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JustLee Books has become the exclusive distributor for a number of books. The company now needs to assign sales representatives to retail bookstores to handle the new distribution duties.

PART 1 : In this part, you first need to run **JLDB_Build_8.sql** script to ensure that all necessary tables and constraints are available

- 1) SELECT title, category
FROM BOOKS
WHERE category != 'FITNESS';

TITLE	CATEGORY
BUILDING A CAR WITH TOOTHPICKS	CHILDREN
COOKING WITH MUSHROOMS	COOKING
HANDCRANKED COMPUTERS	COMPUTER
PAINLESS CHILD-REARING	FAMILY LIFE
BIG BEAR AND LITTLE DOVE	CHILDREN
HOW TO GET FASTER PIZZA	SELF HELP
REVENGE OF MICKEY	FAMILY LIFE
DATABASE IMPLEMENTATION	COMPUTER
HOLY GRAIL OF ORACLE	COMPUTER
E-BUSINESS THE EASY WAY	COMPUTER
THE WOK WAY TO COOK	COOKING
HOW TO MANAGE THE MANAGER	BUSINESS
SHORTEST POEMS	LITERATURE

- 2) SELECT CUSTOMER#, LastName, State
FROM Customers
WHERE State = 'GA' or State = 'NJ'
ORDER BY LastName asc;

CUSTOMER#	LASTNAME	STATE
1020	FALAH	NJ
1010	LUCAS	GA
1018	MONTIASA	GA
1019	SMITH	NJ

- 3) SELECT ORDER#, ORDERDATE
FROM ORDERS
WHERE ORDERDATE <='04/01/2009';

ORDER#	ORDERDATE
1000	03/31/2009
1001	03/31/2009
1002	03/31/2009
1003	04/01/2009
1004	04/01/2009
1005	04/01/2009
1006	04/01/2009

```

4) SELECT TITLE
   FROM BOOKS
   WHERE RETAIL - COST >= '10.00'
   ORDER BY RETAIL - COST DESC;

```

TITLE
PAINLESS CHILD-REARING
HOLY GRAIL OF ORACLE
DATABASE IMPLEMENTATION
BUILDING A CAR WITH TOOTHPICKS
SHORTEST POEMS
E-BUSINESS THE EASY WAY
HOW TO MANAGE THE MANAGER
BODYBUILD IN 10 MINUTES A DAY
HOW TO GET FASTER PIZZA

```

5) SELECT TITLE
   FROM BOOKS
   WHERE RETAIL - COST >= '10.00'
   ORDER BY RETAIL - COST DESC;

```

ISBN	TITLE	PUBDATE	PUBID	COST	RETAIL	DISCOUNT	CATEGORY
8843172113	DATABASE IMPLEMENTATION	06/04/2003	3	31.4	55.95	-	COMPUTER
3957136468	HOLY GRAIL OF ORACLE	12/31/2005	3	47.25	75.95	3.8	COMPUTER

PART 2: Construct two SQL statements for each of the following tasks: a) with traditional approach, and b) using JOIN keyword. Apply table aliases in all queries.

1) a) SELECT b.title, p.contact, p.phone
FROM books b, publisher p
WHERE b.pubid = p.pubid;

b) SELECT b.title, p.contact, p.phone
FROM books b **JOIN** publisher p
USING (pubid);

TITLE	CONTACT	PHONE
BODYBUILD IN 10 MINUTES A DAY	RENEE SMITH	800-555-9743
REVENGE OF MICKEY	TOMMIE SEYMOUR	000-714-8321
BUILDING A CAR WITH TOOTHPICKS	JANE TOMLIN	010-410-0010
DATABASE IMPLEMENTATION	DAVID DAVIDSON	800-555-1211
COOKING WITH MUSHROOMS	RENEE SMITH	800-555-9743
HOLY GRAIL OF ORACLE	DAVID DAVIDSON	800-555-1211
HANDCRANKED COMPUTERS	DAVID DAVIDSON	800-555-1211
E-BUSINESS THE EASY WAY	JANE TOMLIN	010-410-0010
PAINLESS CHILD-REARING	SEBASTIAN JONES	800-555-8284
THE WOK WAY TO COOK	RENEE SMITH	800-555-9743
BIG BEAR AND LITTLE DOVE	SEBASTIAN JONES	800-555-8284
HOW TO GET FASTER PIZZA	RENEE SMITH	800-555-9743
HOW TO MANAGE THE MANAGER	TOMMIE SEYMOUR	000-714-8321
SHORTEST POEMS	SEBASTIAN JONES	800-555-8284

2) a) SELECT c.firstname, c.lastname, o.order#
FROM customers c, orders o
WHERE c.customer# = o.customer#
AND o.shipdate IS NULL
ORDER BY o.orderdate;

b) SELECT c.FIRSTNAME, c.LASTNAME, o.ORDER#
FROM CUSTOMERS c **JOIN** ORDERS o
USING (CUSTOMER#);

FIRSTNAME	LASTNAME	ORDER#
CINDY	GIRARD	1000
JAKE	LUCAS	1001
REESE	MCGOVERN	1002
BONITA	MORALES	1003
KENNETH	FALAH	1004
GREG	MONTIASA	1005
LEILA	SMITH	1006
TAMMY	GIANA	1007
THOMAS	PIERSON	1008
CINDY	GIRARD	1009
JENNIFER	SMITH	1010
JAKE	LUCAS	1011
BECCA	NELSON	1012
JASMINE	LEE	1013
TAMMY	GIANA	1014
KENNETH	FALAH	1015
LEILA	SMITH	1016
STEVE	SCHELL	1017
BONITA	MORALES	1018
GREG	MONTIASA	1019
KENNETH	JONES	1020

3) a) `SELECT DISTINCT c.lastname, c.customer#`
`FROM books b, orders o, orderitems i, customers c`
`WHERE c.customer# = o.customer#`
`AND o.order# = i.order#`
`AND i.isbn = b.isbn`
`AND c.state = 'FL'`
`AND b.category = 'COMPUTER';`

b) `SELECT DISTINCT c.lastname, customer#`
`FROM books b JOIN orderitems`
`USING (isbn)`
`JOIN orders`
`USING (order#)`
`JOIN customers c`
`USING (customer#)`
`WHERE c.state = 'FL'`
`AND b.category = 'COMPUTER';`

LASTNAME	CUSTOMER#
SMITH	1003
MORALES	1001

4) a) `SELECT distinct b.title`
`FROM customers c, orders o,orderitems i,books b`
`WHERE c.customer# = o.customer# and o.order# = i.order#`
`AND i.isbn=b.isbn`
`AND c.firstname = 'JAKE' and c.lastname = 'LUCAS';`

b) `SELECT DISTINCT customers.firstname || ' ' || customers.lastname "NAME", books.title`
`FROM customers INNER JOIN orders`
`ON customers.customer# = orders.customer#`

```

INNER JOIN orderitems
ON orderitems.order# = orders.order#
LEFT JOIN books
ON books.ISBN = orderitems.ISBN
WHERE (customers.firstname || ' ' || customers.lastname) = 'JAKE LUCAS';

```

TITLE
PAINLESS CHILD-REARING
HOW TO MANAGE THE MANAGER

5) a) SELECT orders.orderdate, books.title, (orderitems.paideach-books.cost) "PROFIT"
FROM customers, orders, orderitems, books
WHERE customers.firstname = 'JAKE'
AND customers.lastname = 'LUCAS'
AND customers.customer# = orders.customer#
AND orderitems.order# = orders.order#
AND books.ISBN = orderitems.ISBN
ORDER BY profit DESC, orderdate;

b) SELECT orders.orderdate, books.title, (orderitems.paideach-books.cost) "PROFIT"
From CUSTOMERS NATURAL JOIN orders
NATURAL JOIN orderitems
NATURAL JOIN books
WHERE customers.firstname = 'JAKE'
AND customers.lastname = 'LUCAS'
ORDER BY profit DESC, orderdate;

NAME	TITLE
JAKE LUCAS	PAINLESS CHILD-REARING
JAKE LUCAS	HOW TO MANAGE THE MANAGER

PART 3: Construct a SQL statement for each of the following tasks:

- 1) SELECT firstname, lastname, NVL2(referred, 'REFERRED', 'NOT REFERRED')
FROM customers;

FIRSTNAME	LASTNAME	NVL2(REFERRED,'REFERRED','NOTREFERRED')
BONITA	MORALES	NOT REFERRED
RYAN	THOMPSON	NOT REFERRED
LEILA	SMITH	NOT REFERRED
THOMAS	PIERSON	NOT REFERRED
CINDY	GIRARD	NOT REFERRED
MESHIA	CRUZ	NOT REFERRED
TAMMY	GIANA	REFERRED
KENNETH	JONES	NOT REFERRED
JORGE	PEREZ	REFERRED
JAKE	LUCAS	NOT REFERRED
REESE	MCGOVERN	NOT REFERRED
WILLIAM	MCKENZIE	NOT REFERRED
NICHOLAS	NGUYEN	REFERRED
JASMINE	LEE	NOT REFERRED
STEVE	SHELL	NOT REFERRED
MICHELL	DAUM	REFERRED
BECCA	NELSON	NOT REFERRED
GREG	MONTIASA	NOT REFERRED
JENNIFER	SMITH	REFERRED
KENNETH	FALAH	NOT REFERRED

- 2) SELECT title, ROUND((retail-cost)/cost*100,0) || '%'
FROM books;

TITLE	ROUND((RETAIL-COST)/COST*100,0) '%'
BODYBUILD IN 10 MINUTES A DAY	65%
REVENGE OF MICKEY	55%
BUILDING A CAR WITH TOOTHPICKS	59%
DATABASE IMPLEMENTATION	78%
COOKING WITH MUSHROOMS	60%
HOLY GRAIL OF ORACLE	61%
HANDCRANKED COMPUTERS	15%
E-BUSINESS THE EASY WAY	44%
PAINLESS CHILD-REARING	87%
THE WOK WAY TO COOK	51%
BIG BEAR AND LITTLE DOVE	68%
HOW TO GET FASTER PIZZA	68%
HOW TO MANAGE THE MANAGER	107%
SHORTEST POEMS	83%

PART 4: Construct a SQL statement for each of the following tasks.

- 1) SELECT COUNT(*)FROM books
WHERE category = 'COOKING';

COUNT(*)
2

- 2) SELECT SUM((retail-cost)*quantity)
FROM orders JOIN orderitems
USING(order#)
JOIN books USING(isbn)
WHERE customer# = 1017;

SUM((RETAIL-COST)*QUANTITY)
59.78

- 3) SELECT AVG(SUM((retail-cost)*quantity))
FROM orders JOIN orderitems
USING(order#)
JOIN books USING(isbn)
GROUP BY order#;

AVG(SUM((RETAIL-COST)*QUANTITY))
33.772380952380952380952380952381

- 4) SELECT customer#, COUNT(*)
FROM orders
GROUP BY customer#;

CUSTOMER#	COUNT(*)
1011	1
1003	2
1017	1
1001	2
1007	2
1010	2
1004	1
1015	1
1005	2
1014	1
1008	1
1020	2
1018	2
1019	1

```
5) SELECT name, category, AVG( retail )
FROM books
JOIN publisher USING( pubid )
WHERE category IN( 'COMPUTER', 'CHILDREN' )
GROUP BY name, category;
```

NAME	CATEGORY	AVG(RETAIL)
PUBLISH OUR WAY	CHILDREN	59.95
AMERICAN PUBLISHING	COMPUTER	52.3
PUBLISH OUR WAY	COMPUTER	54.5
REED-N-RITE	CHILDREN	8.95