, null, null, null, null);

INSERT INTO METADATA\_TBL (CNL\_TABLE\_NAME, CNL\_COLUMN\_NAME, CNL\_DATA\_TYPE, DB1\_TABLE\_NAME, DB1\_COLUMN\_NAME, DB1\_DATA\_TYPE, DB1\_FUNCTION, DB2\_TABLE\_NAME, DB2\_COLUMN\_NAME, DB2\_DATA\_TYPE, DB2\_FUNCTION, DB3\_TABLE\_NAME, DB3\_COLUMN\_NAME, DB3\_DATA\_TYPE, DB3\_FUNCTION) VALUES ('PRODUCT', 'PRODUCT\_ID', 'NUMBER', 'PRODUCT\_TAB', 'PRODUCT\_ID', 'NUMBER', null, 'PRODUCT', 'PRODUCT\_ID', 'NUMBER', null, 'PRD', 'PRD\_ID', 'NUMBER', null);

INSERT INTO METADATA\_TBL (CNL\_TABLE\_NAME, CNL\_COLUMN\_NAME, CNL\_DATA\_TYPE, DB1\_TABLE\_NAME, DB1\_COLUMN\_NAME, DB1\_DATA\_TYPE, DB1\_FUNCTION, DB2\_TABLE\_NAME, DB2\_COLUMN\_NAME, DB2\_DATA\_TYPE, DB2\_FUNCTION, DB3\_TABLE\_NAME, DB3\_COLUMN\_NAME, DB3\_DATA\_TYPE, DB3\_FUNCTION) VALUES ('PRODUCT', 'PRODUCT\_TYPE', 'VARCHAR2', 'PRODUCT\_TAB', 'PRODUCT\_TYPE', 'VARCHAR2', null, 'PRODUCT', 'PRODUCT\_TYPE', 'VARCHAR2', null, 'PRD', 'PRD\_TYPE', 'VARCHAR2', null);

INSERT INTO METADATA\_TBL (CNL\_TABLE\_NAME, CNL\_COLUMN\_NAME, CNL\_DATA\_TYPE, DB1\_TABLE\_NAME, DB1\_COLUMN\_NAME, DB1\_DATA\_TYPE, DB1\_FUNCTION, DB2\_TABLE\_NAME, DB2\_COLUMN\_NAME, DB2\_DATA\_TYPE, DB2\_FUNCTION, DB3\_TABLE\_NAME, DB3\_COLUMN\_NAME, DB3\_DATA\_TYPE, DB3\_FUNCTION) VALUES ('PRODUCT', 'TITLE', 'VARCHAR2', 'PRODUCT\_TAB', 'TITLE', 'VARCHAR2', null, 'PRODUCT', 'PRODUCT\_NAME', 'VARCHAR2', null, 'PRD', 'PRD\_NAME', 'VARCHAR2', null);

INSERT INTO METADATA\_TBL (CNL\_TABLE\_NAME, CNL\_COLUMN\_NAME, CNL\_DATA\_TYPE, DB1\_TABLE\_NAME, DB1\_COLUMN\_NAME, DB1\_DATA\_TYPE, DB1\_FUNCTION, DB2\_TABLE\_NAME, DB2\_COLUMN\_NAME, DB2\_DATA\_TYPE, DB2\_FUNCTION, DB3\_TABLE\_NAME, DB3\_COLUMN\_NAME, DB3\_DATA\_TYPE, DB3\_FUNCTION) VALUES ('PRODUCT', 'STOCK\_COUNT', 'NUMBER', 'PRODUCT\_TAB', 'STOCK\_COUNT', 'NUMBER', null, 'PRODUCT', 'PRODUCT\_QUANTITY', 'NUMBER', null, 'PRD', 'PRD\_QUANTITY', 'NUMBER', null);

INSERT INTO METADATA\_TBL (CNL\_TABLE\_NAME, CNL\_COLUMN\_NAME, CNL\_DATA\_TYPE, DB1\_TABLE\_NAME, DB1\_COLUMN\_NAME, DB1\_DATA\_TYPE, DB1\_FUNCTION, DB2\_TABLE\_NAME, DB2\_COLUMN\_NAME, DB2\_DATA\_TYPE, DB2\_FUNCTION, DB3\_TABLE\_NAME, DB3\_COLUMN\_NAME, DB3\_DATA\_TYPE, DB3\_FUNCTION) VALUES ('PURCHASE', 'PURCHASE\_ID', 'NUMBER', 'PURCHASES\_TBL', 'PURCHASE\_ID', 'NUMBER', null, 'ORDERS', 'ORDER\_ID', 'NUMBER', null, 'ORDERS', 'ORDER\_ID', 'NUMBER', null);

INSERT INTO METADATA\_TBL (CNL\_TABLE\_NAME, CNL\_COLUMN\_NAME, CNL\_DATA\_TYPE, DB1\_TABLE\_NAME, DB1\_COLUMN\_NAME, DB1\_DATA\_TYPE, DB1\_FUNCTION, DB2\_TABLE\_NAME, DB2\_COLUMN\_NAME, DB2\_DATA\_TYPE, DB2\_FUNCTION, DB3\_TABLE\_NAME, DB3\_COLUMN\_NAME, DB3\_DATA\_TYPE, DB3\_FUNCTION) VALUES ('PURCHASE', 'PRODUCT\_ID', 'NUMBER', 'PURCHASES\_TBL', 'PRODUCT\_ID', 'NUMBER', null, 'LINE\_ITEM', 'PRODUCT\_ID', 'NUMBER', null, 'SALES', 'PRD\_ID', 'NUMBER', null);

INSERT INTO METADATA\_TBL (CNL\_TABLE\_NAME, CNL\_COLUMN\_NAME, CNL\_DATA\_TYPE, DB1\_TABLE\_NAME, DB1\_COLUMN\_NAME, DB1\_DATA\_TYPE, DB1\_FUNCTION, DB2\_TABLE\_NAME, DB2\_COLUMN\_NAME, DB2\_DATA\_TYPE, DB2\_FUNCTION, DB3\_TABLE\_NAME, DB3\_COLUMN\_NAME, DB3\_DATA\_TYPE, DB3\_FUNCTION) VALUES ('PURCHASE', 'CUST\_ID', 'NUMBER', 'PURCHASES\_TBL', 'CUST\_ID', 'NUMBER', null, 'ORDERS', 'CUSTOMER\_ID', 'NUMBER', null, 'ORDERS', 'CUST\_ID', 'NUMBER', null);

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('PURCHASE', 'QUANTITY',
'NUMBER', 'PURCHASES_TBL', 'QUANTITY', 'NUMBER', null, 'LINE_ITEM', 'ITEM_QUANTITY',
'NUMBER', null, 'SALES', 'ITEM_QUANTITY', 'NUMBER', null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('PURCHASE', 'AMOUNT',
'NUMBER', 'PURCHASES_TBL', 'AMOUNT', 'NUMBER', null, 'LINE_ITEM', 'PRICE_PER_UNIT', 'FLOAT',
'to_number("PRICE_PER_UNIT")', 'SALES', 'PRICE_PER_UNIT', 'NUMBER', null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('PURCHASE', 'SALE_DATE',
'DATE', 'PURCHASES_TBL', 'SALE_DATE', 'DATE', null, 'ORDERS', 'ORDER_DATE', 'DATE', null,
'ORDERS', 'ORDER_DATE', 'DATE', null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('PRODUCT', 'DESCRIPTION',
'VARCHAR2', null, null, null, null, 'PRODUCT', 'PRODUCT_DESCRIPTION', 'VARCHAR2', null, 'PRD',
'PRD_DESCRIPTION', 'VARCHAR2', null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('CUSTOMERS', 'EMAIL',
'VARCHAR2', null, null, null, null, 'CUSTOMER', 'EMAIL', 'VARCHAR2', null, 'CUSTOMER', 'EMAIL',
'VARCHAR2', null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('PURCHASE', 'ITEM_ID',
'NUMBER', null, null, null, null, 'LINE_ITEM', 'ITEM_ID', 'NUMBER', null, 'SALES', 'SALE_ID', 'NUMBER',
null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('PURCHASE', 'ORDER_ID',
'NUMBER', null, null, null, null, 'LINE_ITEM', 'ORDER_ID', 'NUMBER', null, 'SALES', 'ORDER_ID',
'NUMBER', null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,
```

```
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,  
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('PURCHASE', 'DESCRIPTION',  
'VARCHAR2', null, null, null, null, 'LINE_ITEM', 'ITEM_DESCRIPTION', 'VARCHAR2', null, 'SALES',  
'SALE_DESCRIPTION', 'VARCHAR2', null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,  
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,  
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,  
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('PURCHASE', 'SHIPPING',  
'VARCHAR2', null, null, null, null, 'ORDERS', 'SHIPPING', 'VARCHAR2', null, 'ORDERS', 'SHIPPING',  
'VARCHAR2', null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,  
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,  
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,  
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('PURCHASE', 'SALES_TAX',  
'FLOAT', null, null, null, null, 'ORDERS', 'SALES_TAX', 'FLOAT', null, 'ORDERS', 'SALES_TAX', 'FLOAT',  
null);
```

```
INSERT INTO METADATA_TBL (CNL_TABLE_NAME, CNL_COLUMN_NAME, CNL_DATA_TYPE,  
DB1_TABLE_NAME, DB1_COLUMN_NAME, DB1_DATA_TYPE, DB1_FUNCTION, DB2_TABLE_NAME,  
DB2_COLUMN_NAME, DB2_DATA_TYPE, DB2_FUNCTION, DB3_TABLE_NAME,  
DB3_COLUMN_NAME, DB3_DATA_TYPE, DB3_FUNCTION) VALUES ('PURCHASE', 'STATUS',  
'VARCHAR2', null, null, null, null, 'ORDERS', 'ORDER_STATUS', 'VARCHAR2', null, 'ORDERS',  
'ORDER_STATUS', 'VARCHAR2', null);
```

### **C. SCREENSHOT FOR SELECT QUERY**

```
SELECT * FROM METADATA_TBL;
```

8 SELECT \* FROM APP04VC.METADATA\_TBL;

9:1 [532] DMS

Auto Commit: OFF (0/0) Cp1252 Unlimited

Log DBMS Output 1: METADATA\_TBL [42] x

Q:

#	DB1_TABLE_NAME	DB1_COLUMN_NAME	DB1_DATA_TYPE	DB1_TABLE_NAME	DB1_COLUMN_NAME	DB1_DATA_TYPE	DB2_TABLE_NAME	DB2_COLUMN_NAME	DB2_DATA_TYPE	DB2_FUNCTION	DB2_FUNCTION	DB3_TABLE_NAME	DB3_COLUMN_NAME	DB3_DATA_TYPE	DB3_FUNCTION	
1	BOOKS	ID	NUMBER	BOOKS_TBL	ID	NUMBER	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	
2	BOOKS	ISBN	NUMBER	BOOKS_TBL	ISBN	NUMBER	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	
3	BOOKS	PRODUCT_ID	NUMBER	BOOKS_TBL	PRODUCT_ID	NUMBER	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	
4	BOOKS	TITLE	VARCHAR2	BOOKS_TBL	TITLE	VARCHAR2	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	
5	BOOKS	AUTHORS	VARCHAR2	BOOKS_TBL	AUTHORS	VARCHAR2	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	
6	BOOKS	PRICE	NUMBER	BOOKS_TBL	PRICE	NUMBER	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	
7	BOOKS	CATEGORY_ID	NUMBER	BOOKS_TBL	CATEGORY_ID	NUMBER	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	
8	BOOKS	DESCRIPTION	VARCHAR2	BOOKS_TBL	DESCRIPTION	VARCHAR2	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	
9	CATEGORY	CATEGORY_ID	NUMBER	CATEGORY_TAB	CATEGORY_ID	NUMBER	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	
10	CATEGORY	CATEGORY	VARCHAR2	CATEGORY_TAB	CATEGORY	VARCHAR2	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	
11	CUSTOMERS	CUST_ID	NUMBER	CUSTOMERS_TBL	CUST_ID	NUMBER	CUSTOMER	CUSTOMER_ID	NUMBER	(null)	(null)	CUST	CUST_ID	NUMBER	(null)	
12	CUSTOMERS	CUST_NAME	VARCHAR2	CUSTOMERS_TBL	CUST_NAME	VARCHAR2	CUSTOMER	CUSTOMER_NAME	VARCHAR2	(null)	(null)	CUST	CUST_NAME	VARCHAR2	(null)	
13	CUSTOMERS	ADDRESS	VARCHAR2	CUSTOMERS_TBL	ADDRESS	VARCHAR2	CUSTOMER	ADDRESS	VARCHAR2	(null)	(null)	CUST	ADDR	VARCHAR2	(null)	
14	CUSTOMERS	PH_NO	NUMBER	CUSTOMERS_TBL	PH_NO	NUMBER	CUSTOMER	PHONE	NUMBER	(null)	(null)	CUST	PH_NUMBER	NUMBER	(null)	
15	GENRE	GENRE_ID	NUMBER	GENRE_TAB	GENRE_ID	NUMBER	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	
16	GENRE	GENRE	VARCHAR2	GENRE_TAB	GENRE	VARCHAR2	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	
17	MUSIC_CD	ID	NUMBER	MUSIC_CD_TBL	ID	NUMBER	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	
18	MUSIC_CD	PRODUCT_ID	NUMBER	MUSIC_CD_TBL	PRODUCT_ID	NUMBER	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	
19	MUSIC_CD	TITLE	VARCHAR2	MUSIC_CD_TBL	TITLE	VARCHAR2	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	
20	MUSIC_CD	ARTISTS	VARCHAR2	MUSIC_CD_TBL	ARTISTS	VARCHAR2	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	
21	MUSIC_CD	RECORD_COMPANY	VARCHAR2	MUSIC_CD_TBL	RECORD_COMPANY	VARCHAR2	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	
22	MUSIC_CD	PRICE	NUMBER	MUSIC_CD_TBL	PRICE	NUMBER	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	
23	MUSIC_CD	GENRE_ID	NUMBER	MUSIC_CD_TBL	GENRE_ID	NUMBER	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	
24	MUSIC_CD	DESCRIPTION	VARCHAR2	MUSIC_CD_TBL	DESCRIPTION	VARCHAR2	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	(null)	
25	PRODUCT	PRODUCT_ID	NUMBER	PRODUCT_TAB	PRODUCT_ID	NUMBER	PRODUCT	PRODUCT_ID	NUMBER	(null)	(null)	PRD	PRD_ID	NUMBER	(null)	
26	PRODUCT	PRODUCT_TYPE	VARCHAR2	PRODUCT_TAB	PRODUCT_TYPE	VARCHAR2	PRODUCT	PRODUCT_TYPE	VARCHAR2	(null)	(null)	PRD	PRD_TYPE	VARCHAR2	(null)	
27	PRODUCT	TITLE	VARCHAR2	PRODUCT_TAB	TITLE	VARCHAR2	PRODUCT	PRODUCT_NAME	VARCHAR2	(null)	(null)	PRD	PRD_NAME	VARCHAR2	(null)	
28	PRODUCT	STOCK_COUNT	NUMBER	PRODUCT_TAB	STOCK_COUNT	NUMBER	PRODUCT	PRODUCT_QUANTITY	NUMBER	(null)	(null)	PRD	PRD_QUANTITY	NUMBER	(null)	
29	PURCHASE	PURCHASE_ID	NUMBER	PURCHASES_TBL	PURCHASE_ID	NUMBER	ORDERS	ORDER_ID	NUMBER	(null)	(null)	ORDERS	ORDER_ID	NUMBER	(null)	
30	PURCHASE	PRODUCT_ID	NUMBER	PURCHASES_TBL	PRODUCT_ID	NUMBER	LINE_ITEM	PRODUCT_ID	NUMBER	(null)	(null)	SALES	PRD_ID	NUMBER	(null)	
31	PURCHASE	CUST_ID	NUMBER	PURCHASES_TBL	CUST_ID	NUMBER	ORDERS	CUSTOMER_ID	NUMBER	(null)	(null)	ORDERS	CUST_ID	NUMBER	(null)	
32	PURCHASE	QUANTITY	NUMBER	PURCHASES_TBL	QUANTITY	NUMBER	LINE_ITEM	ITEM_QUANTITY	NUMBER	(null)	(null)	SALES	ITEM_QUANTITY	NUMBER	(null)	
33	PURCHASE	AMOUNT	NUMBER	PURCHASES_TBL	AMOUNT	NUMBER	LINE_ITEM	PRICE_PER_UNIT	FLOAT	(null)	(null)	to_number('PRICE_PER_UNIT')	SALES	PRICE_PER_UNIT	NUMBER	(null)
34	PURCHASE	SALE_DATE	DATE	PURCHASES_TBL	SALE_DATE	DATE	ORDERS	ORDER_DATE	DATE	(null)	(null)	ORDERS	ORDER_DATE	DATE	(null)	
35	PRODUCT	DESCRIPTION	VARCHAR2	(null)	(null)	(null)	PRODUCT	PRODUCT_DESCRIPTION	VARCHAR2	(null)	(null)	PRD	PRD_DESCRIPTION	VARCHAR2	(null)	
36	CUSTOMERS	EMAIL	VARCHAR2	(null)	(null)	(null)	CUSTOMER	EMAIL	VARCHAR2	(null)	(null)	CUSTOMER	EMAIL	VARCHAR2	(null)	
37	PURCHASE	ITEM_ID	NUMBER	(null)	(null)	(null)	LINE_ITEM	ITEM_ID	NUMBER	(null)	(null)	SALES	SALE_ID	NUMBER	(null)	
38	PURCHASE	ORDER_ID	NUMBER	(null)	(null)	(null)	LINE_ITEM	ORDER_ID	NUMBER	(null)	(null)	SALES	ORDER_ID	NUMBER	(null)	
39	PURCHASE	DESCRIPTION	VARCHAR2	(null)	(null)	(null)	LINE_ITEM	ITEM_DESCRIPTION	VARCHAR2	(null)	(null)	SALES	SALE_DESCRIPTION	VARCHAR2	(null)	
40	PURCHASE	SHIPPING	VARCHAR2	(null)	(null)	(null)	ORDERS	SHIPPING	VARCHAR2	(null)	(null)	ORDERS	SHIPPING	VARCHAR2	(null)	
41	PURCHASE	SALES_TAX	FLOAT	(null)	(null)	(null)	ORDERS	SALES_TAX	FLOAT	(null)	(null)	ORDERS	SALES_TAX	FLOAT	(null)	
42	PURCHASE	STATUS	VARCHAR2	(null)	(null)	(null)	ORDERS	ORDER_STATUS	VARCHAR2	(null)	(null)	ORDERS	ORDER_STATUS	VARCHAR2	(null)	