

SQL Code

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1 #JOINS
2 #CREATE DATABASE JOINS_DS63;
3 USE JOINS_DS63;
4 #CATEGORY --> CATEGORY_ID (PRIMARY KEY)
5 #MEMBERSHIP --> FACT TABLE --> MEMBERSHIP_ID, GROUP_ID, USER_ID
6 #ORDER_DETAILS --> ORDER_ID(PRIMARY KEY), CATEGORY_ID(FK)
7 #USERS --> USER_ID(PK)
8 #GROUPS--> GROUP_ID
9 #INNER JOIN,LEFT JOIN,RIGHT JOIN,OUTER JOIN,ADDITIONAL --> SELF JOIN
10 #INNER JOIN
11 -- 1. SHOW ALL ORDERS ALONG WITH THEIR ORDER AMOUNT AND QUANTITY.
12 #ALISING
13 SELECT O.ORDER_ID,OD.AMOUNT,OD.QUANTITY
14 FROM ORDERSS AS O
15 INNER JOIN ORDER_DETAILS AS OD
16 ON O.ORDER_ID = OD.ORDER_ID;
17 -- 2. DISPLAY ORDER ID,ORDER DATE AND CATEGORY NAME FOR ORDERS THAT HAVE ORDER DETAI
LS.
18 # ORDERS --> ORDER_ID,ORDER_DATE
19 # ORDER_DETAILS --> CATEGORY_ID
20 SELECT O.ORDER_ID,O.ORDER_DATE,C.CATEGORY AS CATEGORY_NAME
21 FROM ORDERSS AS O
22 INNER JOIN ORDER_DETAILS AS OD
23 ON O.ORDER_ID = O.ORDER_ID
24 INNER JOIN CATEGORY AS C
25 ON OD.CATEGORY_ID = C.CATEGORY_ID;
26 -- 3. LIST USER_ID,ORDER_ID,AND PROFIT FOR USERS WHO HAVE PLACED ORDERS.
27 #USERS --> USER_ID
28 #ORDERS --> USER_ID,ORDER_ID
29 #ORDER_DETAILS ---> ORDER_ID
30 SELECT U.USER_ID,U.NAME,O.ORDER_ID,OD.PROFIT
31 FROM USERS AS U
32 INNER JOIN ORDERSS AS O
33 ON U.USER_ID=O.USER_ID
34 INNER JOIN ORDER_DETAILS AS OD
35 ON O.ORDER_ID=OD.ORDER_ID;
36
37 ----- -
38 -- LEFT JOIN -----
39
40 -- 4. SHOW ALL ORDERS AND THEIR ORDER DETAILS.
41 -- INCLUDE ORDERS EVEN IF THEY DON'T HAVE ANY OTHER DETAILS.
42 SELECT * FROM ORDERSS AS O
43 LEFT JOIN ORDER_DETAILS AS OD
44 ON O.ORDER_ID=OD.ORDER_ID;
45 -- 5. DISPLAY ALL USERS FROM THE MEMBERSHIP TABLE AND THEIR ORDERS (IF ANY)
46 SELECT * FROM USERS AS U
47 LEFT JOIN MEMBERSHIP AS M
48 ON U.USER_ID = M.USER_ID;
49 -- 6. LIST ALL THE ORDERS DETAILS AND THEIR CATEGORY NAMES.
50 --   INCLUDE ORDER DETAILS EVENIF CATEGORY IS MISSING.
51 SELECT OD.ORDER_ID,OD.AMOUNT,OD.PROFIT,C.CATEGORY
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52   FROM ORDER_DETAILS AS OD
53   LEFT JOIN CATEGORY AS C
54   ON OD.CATEGORY_ID = C.CATEGORY_ID;
55   -- -----
56   --
57
58   -- 7. SHOW ALL ORDER DETAILS AND THEIR ORDER DATES.
59   -- INCLUDE ORDER DETAILS EVEN IF THE ORDER INFORMATION IS MISSING.
60   #ORDER
61   #ORDER DETAIL
62
63   SELECT O.ORDER_ID,O.ORDER_DATE,OD.AMOUNT,OD.PROFIT,OD.QUANTITY FROM ORDERSS AS O
64   RIGHT JOIN ORDER_DETAILS AS OD
65   ON O.ORDER_ID = OD.ORDER_ID;
66
67   -- 8 . DISPLAY ALL CATEGORIES AND THE ORDERS RELATED TO THEM.
68   -- INCLUDE CATEGORIES EVEN IF NO ORDERS EXISTS.
69   # ORDERS_DETAIL
70   # CATEGORY
71   SELECT* FROM ORDER_DETAILS AS OD
72   RIGHT JOIN CATEGORY AS C
73   ON OD.CATEGORY_ID=C.CATEGORY_ID;
74
75   -- -----
76   --
77
78   -- 10. DISPLAY ALL ORDERS AND ALL ORDER DETAILS,
79   -- INCLUDING UNMATCHED RECORDS FROM BOTH TABLES.
80   SELECT*
81   FROM ORDERSS AS O
82   LEFT JOIN ORDER_DETAILS AS OD
83   ON O.ORDER_ID=OD.ORDER_ID
84   UNION
85   SELECT*
86   FROM ORDERSS AS O
87   RIGHT JOIN ORDER_DETAILS AS OD
88   ON O.ORDER_ID=OD.ORDER_ID;
89
90   -- 11. SHOW ALL USERS AND ALL ORDERS,EVEN IF A USER HAS NO ORDER OR AN ORDER HAS NO
USER.
91   SELECT*
92   FROM USERS AS U
93   LEFT JOIN ORDERSS AS O
94   ON U.USER_ID = O.USER_ID
95   LEFT JOIN ORDER_DETAILS AS OD
96   ON O.ORDER_ID = OD.ORDER_ID
97   UNION
98   SELECT*
99   FROM USERS AS U
100  LEFT JOIN ORDERSS AS O
101  ON U.USER_ID = O.USER_ID
102  RIGHT JOIN ORDER_DETAILS AS OD
103  ON O.ORDER_ID = OD.ORDER_ID;

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