

# Practical 2

## Question 1

13

--1. INNER JOIN: Orders with Customer and Product Names

15

--Question: List all orders along with the customer name and product name.

16

--Expected Output Columns: OrderID, OrderDate, CustomerName, ProductName, Quantity

17

SELECT A.orderid,

18

A.orderdate,

19

B.customername,

20

C.productname,

21

A.quantity

22

FROM practical2.purchases.orders AS A

23

INNER JOIN practical2.purchases.customers AS B

24

ON A.customerid = B.customerid

25

INNER JOIN practical2.purchases.products AS C

26

ON C.productid = A.productid;

27

Results (4 minutes ago)

TableChart

4,000 rows177ms

	# PRODUCTID	PRODUCTNAME	# PRICE	# ORDERID	ORDERDATE	# CUSTOMERID	# QUANTITY
1	2014	Product_2014	522	1	2023-06-10	1251	10
2	2004	Product_2004	1996	2	2023-12-07	1236	5
3	2171	Product_2171	76	3	2024-10-26	1170	9
4	2007	Product_2007	156	4	2023-02-17	1344	2
5	2061	Product_2061	1595	5	2024-11-06	1319	2

## Question 2

27

--2. INNER JOIN: Customers Who Placed Orders

29

--Question:

30

--Which customers have placed at least one order?

31

--Expected Output Columns:

32

-- CustomerID, CustomerName, Country, OrderID, OrderDate

33

SELECT orderid,

34

A.orderdate,

35

B.customername,

36

C.productname,

37

A.quantity

38

FROM practical2.purchases.orders AS A

39

INNER JOIN practical2.purchases.customers AS B

40

ON A.customerid = B.customerid

41

INNER JOIN practical2.purchases.products AS C

42

ON C.productid = A.productid

43

WHERE quantity >0;

44

Results (6 minutes ago)

TableChart

4,000 rows177ms

	# PRODUCTID	PRODUCTNAME	# PRICE	# ORDERID	ORDERDATE	# CUSTOMERID	# QUANTITY
1	2014	Product_2014	522	1	2023-06-10	1251	10
2	2004	Product_2004	1996	2	2023-12-07	1236	5
3	2171	Product_2171	76	3	2024-10-26	1170	9
4	2007	Product_2007	156	4	2023-02-17	1344	2

Question 3

44

--3. LEFT JOIN: All Customers and Their Orders

46

--Question:

47

--List all customers and any orders they might have placed. Include customers who have not placed any orders.

48

--Expected Output Columns:

49

-- CustomerID, CustomerName, Country, OrderID, OrderDate, ProductID, Quantity

50

SELECT A.customerid,

51

A.customername,

52

A.country,

53

B.orderid,

54

B.orderdate,

55

B.productid,

56

B.quantity

57

FROM practical2.purchases.customers AS A

58

LEFT JOIN practical2.purchases.orders AS B

59

ON A.customerid = B.customerid;

60

Results (just now)

TableChart

4,000 rows308ms

#	CUSTOMERID	CUSTOMERNAME	COUNTRY	ORDERID	ORDERDATE	PRODUCTID	QUANTITY
1	1251	Customer_1251	Germany	1	2023-06-10	2014	10
2	1236	Customer_1236	Australia	2	2023-12-07	2004	5
3	1170	Customer_1170	Germany	3	2024-10-26	2171	9

Question 4

61

--4. LEFT JOIN: Product Order Count

62

--Question:

63

--List all products and how many times each was ordered (if any).

64

--Expected Output Columns:

65

--ProductID, ProductName, TotalOrders

66

--(TotalOrders is the count of how many times the product appears in orders)

67

SELECT A.productid,

68

B.productname,

69

COUNT(A.productid) AS TotalOrders

70

FROM practical2.purchases.orders AS A

71

LEFT JOIN practical2.purchases.products AS B

72

ON A.productid = B.productid

73

GROUP BY A.productid,B.productname;

74

Results (just now)

TableChart

200 rows85ms

#	PRODUCTID	PRODUCTNAME	TOTALORDERS
	2001	Product_2001	0.5%
	2200	Product_2002	0.5%
		+98 more	
1	2105	Product_2105	14
2	2063	Product_2063	24
3	2059	Product_2059	17

Question 5

75 --5. RIGHT JOIN: Orders with Product Info (Include Products Not Ordered)

76 --Question:

77 --Find all orders along with product details, including any products that might not have been ordered.

78 --Expected Output Columns:

79 -- OrderID, OrderDate, ProductID, ProductName, Price, Quantity

80 SELECT A.orderid,

81 A.orderdate,

82 B.productid,

83 B.productname,

84 B.price,

85 A.quantity

86 FROM practical2.purchases.orders AS A

87 RIGHT JOIN practical2.purchases.products AS B

88 ON A.productid = B.productid;

89

Results (just now)

TableChart

4,000 rows35ms

#	ORDERID	ORDERDATE	PRODUCTID	PRODUCTNAME	PRICE	QUANTITY
1	1	2023-06-10	2014	Product_2014	522	10
2	2	2023-12-07	2004	Product_2004	1996	5
3	3	2024-10-26	2171	Product_2171	76	9
4	4	2023-02-17	2007	Product_2007	156	2
5	5	2024-11-06	2061	Product_2061	1595	2

Question 6

90 --6. RIGHT JOIN: Customer Info with Orders (Include ALL Customers)

91 --Question:

92 --Which customers have made orders, and include customers even if they have never placed an order.

93 --Expected Output Columns:

94 -- CustomerID, CustomerName, Country, OrderID, OrderDate, ProductID, Quantity

95 SELECT B.customerid,

96 B.customername,

97 B.country,

98 A.orderid,

99 A.orderdate,

100 A.productid,

101 A.quantity,

102 FROM practical2.purchases.orders AS A

103 RIGHT JOIN practical2.purchases.customers AS B

104 ON A.customerid = B.customerid;

105

Results (just now)

TableChart

4,000 rows23ms

#	CUSTOMERID	CUSTOMERNAME	COUNTRY	ORDERID	ORDERDATE	PRODUCTID	QUANTITY
1	1251	Customer_1251	Germany	1	2023-06-10	2014	10
2	1236	Customer_1236	Australia	2	2023-12-07	2004	5
3	1170	Customer_1170	Germany	3	2024-10-26	2171	9
4	1344	Customer_1344	Canada	4	2023-02-17	2007	2

Question 7

107--7. FULL OUTER JOIN: All Customers and All Orders

108--Question:

109--List all customers and orders, showing NULLs where customers have not ordered or where orders have no customer info.

110--Expected Output Columns:

111-- CustomerID, CustomerName, Country, OrderID, OrderDate, ProductID, Quantity

112SELECT B.customerid,

113B.customername,

114B.country,

115A.orderid,

116A.orderdate,

117A.productid,

118A.quantity,

119FROM practical2.purchases.orders AS A

120FULL OUTER JOIN practical2.purchases.customers AS B

121ON A.customerid = B.customerid;

122

Results (just now)

TableChart

4,000 rows24ms

	# CUSTOMERID	△ CUSTOMERNAME	△ COUNTRY	# ORDERID	📅 ORDERDATE	# PRODUCTID	# QUANTITY
1	1251	Customer_1251	Germany	1	2023-06-10	2014	10
2	1236	Customer_1236	Australia	2	2023-12-07	2004	5
3	1170	Customer_1170	Germany	3	2024-10-26	2171	9
4	1344	Customer_1344	Canada	4	2023-02-17	2007	2

Question 8

123--8. FULL OUTER JOIN: All Products and Orders

124--Question:

125--List all products and orders, showing NULLs where products were never ordered or orders are missing product info.

126--Expected Output Columns:

127-- ProductID, ProductName, Price, OrderID, OrderDate, CustomerID, Quantity

128SELECT B.productid,

129B.productname,

130B.price,

131A.orderid,

132A.orderdate,

133A.customerid,

134A.quantity,

135FROM practical2.purchases.orders AS A

136FULL OUTER JOIN practical2.purchases.products AS B

137ON A.productid = B.productid;

138

Results (just now)

TableChart

4,000 rows28ms

	# PRODUCTID	△ PRODUCTNAME	# PRICE	# ORDERID	📅 ORDERDATE	# CUSTOMERID	# QUANTITY
1	2014	Product_2014	522	1	2023-06-10	1251	10
2	2004	Product_2004	1996	2	2023-12-07	1236	5
3	2171	Product_2171	76	3	2024-10-26	1170	9
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