

Kosta Nikopoulos

Database Assignment 1

1)

The screenshot shows the Oracle SQL Developer interface. The left pane displays the 'Connections' tree with 'xe-kosta' selected. The main workspace shows a SQL script in the 'Worksheet' tab. The script contains a comment '--Kosta Nikopoulos' and a query to find all customers who do not have initials. The query is:
--1) Find all customers who does not have initials.
Select *
FROM customer
WHERE
cus_initial IS NULL
ORDER BY cus_code DESC;
The 'Query Result' pane shows the results of the query, with 2 rows fetched in 0.008 seconds. The results are as follows:

	CUS_CODE	CUS_UNAME	CUS_FNAME	CUS_INITIAL	CUS_AREACODE	CUS_PHONE	CUS_BALANCE
1	10017	Williams	George	(null)	615	290-2556	768.93
2	10014	Orlando	Myron	(null)	615	222-1672	0

2)

The screenshot shows the Oracle SQL Developer interface. The left pane displays the 'Connections' tree with 'xe-kosta' selected. The main workspace shows a SQL script in the 'Worksheet' tab. The script contains a comment '--Kosta Nikopoulos' and a query to find all vendors whose phone number's area code is 615. The query is:
--1) Find all customers who does not have initials.
/*Select *
FROM customer
WHERE
cus_initial IS NULL
ORDER BY cus_code DESC;
*/
--2) Find all vendors whose phone number's area code is 615.
SELECT
v_code, v_name, w_areacode As "Area-Code", v_phone
FROM vendor
WHERE
v_areacode = '615';
The 'Query Result' pane shows the results of the query, with 6 rows fetched in 0.005 seconds. The results are as follows:

	V_CODE	V_NAME	Area-Code	V_PHONE
1	21225	Bryson, Inc.	615	223-3234
2	21231	DE Supply	615	220-3245
3	21344	Gomez Bros.	615	889-2546
4	24004	Brackman Bros.	615	222-1410
5	24205	OROVA, Inc.	615	890-1234
6	25501	Dana1 Supplies	615	890-3529

3)

The screenshot shows the Oracle SQL Developer interface. The left pane displays the 'Connections' tree with 'xe-kosta' selected. The main workspace shows a SQL script in the 'Worksheet' tab. The script contains a comment '--Kosta Nikopoulos' and a query to find all products with a price greater than 100. The query is:
--3) How many products with price > 100?
SELECT
p_code, p_descript, p_price As "Price", v_code
FROM product
WHERE p_price > 100;
The 'Query Result' pane shows the results of the query, with 4 rows fetched in 0.004 seconds. The results are as follows:

	P_CODE	P_DESCRIPT	Price	V_CODE
1	11QER/31	Power painter, 15 psi., 3-nozzle	109.99	25595
2	2232/QT	BD jigsaw, 12-in. blade	109.92	24288
3	89-WRE-Q	Hicut chain saw, 16 in.	256.99	24288
4	WR3/IT3	Steel matting, 4'x8'x1/6", .5" mesh	119.95	25595

4)

Connections: Oracle Connections, kosta2, xe-kosta

Tables (Filtered): CUSTOMER, INVOICE, LINE, PRODUCT, VENDOR

Views, Indexes, Packages, Procedures, Functions, Operators, Queues, Queues Tables, Triggers, Types

SQL Worksheet: History

Worksheet: Query Builder

```
--4) Find the line price of the product whose code is 23109-HB
SELECT
  p_code As "Product Code", inv_number, line_units, line_price
FROM line
WHERE p_code = '23109-HB';
```

Query Result: All Rows Fetched: 3 in 0.008 seconds

	Product Code	INV_NUMBER	LINE_UNITS	LINE_PRICE
1	23109-HB	1001	1	9.95
2	23109-HB	1006	1	9.95
3	23109-HB	1008	1	9.95

5)

Connections: Oracle Connections, kosta2, xe-kosta

Tables (Filtered): CUSTOMER, INVOICE, LINE, PRODUCT, VENDOR

Views, Indexes, Packages, Procedures, Functions, Operators, Queues, Queues Tables, Triggers, Types, Sequences, Materialized Views, Materialized View Logs, Synonyms, Public Synonyms, Database Links, Public Database Links, Directories, Editions, Java, XML Schemas, XML DB Repository, OLAP Option

SQL Worksheet: History

Worksheet: Query Builder

```
--5) List the number of products each vendor provides.
SELECT
  p.p_code, p.p_qoh, v.v_code
FROM product p, vendor v
WHERE p.v_code = v.v_code;
```

Query Result: All Rows Fetched: 14 in 0.004 seconds

	P_CODE	P_QOH	V_CODE
1	11QER/31	8	25595
2	13-Q2/P2	32	21344
3	14-Q1/L3	10	21344
4	1546-Q02	15	23119
5	1558-QW1	23	23119
6	2232/QTY	8	24288
7	2232/QWE	6	24288
8	2238/QFD	12	25595
9	23109-HB	23	21225
10	54778-2T	43	21344
11	89-WRE-Q	11	24288
12	SM-10277	172	21225
13	SW-23116	237	21231
14	WR3/TT3	10	25595

6)

Connections: Oracle Connections, kosta2, xe-kosta

Tables (Filtered): CUSTOMER, INVOICE, LINE, PRODUCT, VENDOR

Views, Indexes, Packages, Procedures, Functions, Operators, Queues, Queues Tables, Triggers, Types, Sequences, Materialized Views, Materialized View Logs, Synonyms, Public Synonyms, Database Links, Public Database Links, Directories, Editions, Java, XML Schemas, XML DB Repository, OLAP Option

SQL Worksheet: History

Worksheet: Query Builder

```
--6) Count the number of products that do not have a vendor assigned
SELECT COUNT(*)
FROM product
WHERE v_code IS NULL;
```

Query Result: All Rows Fetched: 1 in 0.002 seconds

	COUNT(*)
1	2

7)

The screenshot shows the SQL Developer interface. The left pane displays the database schema for 'xe-kosta', including tables like CUSTOMER, INVOICE, LINE, and PRODUCT. The main window shows a SQL worksheet with the following query:

```
--7) List information about products whose vendor code is either 24288 or 25443.
SELECT
  p_code, p_descript, p_discount, p_price, v_code AS "Vendor Code"
FROM product
WHERE
  v_code = '24288'
  OR v_code = '25443';
```

The query result is displayed in a table with 5 columns: P_CODE, P_DESCRIPTION, P_DISCOUNT, P_PRICE, and Vendor Code. It shows 3 rows of data.

P_CODE	P_DESCRIPTION	P_DISCOUNT	P_PRICE	Vendor Code
1 2232/QTJ BD jigsaw, 12-in. blade		0.05	109.92	24288
2 2232/QWE BD jigsaw, 8-in. blade		0.05	99.87	24288
3 89-WRE-Q Hicut chain saw, 16 in.		0.05	256.99	24288

8)

The screenshot shows the SQL Developer interface. The left pane displays the database schema for 'xe-kosta'. The main window shows a SQL worksheet with the following query:

```
--8) List the products whose stock date was later than 01-MAR-12.
SELECT
  p_code, p_descript, p_price, p_indate AS "Date"
FROM product
WHERE p_indate > '01-MAR-12';
```

The query result is displayed in a table with 4 columns: P_CODE, P_DESCRIPTION, P_PRICE, and Date. It shows 16 rows of data.

P_CODE	P_DESCRIPTION	P_PRICE	Date
1 11QER/31 Power painter, 15 psi., 3-nozzle		109.99	11-11-03
2 13-Q2/P2 7.25-in. pwr. saw blade		14.99	11-12-13
3 14-Q1/L3 9.00-in. pwr. saw blade		17.49	11-11-13
4 1546-QQ2 Hrd. cloth, 1/4-in., 2x50		39.95	12-01-15
5 1558-QW1 Hrd. cloth, 1/2-in., 3x50		43.99	12-01-15
6 2232/QTJ BD jigsaw, 12-in. blade		109.92	11-12-30
7 2232/QWE BD jigsaw, 8-in. blade		99.87	11-12-24
8 2238/QPD BD cordless drill, 1/2-in.		38.95	12-01-20
9 23109-HB Claw hammer		9.95	12-01-20
10 23114-AA Sledge hammer, 12 lb.		14.4	12-01-02
11 54778-2T Rat-tail file, 1/8-in. fine		4.99	11-12-15
12 89-WRE-Q Hicut chain saw, 16 in.		256.99	12-02-07
13 PVC23DR1 PVC pipe, 3.5-in., 8-ft		5.87	12-02-20
14 SW-18277 1.25-in. metal screw, 25		6.99	12-03-01
15 SW-23116 2.5-in. wd. screw, 50		0.45	12-02-24
16 WR3/113 Steel matting, 4'x8'x1/8", .5" mesh		119.95	12-01-17

9)

The screenshot shows the SQL Developer interface. The left pane displays the database schema for 'xe-kosta'. The main window shows a SQL worksheet with the following query:

```
--9) How many invoices were generated for each customer?
SELECT cus_code, COUNT(inv_number)
FROM invoice
GROUP BY inv_number, cus_code
HAVING COUNT(inv_number) > 0;
```

The query result is displayed in a table with 2 columns: CUS_CODE and COUNT(INV_NUMBER). It shows 8 rows of data.

CUS_CODE	COUNT(INV_NUMBER)
1 10015	1
2 10014	1
3 10011	1
4 10011	1
5 10011	1
6 10018	1
7 10012	1
8 10014	1

10)

The screenshot shows the SQL Developer interface. On the left, the 'Connections' pane shows 'xe-kosta' selected. The 'Tables (Filtered)' pane shows a tree view of tables including CUSTOMER, INVOICE, LINE, PRODUCT, and VENDOR. The main window displays a query in the 'Query Builder' tab. The query is as follows:

```
--10) List all information about customers whose first name does not start with A or K.
SELECT
c.cus_fname, c.cus_initial, i.cus_code, l.inv_number, p.p_code, v.v_code
FROM customer c, invoice i, line l, product p, vendor v
WHERE c.cus_code = i.cus_code
AND i.inv_number = l.inv_number
AND l.p_code = p.p_code
AND p.v_code = v.v_code
AND c.cus_fname NOT LIKE 'A%'
AND c.cus_fname NOT LIKE 'K%';
```

The 'Query Result' pane shows the results of the query, with 14 rows fetched in 0.009 seconds. The results are as follows:

	CUS_FNAME	CUS_INITIAL	CUS_CODE	INV_NUMBER	P_CODE	V_CODE
1	Myron	(null)	10014	1001 13-Q2/P2	21344	
2	Nathy	W	10012	1003 13-Q2/P2	21344	
3	Amy	B	10015	1007 13-Q2/P2	21344	
4	Nathy	W	10012	1003 1546-QQ2	23119	
5	Myron	(null)	10014	1006 2232/QTY	24288	
6	Nathy	W	10012	1003 2238/QPD	25595	
7	Myron	(null)	10014	1001 23109-HB	21225	
8	Myron	(null)	10014	1006 23109-HB	21225	
9	Leona	K	10011	1008 23109-HB	21225	
10	Leona	K	10011	1002 54778-2T	21344	
11	Amy	B	10015	1007 54778-2T	21344	
12	Myron	(null)	10014	1006 89-WRE-Q	24288	
13	Myron	(null)	10014	1006 SM-18277	21225	
14	Leona	K	10011	1008 WR3/TT3	25595	

11)

The screenshot shows the SQL Developer interface. On the left, the 'Connections' pane shows 'xe-kosta' selected. The 'Tables (Filtered)' pane shows a tree view of tables including CUSTOMER, INVOICE, LINE, PRODUCT, and VENDOR. The main window displays a query in the 'Query Builder' tab. The query is as follows:

```
--11) What products have a price that exceeds the min product price?
SELECT
*
FROM product
WHERE
p_price > (SELECT MIN(p_price) FROM product);
```

The 'Query Result' pane shows the results of the query, with 15 rows fetched in 0.002 seconds. The results are as follows:

	P_CODE	P_DESCRIPT	P_INDATE	P_QOH	P_MIN	P_PRICE	P_DISCOUNT	V_CODE
1	11QER/31	Power painter, 15 psi., 3-nozzle	11-11-03	8	5	109.99	0	25595
2	13-Q2/P2	7.25-in. pwr. saw blade	11-12-13	32	15	14.99	0.05	21344
3	14-Q1/L3	9.00-in. pwr. saw blade	11-11-13	18	12	17.49	0	21344
4	1546-QQ2	Hrd. cloth, 1/4-in., 2x50	12-01-15	15	8	39.95	0	23119
5	1558-QW1	Hrd. cloth, 1/2-in., 3x50	12-01-15	23	5	43.99	0	23119
6	2232/QTY	BD jigsaw, 12-in. blade	11-12-30	8	5	109.92	0.05	24288
7	2232/QWE	BD jigsaw, 8-in. blade	11-12-24	6	5	99.87	0.05	24288
8	2238/QPD	BD cordless drill, 1/2-in.	12-01-20	12	5	38.95	0.05	25595
9	23109-HB	Claw hammer	12-01-20	23	10	9.95	0.1	21225
10	23114-AA	Sledge hammer, 12 lb.	12-01-02	8	5	14.4	0.05	(null)
11	89-WRE-Q	Hicut chain saw, 16 in.	12-02-07	11	5	256.99	0.05	24288
12	PVC23DRT	PVC pipe, 3.5-in., 8-ft	12-02-20	188	75	5.87	0	(null)
13	SM-18277	1.25-in. metal screw, 25	12-03-01	172	75	6.99	0	21225
14	SW-23116	2.5-in. wd. screw, 50	12-02-24	237	100	8.45	0	21231
15	WR3/TT3	Steel matting, 4"x8"x1/6", .5" mesh	12-01-17	18	5	119.95	0.1	25595

12)

The screenshot shows the SQL Developer interface. On the left, the 'Connections' pane shows 'Orade Connections' with 'kosta2' and 'xe-kosta'. Under 'xe-kosta', the 'Tables (Filtered)' list includes CUSTOMER, INVOICE, LINE, PRODUCT, and VENDOR. The 'Worksheet' tab is active, showing a query:

```
--12) How much is the average customer balance?
SELECT AVG(cus_balance) " Customer Balance"
FROM customer;
```

The 'Query Result' pane shows the result:

Customer Balance
208.928

13)

The screenshot shows the SQL Developer interface. On the left, the 'Connections' pane shows 'Orade Connections' with 'kosta2' and 'xe-kosta'. Under 'xe-kosta', the 'Tables (Filtered)' list includes CUSTOMER, INVOICE, LINE, PRODUCT, and VENDOR. The 'Worksheet' tab is active, showing a query:

```
--13) What product(s) have a price equal to the average product price?
SELECT
FROM product
WHERE
p_price = (SELECT AVG(p_price) FROM product);
```

The 'Query Result' pane shows the result:

P_CODE	P_DESCRIPT	P_INDATE	P_QOH	P_MIN	P_PRICE	P_DISCO...	V_CODE
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14)

The screenshot shows the SQL Developer interface. On the left, the 'Connections' pane shows 'Orade Connections' with 'kosta2' and 'xe-kosta'. Under 'xe-kosta', the 'Tables (Filtered)' list includes CUSTOMER, INVOICE, LINE, PRODUCT, and VENDOR. The 'Worksheet' tab is active, showing a query:

```
--14) What product(s) have the lowest inventory value? Use the following formula to calculate the inventory value: P_QOH * P_PRICE.
SELECT
MIN(SUM(p_qoh * p_price))
FROM product
GROUP BY v_code;
```

The 'Query Result' pane shows the result:

MIN(SUM(P_QOH*P_PRICE))
1009.07

15)

The screenshot displays the Oracle SQL Developer environment. On the left, the 'Connections' pane shows a tree view of the database schema, including tables like CUSTOMER, INVOICE, LINE, PRODUCT, and VENDOR. The main workspace is divided into two panes: 'Worksheet' and 'Query Builder'. The 'Worksheet' pane contains the following SQL query:

```
--15) List all invoice data for customers whose codes are 10015 and 1008.
SELECT c.cus_fname, i.cus_code, i.inv_number, p.p_code, v.v_code
FROM customer c, invoice i, line l, product p, vendor v
WHERE c.cus_code = i.cus_code
AND i.inv_number = l.inv_number
AND l.p_code = p.p_code
AND p.v_code = v.v_code
AND i.cus_code = '10015'
AND i.inv_number = '1008';
```

Below the query, the 'Query Result' pane shows the execution status: 'All Rows Fetched: 0 in 0.003 seconds'. The result is displayed in a table with the following columns: CUS_FNAME, CUS_CODE, INV_NUM..., P_CODE, and V_CODE.