SQL Code

```sql
#JOINS
#CREATE DATABASE JOINS_DS63;
USE JOINS_DS63;
#CATEGORY --> CATEGORY_ID (PRIMARY KEY)
#MEMBERSHIP --> FACT TABLE --> MEMBERSHIP_ID,GROUP_ID,USER_ID
#ORDER_DETAILS --> ORDER_ID(PRIMARY KEY),CATEGORY_ID(FK)
#USERS --> USER_ID(PK)
#GROUPS--> GROUP_ID
#INNER JOIN,LEFT JOIN,RIGHT JOIN,OUTER JOIN,ADDITIONAL --> SELF JOIN
#INNER JOIN
-- 1. SHOW ALL ORDERS ALONG WITH THEIR ORDER AMOUNT AND QUANTITY.
#ALISING
SELECT O.ORDER_ID,OD.AMOUNT,OD.QUANTITY
FROM ORDERSS AS O
INNER JOIN ORDER_DETAILS AS OD
ON O.ORDER_ID = OD.ORDER_ID;
-- 2. DISPLAY ORDER ID,ORDER DATE AND CATEGORY NAME FOR ORDERS THAT HAVE ORDER DETAILS.
# ORDERS --> ORDER_ID,ORDER_DATE
# ORDER_DETAILS --> CATEGORY_ID
SELECT O.ORDER_ID,O.ORDER_DATE,C.CATEGORY AS CATEGORY_NAME
FROM ORDERSS AS O
INNER JOIN ORDER_DETAILS AS OD
ON O.ORDER_ID = O.ORDER_ID
INNER JOIN CATEGORY AS C
ON OD.CATEGORY_ID = C.CATEGORY_ID;
-- 3. LIST USER_ID,ORDER_ID,AND PROFIT FOR USERS WHO HAVE PLACED ORDERS.
#USERS --> USER_ID
#ORDERS --> USER ID,ORDER_ID
#ORDER_DETAILS ---> ORDER_ID
SELECT U.USER_ID,U.NAME,O.ORDER_ID,OD.PROFIT
FROM USERS AS U
INNER JOIN ORDERSS AS O
ON U.USER_ID=O.USER_ID
INNER JOIN ORDER_DETAILS AS OD
ON O.ORDER_ID=OD.ORDER_ID;

-- ------------------------------------------------------------------------
-- LEFT JOIN ---------------------------------------------------

-- 4. SHOW ALL ORDERS AND THEIR ORDER DETAILS.
-- INCLUDE ORDERS EVEN IF THEY DON'T HAVE ANY OTHER DETAILS.
SELECT * FROM ORDERSS AS O
LEFT JOIN ORDER_DETAILS AS OD
ON O.ORDER_ID=OD.ORDER_ID;
-- 5. DISPLAY ALL USERS FROM THE MEMBERSHIP TABLE AND THEIR ORDERS (IF ANY)
SELECT * FROM USERS AS U
LEFT JOIN MEMBERSHIP AS M
ON U.USER_ID = M.USER_ID;
-- 6. LIST ALL THE ORDERS DETAILS AND THEIR CATEGORY NAMES.
 --   INCLUDE ORDER DETAILS EVENIF CATEGORY IS MISSING.
SELECT OD.ORDER_ID,OD.AMOUNT,OD.PROFIT,C.CATEGORY
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```sql
FROM ORDER_DETAILS AS OD
LEFT JOIN CATEGORY AS C
ON OD.CATEGORY_ID = C.CATEGORY_ID;
-- ------------------------------------------------------------------------------------------
-- RIGHT JOIN

-- 7. SHOW ALL ORDER DETAILS AND THEIR ORDER DATES.
-- INCLUDE ORDER DETAILS EVEN IF THE ORDER INFORMATION IS MISSING.
 #ORDER
 #ORDER DETAIL

 SELECT O.ORDER_ID,O.ORDER_DATE,OD.AMOUNT,OD.PROFIT,OD.QUANTITY FROM ORDERSS AS O
 RIGHT JOIN ORDER_DETAILS AS OD
 ON O.ORDER_ID = OD.ORDER_ID;

 -- 8 . DISPLAY ALL CATEGORIES AND THE ORDERS RELATED TO THEM.
 --     INCLUDE CATEGORIES EVEN IF NO ORDERS EXISTS.
 # ORDERS_DETAIL
 # CATEGORY
 SELECT* FROM ORDER_DETAILS AS OD
 RIGHT JOIN CATEGORY AS C
 ON OD.CATEGORY_ID=C.CATEGORY_ID;

 -- ------------------------------------------------------------------------------------------
 --    FULL OUTER JOIN

 -- 10. DISPLAY ALL ORDERS AND ALL ORDER DETAILS,
 -- INCLUDING UNMATCHED RECORDS FROM BOTH TABLES.
 SELECT*
 FROM ORDERSS AS O
 LEFT JOIN ORDER_DETAILS AS OD
 ON O.ORDER_ID=OD.ORDER_ID
 UNION
 SELECT*
 FROM ORDERSS AS O
 RIGHT JOIN ORDER_DETAILS AS OD
 ON O.ORDER_ID=OD.ORDER_ID;

 -- 11. SHOW ALL USERS AND ALL ORDERS,EVEN IF A USER HAS NO ORDER OR AN ORDER HAS NO USER.
 SELECT*
 FROM USERS AS U
 LEFT JOIN ORDERSS AS O
 ON U.USER_ID = O.USER_ID
 LEFT JOIN ORDER_DETAILS AS OD
 ON O.ORDER_ID = OD.ORDER_ID
 UNION
 SELECT*
 FROM USERS AS U
 LEFT JOIN ORDERSS AS O
 ON U.USER_ID = O.USER_ID
 RIGHT JOIN ORDER_DETAILS AS OD
 ON O.ORDER_ID = OD.ORDER_ID;
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105     -- ================================================================================
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