ITI-2180 Foundations of Data and Database Management

*Gabriel Nestor*

**Problem A**

**CODE:**

SELECT TITLE, RETAIL

FROM BOOKS

WHERE RETAIL <ALL(SELECT AVG(RETAIL)

FROM BOOKS);

**OUTPUT:**

TITLE RETAIL

------------------------------ ----------

BODYBUILD IN 10 MINUTES A DAY 30.95

REVENGE OF MICKEY 22

COOKING WITH MUSHROOMS 19.95

HANDCRANKED COMPUTERS 25

THE WOK WAY TO COOK 28.75

BIG BEAR AND LITTLE DOVE 8.95

HOW TO GET FASTER PIZZA 29.95

HOW TO MANAGE THE MANAGER 31.95

SHORTEST POEMS 39.95

9 rows selected.

**Problem B**

**CODE:**

SELECT B.TITLE, BO.CATEGORY, B.COST

FROM BOOKS B, (SELECT CATEGORY, AVG(COST) COST FROM BOOKS GROUP BY CATEGORY) BO

WHERE B.CATEGORY = BO.CATEGORY AND B.COST < BO.COST

**OUTPUT:**

TITLE CATEGORY COST

------------------------------ ------------ ----------

REVENGE OF MICKEY FAMILY LIFE 14.2

DATABASE IMPLEMENTATION COMPUTER 31.4

COOKING WITH MUSHROOMS COOKING 12.5

HANDCRANKED COMPUTERS COMPUTER 21.8

BIG BEAR AND LITTLE DOVE CHILDREN 5.32

**Problem C**

**CODE:**

SELECT O.ORDER#, O2.SHIPSTATE

FROM ORDERS O, (SELECT ORDER#, SHIPSTATE

FROM ORDERS

WHERE ORDER# = 1014) O2

WHERE O.SHIPSTATE = O2.SHIPSTATE

**OUTPUT:**

ORDER# SH

---------- --

1007 TX

1014 TX

**Problem D**

**CODE:**

SELECT ORDER#, SUM(QUANTITY\*PAIDEACH)

FROM ORDERITEMS

GROUP BY ORDER#

HAVING SUM(quantity\*paideach) >

(SELECT SUM(quantity\*paideach)

FROM orderitems

WHERE order# = 1008);

**OUTPUT:**

ORDER# SUM(QUANTITY\*PAIDEACH)

---------- ----------------------

1001 117.4

1002 111.9

1003 106.85

1004 170.9

1005 39.95

1006 54.5

1007 335.85

1009 41.95

1010 55.95

1011 85.45

1012 166.4

ORDER# SUM(QUANTITY\*PAIDEACH)

---------- ----------------------

1013 55.95

1014 44

1016 85.45

1018 75.9

15 rows selected.

**Problem E**

**CODE:**

SELECT FNAME, LNAME, AUTHORID, TITLE, ISBN

FROM AUTHOR NATURAL JOIN BOOKAUTHOR NATURAL JOIN BOOKS

WHERE isbn IN

(SELECT ISBN

FROM ORDERITEMS

GROUP BY isbn

HAVING SUM(QUANTITY) >

(SELECT MAX(COUNT(\*))

FROM orderitems

GROUP BY isbn));

**OUTPUT:**

FNAME LNAME AUTH TITLE ISBN

---------- ---------- ---- ------------------------------ ----------

JACK BAKER B100 COOKING WITH MUSHROOMS 3437212490

**Problem F**

**CODE:**

SELECT TITLE, RETAIL

FROM BOOKS

WHERE (PUBID, RETAIL) = (SELECT PUBID, MAX(RETAIL)

FROM BOOKS

GROUP BY PUBID

HAVING PUBID = (SELECT PUBID FROM PUBLISHER WHERE NAME = 'AMERICAN PUBLISHING'))

**OUTPUT:**

TITLE RETAIL

------------------------------ ----------

HOLY GRAIL OF ORACLE 75.95

**Problem G**

**CODE:**

CREATE VIEW REORDERINFO AS

SELECT ISBN, TITLE, CONTACT, PHONE

FROM BOOKS NATURAL JOIN PUBLISHER;

SELECT \*

FROM REORDERINFO;

**OUTPUT:**

View REORDERINFO created.

ISBN TITLE CONTACT PHONE

---------- ------------------------------ --------------- ------------

0401140733 REVENGE OF MICKEY TOMMIE SEYMOUR 000-714-8321

9247381001 HOW TO MANAGE THE MANAGER TOMMIE SEYMOUR 000-714-8321

9959789321 E-BUSINESS THE EASY WAY JANE TOMLIN 010-410-0010

4981341710 BUILDING A CAR WITH TOOTHPICKS JANE TOMLIN 010-410-0010

3957136468 HOLY GRAIL OF ORACLE DAVID DAVIDSON 800-555-1211

8843172113 DATABASE IMPLEMENTATION DAVID DAVIDSON 800-555-1211

1915762492 HANDCRANKED COMPUTERS DAVID DAVIDSON 800-555-1211

3437212490 COOKING WITH MUSHROOMS RENEE SMITH 800-555-9743

0299282519 THE WOK WAY TO COOK RENEE SMITH 800-555-9743

0132149871 HOW TO GET FASTER PIZZA RENEE SMITH 800-555-9743

1059831198 BODYBUILD IN 10 MINUTES A DAY RENEE SMITH 800-555-9743

ISBN TITLE CONTACT PHONE

---------- ------------------------------ --------------- ------------

2491748320 PAINLESS CHILD-REARING SEBASTIAN JONES 800-555-8284

8117949391 BIG BEAR AND LITTLE DOVE SEBASTIAN JONES 800-555-8284

2147428890 SHORTEST POEMS SEBASTIAN JONES 800-555-8284

14 rows selected.

**Problem H**

**CODE:**

UPDATE REORDERINFO

SET ISBN = 1111111111

WHERE TITLE = 'SHORTEST POEMS';

**OUTPUT:**

Error starting at line : 1 in command -

UPDATE REORDERINFO

SET ISBN = 1111111111

WHERE TITLE = 'SHORTEST POEMS'

Error report -

ORA-02292: integrity constraint (GENESTOR.ORDERITEMS\_ISBN\_FK) violated - child record found

There is a foreign key in orderitems creating a child record from this therefore it cannot be changed.

**Problem I**

**CODE:**

CREATE OR REPLACE VIEW FULL\_ORDERS AS

SELECT \*

FROM CUSTOMERS NATURAL JOIN ORDERS NATURAL JOIN ORDERITEMS

WITH READ ONLY;

SELECT \*

FROM FULL\_ORDERS;

**OUTPUT:**

View FULL\_ORDERS created.

ORDER# CUSTOMER# LASTNAME FIRSTNAME ADDRESS CITY ST ZIP REFERRED RE EMAIL ORDERDATE SHIPDATE SHIPSTREET SHIPCITY SH SHIPZ SHIPCOST ITEM# ISBN QUANTITY PAIDEACH

---------- ---------- ---------- ---------- -------------------- ------------ -- ----- ---------- -- ------------------------------ --------- --------- ------------------ --------------- -- ----- ---------- ---------- ---------- ---------- ----------

1000 1005 GIRARD CINDY P.O. BOX 851 SEATTLE WA 98115 NW cing101@zep.net 31-MAR-19 02-APR-19 1201 ORANGE AVE SEATTLE WA 98114 2 1 3437212490 1 19.95

1001 1010 LUCAS JAKE 114 EAST SAVANNAH ATLANTA GA 30314 SE 31-MAR-19 01-APR-19 114 EAST SAVANNAH ATLANTA GA 30314 3 1 9247381001 1 31.95

1001 1010 LUCAS JAKE 114 EAST SAVANNAH ATLANTA GA 30314 SE 31-MAR-19 01-APR-19 114 EAST SAVANNAH ATLANTA GA 30314 3 2 2491748320 1 85.45

1002 1011 MCGOVERN REESE P.O. BOX 18 CHICAGO IL 60606 N reesemc@sat.net 31-MAR-19 01-APR-19 58 TILA CIRCLE CHICAGO IL 60605 3 1 8843172113 2 55.95

1003 1001 MORALES BONITA P.O. BOX 651 EASTPOINT FL 32328 SE bm225@sat.net 01-APR-19 01-APR-19 958 MAGNOLIA LANE EASTPOINT FL 32328 4 1 8843172113 1 55.95

1003 1001 MORALES BONITA P.O. BOX 651 EASTPOINT FL 32328 SE bm225@sat.net 01-APR-19 01-APR-19 958 MAGNOLIA LANE EASTPOINT FL 32328 4 2 1059831198 1 30.95

1003 1001 MORALES BONITA P.O. BOX 651 EASTPOINT FL 32328 SE bm225@sat.net 01-APR-19 01-APR-19 958 MAGNOLIA LANE EASTPOINT FL 32328 4 3 3437212490 1 19.95

1004 1020 FALAH KENNETH P.O. BOX 335 TRENTON NJ 08607 NE Kfalah@sat.net 01-APR-19 05-APR-19 561 ROUNDABOUT WAY TRENTON NJ 08601 1 2491748320 2 85.45

1005 1018 MONTIASA GREG 1008 GRAND AVENUE MACON GA 31206 SE greg336@sat.net 01-APR-19 02-APR-19 1008 GRAND AVENUE MACON GA 31206 2 1 2147428890 1 39.95

1006 1003 SMITH LEILA P.O. BOX 66 TALLAHASSEE FL 32306 SE 01-APR-19 02-APR-19 558A CAPITOL HWY. TALLAHASSEE FL 32307 2 1 9959789321 1 54.5

1007 1007 GIANA TAMMY 9153 MAIN STREET AUSTIN TX 78710 1003 SW treetop@zep.net 02-APR-19 04-APR-19 9153 MAIN STREET AUSTIN TX 78710 7 1 3957136468 3 72.15

ORDER# CUSTOMER# LASTNAME FIRSTNAME ADDRESS CITY ST ZIP REFERRED RE EMAIL ORDERDATE SHIPDATE SHIPSTREET SHIPCITY SH SHIPZ SHIPCOST ITEM# ISBN QUANTITY PAIDEACH

---------- ---------- ---------- ---------- -------------------- ------------ -- ----- ---------- -- ------------------------------ --------- --------- ------------------ --------------- -- ----- ---------- ---------- ---------- ---------- ----------

1007 1007 GIANA TAMMY 9153 MAIN STREET AUSTIN TX 78710 1003 SW treetop@zep.net 02-APR-19 04-APR-19 9153 MAIN STREET AUSTIN TX 78710 7 2 9959789321 1 54.5

1007 1007 GIANA TAMMY 9153 MAIN STREET AUSTIN TX 78710 1003 SW treetop@zep.net 02-APR-19 04-APR-19 9153 MAIN STREET AUSTIN TX 78710 7 3 8117949391 1 8.95

1007 1007 GIANA TAMMY 9153 MAIN STREET AUSTIN TX 78710 1003 SW treetop@zep.net 02-APR-19 04-APR-19 9153 MAIN STREET AUSTIN TX 78710 7 4 8843172113 1 55.95

1008 1004 PIERSON THOMAS 69821 SOUTH AVENUE BOISE ID 83707 NW tpier55@sat.net 02-APR-19 03-APR-19 69821 SOUTH AVENUE BOISE ID 83707 3 1 3437212490 2 19.95

1009 1005 GIRARD CINDY P.O. BOX 851 SEATTLE WA 98115 NW cing101@zep.net 03-APR-19 05-APR-19 9 LIGHTENING RD. SEATTLE WA 98110 1 3437212490 1 19.95

1009 1005 GIRARD CINDY P.O. BOX 851 SEATTLE WA 98115 NW cing101@zep.net 03-APR-19 05-APR-19 9 LIGHTENING RD. SEATTLE WA 98110 2 0401140733 1 22

1010 1019 SMITH JENNIFER P.O. BOX 1151 MORRISTOWN NJ 07962 1003 NE 03-APR-19 04-APR-19 384 WRONG WAY HOME MORRISTOWN NJ 07960 2 1 8843172113 1 55.95

1011 1010 LUCAS JAKE 114 EAST SAVANNAH ATLANTA GA 30314 SE 03-APR-19 05-APR-19 102 WEST LAFAYETTE ATLANTA GA 30311 2 1 2491748320 1 85.45

1012 1017 NELSON BECCA P.O. BOX 563 KALMAZOO MI 49006 N becca88@digs.com 03-APR-19 1295 WINDY AVENUE KALMAZOO MI 49002 6 1 8117949391 1 8.95

1012 1017 NELSON BECCA P.O. BOX 563 KALMAZOO MI 49006 N becca88@digs.com 03-APR-19 1295 WINDY AVENUE KALMAZOO MI 49002 6 2 1915762492 2 25

1012 1017 NELSON BECCA P.O. BOX 563 KALMAZOO MI 49006 N becca88@digs.com 03-APR-19 1295 WINDY AVENUE KALMAZOO MI 49002 6 3 2491748320 1 85.45

ORDER# CUSTOMER# LASTNAME FIRSTNAME ADDRESS CITY ST ZIP REFERRED RE EMAIL ORDERDATE SHIPDATE SHIPSTREET SHIPCITY SH SHIPZ SHIPCOST ITEM# ISBN QUANTITY PAIDEACH

---------- ---------- ---------- ---------- -------------------- ------------ -- ----- ---------- -- ------------------------------ --------- --------- ------------------ --------------- -- ----- ---------- ---------- ---------- ---------- ----------

1012 1017 NELSON BECCA P.O. BOX 563 KALMAZOO MI 49006 N becca88@digs.com 03-APR-19 1295 WINDY AVENUE KALMAZOO MI 49002 6 4 0401140733 1 22

1013 1014 LEE JASMINE P.O. BOX 2947 CODY WY 82414 N jaslee@sat.net 03-APR-19 04-APR-19 7618 MOUNTAIN RD. CODY WY 82414 2 1 8843172113 1 55.95

1014 1007 GIANA TAMMY 9153 MAIN STREET AUSTIN TX 78710 1003 SW treetop@zep.net 04-APR-19 05-APR-19 9153 MAIN STREET AUSTIN TX 78710 3 1 0401140733 2 22

1015 1020 FALAH KENNETH P.O. BOX 335 TRENTON NJ 08607 NE Kfalah@sat.net 04-APR-19 557 GLITTER ST. TRENTON NJ 08606 2 1 3437212490 1 19.95

1016 1003 SMITH LEILA P.O. BOX 66 TALLAHASSEE FL 32306 SE 04-APR-19 9901 SEMINOLE WAY TALLAHASSEE FL 32307 2 1 2491748320 1 85.45

1017 1015 SCHELL STEVE P.O. BOX 677 MIAMI FL 33111 SE sschell3@sat.net 04-APR-19 05-APR-19 887 HOT ASPHALT ST MIAMI FL 33112 3 1 8117949391 2 8.95

1018 1001 MORALES BONITA P.O. BOX 651 EASTPOINT FL 32328 SE bm225@sat.net 05-APR-19 95812 HIGHWAY 98 EASTPOINT FL 32328 1 3437212490 1 19.95

1018 1001 MORALES BONITA P.O. BOX 651 EASTPOINT FL 32328 SE bm225@sat.net 05-APR-19 95812 HIGHWAY 98 EASTPOINT FL 32328 2 8843172113 1 55.95

1019 1018 MONTIASA GREG 1008 GRAND AVENUE MACON GA 31206 SE greg336@sat.net 05-APR-19 1008 GRAND AVENUE MACON GA 31206 2 1 0401140733 1 22

1020 1008 JONES KENNETH P.O. BOX 137 CHEYENNE WY 82003 N kenask@sat.net 05-APR-19 195 JAMISON LANE CHEYENNE WY 82003 2 1 3437212490 1 19.95

32 rows selected.

**Problem J**

**CODE:**

SELECT LASTNAME || ', '|| FIRSTNAME AS "Customer's Name", ORDER#, SUM(QUANTITY\*PAIDEACH)

FROM FULL\_ORDERS

GROUP BY ORDER#, LASTNAME, FIRSTNAME

ORDER BY ORDER#

**OUTPUT:**

Customer's Name ORDER# SUM(QUANTITY\*PAIDEACH)

---------------------- ---------- ----------------------

GIRARD, CINDY 1000 19.95

LUCAS, JAKE 1001 117.4

MCGOVERN, REESE 1002 111.9

MORALES, BONITA 1003 106.85

FALAH, KENNETH 1004 170.9

MONTIASA, GREG 1005 39.95

SMITH, LEILA 1006 54.5

GIANA, TAMMY 1007 335.85

PIERSON, THOMAS 1008 39.9

GIRARD, CINDY 1009 41.95

SMITH, JENNIFER 1010 55.95

Customer's Name ORDER# SUM(QUANTITY\*PAIDEACH)

---------------------- ---------- ----------------------

LUCAS, JAKE 1011 85.45

NELSON, BECCA 1012 166.4

LEE, JASMINE 1013 55.95

GIANA, TAMMY 1014 44

FALAH, KENNETH 1015 19.95

SMITH, LEILA 1016 85.45

SCHELL, STEVE 1017 17.9

MORALES, BONITA 1018 75.9

MONTIASA, GREG 1019 22

JONES, KENNETH 1020 19.95

21 rows selected.