Network Design for Faculty of Computing

DML1

Group YGz

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PART 1

1) CREATE TABLE inventory_list(

 id VARCHAR (12),

 cost NUMBER (2,1),

units NUMBER (3)

 );


INSERT INTO inventory_list (id, cost, units)

VALUES ('a212', 2.5, 100);

INSERT INTO inventory_list (id, cost, units)

VALUES ('a153', 7.99, 250);

INSERT INTO inventory_list (id, cost, units)

VALUES ('a345', 5.24, 87);

INSERT INTO inventory_list (id, cost, units)

VALUES ('a142', 8.95, 65);

INSERT INTO inventory_list (id, cost, units)

VALUES ('a424', 7.46, 8);

| ID | COST | UNITS |
|------|------|-------|
| a212 | 2.5 | 100 |
| a153 | 8 | 250 |
| a345 | 5.2 | 87 |
| a142 | 9 | 65 |
| a424 | 7.5 | 8 |

CREATE TABLE items

(

itm_number VARCHAR(15),

name VARCHAR(40),

description VARCHAR(45),

category VARCHAR(15),

color VARCHAR(23),

"Size" VARCHAR(1),

ilt_id VARCHAR(15)

);

INSERT INTO items (itm_number, name, description, category, color, "Size", ilt_id ) VALUES('im01101047', 'game top', 'team shirt with emblem', 'clothing', 'range', 'm', 'il010230127');

INSERT INTO items (itm_number, name, description, category, ilt_id ) VALUES('im01101048', 'premium bat', 'high quaity basball bat', 'equipment', 'il010230128');

| ITM_NUMBER | NAME | DESCRIPTION | CATEGORY | COLOR | Size | ILT_ID |
|------------|------|-------------|----------|-------|------|--------|
| a123 | gloves | catcher mitt | clothing | brown | m | il010230124 |
| a542 | shirt | top worn under the game top | clothing | white | s | il010230125 |
| a524 | socks | team socks with emblem | clothing | range | l | il010230126 |
| a099 | top | team shirt with emblem | clothing | range | m | il010230127 |
| a001 | bat | high quaity basball bat | equipment | - | - | il010230128 |

CREATE TABLE price_history

(

start_date DATE,

start_time TIMESTAMP,

price NUMBER(5,2),

end_date DATE,

end_time TIMESTAMP,

itm_number VARCHAR(15)

);

INSERT INTO price_history (start_date, start_time, price, itm_number) VALUES(TO_DATE('17-Jun-2017', 'DD-MM-YYYY'), TO_DATE('17-Jun-2016 09:00:00', 'DD-MM-YYYY hh24:mi:ss'), 4.99, 'im01101044');

INSERT INTO price_history (start_date, start_time, price, end_date, end_time, itm_number) VALUES(TO_DATE('25-Nov-2016', 'DD-MM-YYYY'), TO_DATE('25-Nov-2016 09:00:00', 'DD-MM-YYYY hh24:mi:ss'), 14.99, TO_DATE('25-Jan-2017', 'DD-MM-YYYY'), TO_DATE('25-Jan-2017 17:00:00', 'DD-MM-YYYY hh24:mi:ss'),'im01101045');

INSERT INTO price_history (start_date, start_time, price, end_date, end_time, itm_number) VALUES(TO_DATE('25-Jan-2017', 'DD-MM-YYYY'), TO_DATE('25-Jan-2017 17:01:00', 'DD-MM-YYYY hh24:mi:ss'), 8.99, TO_DATE('25-Jan-2017', 'DD-MM-YYYY'), TO_DATE('25-Jan-2017 19:00:00', 'DD-MM-YYYY hh24:mi:ss'),'im01101045');

INSERT INTO price_history (start_date, start_time, price, itm_number) VALUES(TO_DATE('26-Jan-2017', 'DD-MM-YYYY'), TO_DATE('26-Jan-2017 09:00:00', 'DD-MM-YYYY hh24:mi:ss'), 15.99, 'im01101045');

INSERT INTO price_history (start_date, start_time, price, itm_number) VALUES(TO_DATE('12-Feb-2017', 'DD-MM-YYYY'), TO_DATE('12-Feb-2017 12:30:00', 'DD-MM-YYYY hh24:mi:ss'), 7.99, 'im01101046');

INSERT INTO price_history (start_date, start_time, price, itm_number) VALUES(TO_DATE('25-Apr-2017', 'DD-MM-YYYY'), TO_DATE('25-Apr-2017 10:10:10', 'DD-MM-YYYY hh24:mi:ss'), 24.99, 'im01101047');

INSERT INTO price_history (start_date, start_time, price, itm_number) VALUES(TO_DATE('31-May-2017', 'DD-MM-YYYY'), TO_DATE('31-May-2017 16:35:30', 'DD-MM-YYYY hh24:mi:ss'), 149.00, 'im01101048');

| START_DATE | START_TIME | PRICE | END_DATE | END_TIME | ITM_NUMBER |
|---|---|---|---|---|---|
| 17-JUN-17 | 17-JUN-16 09.00.00.000000 AM | 4.99 | - | - | im01101044 |
| 25-NOV-16 | 25-NOV-16 09.00.00.000000 AM | 14.99 | 25-JAN-17 | 25-JAN-17 05.00.00.000000 PM | im01101045 |
| 25-JAN-17 | 25-JAN-17 05.01.00.000000 PM | 8.99 | 25-JAN-17 | 25-JAN-17 07.00.00.000000 PM | im01101045 |
| 26-JAN-17 | 26-JAN-17 09.00.00.000000 AM | 15.99 | - | - | im01101045 |
| 12-FEB-17 | 12-FEB-17 12.30.00.000000 PM | 7.99 | - | - | im01101046 |
| 25-APR-17 | 25-APR-17 10.10.10.000000 AM | 24.99 | - | - | im01101047 |
| 31-MAY-17 | 31-MAY-17 04.35.30.000000 PM | 149 | - | - | im01101048 |

CREATE TABLE sales_representatives

(

id VARCHAR(10),

email VARCHAR(55),

first_name VARCHAR(50),

last_name VARCHAR(50),

```
phone_number VARCHAR(15),

commission_rate NUMBER(5,2),

supervisor_id VARCHAR(10)

);


INSERT INTO sales_representatives (id, email, first_name, last_name, phone_number,
commission_rate, supervisor_id)

VALUES('sr01', 'chray@obl.com', 'Charles', 'Raymond', '0134598761', 10, 'sr01');

INSERT INTO sales_representatives (id, email, first_name, last_name, phone_number,
commission_rate, supervisor_id)

VALUES('sr02', 'vwright@obl.com', 'Victoria', 'Wright', '0134598762', 5, 'sr01');

INSERT INTO sales_representatives (id, email, first_name, last_name, phone_number,
commission_rate, supervisor_id)

VALUES('sr03', 'bspeed@obl.com', 'Barry', 'Speed', '0134598763', 5, 'sr01');
```

| ID | EMAIL | FIRST_NAME | LAST_NAME | PHONE_NUMBER | COMMISSION_RATE | SUPERVISOR_ID |
|----|-------|------------|-----------|--------------|-----------------|---------------|
| sr01 | chray@obl.com | Charles | Raymond | 0134598761 | 10 | sr01 |
| sr02 | vwright@obl.com | Victoria | Wright | 0134598762 | 5 | sr01 |
| sr03 | bspeed@obl.com | Barry | Speed | 0134598763 | 5 | sr01 |

```
CREATE TABLE sales_rep_addresses

(

id VARCHAR(10),

address_line_1 VARCHAR(55),

address_line_2 VARCHAR(55),

city VARCHAR(50),

zip_code VARCHAR(10)

);

INSERT INTO sales_rep_addresses (id, address_line_1, address_line_2, city, zip_code )
VALUES('sr01', '12 Cherry Lane', 'Denton', 'Detroit', 'DT48211');

INSERT INTO sales_rep_addresses (id, address_line_1, address_line_2, city, zip_code )
VALUES('sr02', '87 Blossom Hill', 'Uptown', 'Detroit', 'DT52314');

INSERT INTO sales_rep_addresses (id, address_line_1, address_line_2, city, zip_code )
VALUES('sr03', '12 Junction Row', 'Skinflats', 'Detroit', 'DT52564');
```

| ID | ADDRESS_LINE_1 | ADDRESS_LINE_2 | CITY | ZIP_CODE |
|------|-----------------|-----------------|---------|----------|
| sr01 | 12 Cherry Lane | Denton | Detroit | DT48211 |
| sr02 | 87 Blossom Hill | Uptown | Detroit | DT52314 |
| sr03 | 12 Junction Row | Skinflats | Detroit | DT52564 |

CREATE TABLE teams

(

id VARCHAR(10) ,

name VARCHAR(255),

number_of_players NUMBER(2),

discount NUMBER(2)

);

INSERT INTO teams (id, name, number_of_players, discount)

VALUES('t001', 'Rockets', 25, 10);

INSERT INTO teams (id, name, number_of_players, discount)

VALUES('t002', 'Celtics', 42, 20);

INSERT INTO teams (id, name, number_of_players, discount)

VALUES('t003', 'Rovers', 8, null);

| ID | NAME | NUMBER_OF_PLAYERS | DISCOUNT |
|------|---------|-------------------|----------|
| t001 | Rockets | 25 | 10 |
| t002 | Celtics | 42 | 20 |
| t003 | Rovers | 8 | - |

CREATE TABLE customers

(

ctr_number VARCHAR(10),

email VARCHAR(55),

first_name VARCHAR(50),

last_name VARCHAR(50),

phone_number VARCHAR(15),

current_balance NUMBER(10, 2),

sre_id VARCHAR(10),

tem_id VARCHAR(10),

loyalty_card_number VARCHAR(10)

);

INSERT INTO customers (ctr_number, email, first_name, last_name, phone_number, current_balance, sre_id, tem_id, loyalty_card_number)

VALUES('c00001', 'bob.thornberry@heatmail.com', 'Robert', 'Thornberry', '01234567898', 150.00, 'sr01', 't001', null);

INSERT INTO customers (ctr_number, email, first_name, last_name, phone_number, current_balance, loyalty_card_number)

VALUES('c00012', 'Jjones@freemail.com', 'Jennifer', 'Jones', '01505214598', 0.00, 'lc1015');
INSERT INTO customers (ctr_number, email, first_name, last_name, phone_number, current_balance, sre_id, tem_id)

VALUES('c00101', 'unknown@here.com', 'John', 'Doe', '03216547808', 987.50, 'sr01', 't002');
INSERT INTO customers (ctr_number, email, first_name, last_name, phone_number, current_balance, loyalty_card_number)

VALUES('c00103', 'MurciaA@globaltech.com', 'Andrew', 'Murcia', '07715246890', 85.00, 'lc2341');

INSERT INTO customers (ctr_number, email, first_name, last_name, phone_number, current_balance, sre_id, tem_id)

VALUES('c01986', 'margal87@delphiview.com', 'Maria', 'Galant', '01442736589', 125.65 , 'sr03', 't003');

| CTR_NUMBER | EMAIL | FIRST_NAME | LAST_NAME | PHONE_NUMBER | CURRENT_BALANCE | SRE_ID | TEM_ID | LOYALTY_CARD_NUMBER |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| c00001 | bob.thornberry@heatmail.com | Robert | Thornberry | 01234567898 | 150 | sr01 | t001 | - |
| c00012 | Jjones@freemail.com | Jennifer | Jones | 01505214598 | 0 | - | - | lc1015 |
| c00101 | unknown@here.com | John | Doe | 03216547808 | 987.5 | sr01 | t002 | - |
| c00103 | MurciaA@globaltech.com | Andrew | Murcia | 07715246890 | 85 | - | - | lc2341 |
| c01986 | margal87@delphiview.com | Maria | Galant | 01442736589 | 125.65 | sr03 | t003 | - |

```
CREATE TABLE customers_addresses

(

id VARCHAR(10),

address_line_1 VARCHAR(255),

address_line_2 VARCHAR(255),

city VARCHAR(50),

zip_code VARCHAR(10),

ctr_number VARCHAR(10)

);
```

INSERT INTO customers_addresses (id, address_line_1, address_line_2, city, zip_code, ctr_number)

VALUES('ca0101', '83 Barrhill Drive', null, 'Liverpool', 'LP79HJK', 'c00001');

INSERT INTO customers_addresses (id, address_line_1, address_line_2, city, zip_code, ctr_number)

VALUES('ca0102', '17 Gartsquare Road', 'Starford', 'Liverpool', 'LP89JHK', 'c00001');

INSERT INTO customers_addresses (id, address_line_1, address_line_2, city, zip_code, ctr_number)

VALUES('ca0103', '54 Ropehill Crescent', 'Georgetown', 'Star', 'ST45AGV', 'c00101');

INSERT INTO customers_addresses (id, address_line_1, address_line_2, city, zip_code, ctr_number)

VALUES('ca0104', '36 Watercress Lane', null, 'Jump', 'JP23YTH', 'c01986');

INSERT INTO customers_addresses (id, address_line_1, address_line_2, city, zip_code, ctr_number)

VALUES('ca0105', '63 Acacia Drive', 'Skins', 'Liverpool', 'LP83JHR', 'c00001');

| ID | ADDRESS_LINE_1 | ADDRESS_LINE_2 | CITY | ZIP_CODE | CTR_NUMBER |
|--------|----------------------|----------------|-----------|----------|------------|
| ca0101 | 83 Barrhill Drive | - | Liverpool | LP79HJK | c00001 |
| ca0102 | 17 Gartsquare Road | Starford | Liverpool | LP89JHK | c00001 |
| ca0103 | 54 Ropehill Crescent | Georgetown | Star | ST45AGV | c00101 |
| ca0104 | 36 Watercress Lane | - | Jump | JP23YTH | c01986 |
| ca0105 | 63 Acacia Drive | Skins | Liverpool | LP83JHR | c00001 |

CREATE TABLE orders

(

id VARCHAR(20),

odr_date DATE,

odr_time TIMESTAMP,

number_of_units NUMBER(2),

ctr_number VARCHAR(10)

);

INSERT INTO orders (id, odr_date, odr_time, number_of_units, ctr_number) VALUES('or0101350', TO_DATE('24-May-2017', 'DD-MM-YYYY'), TO_DATE('24-May-2017 10:30:35 ', 'DD-MM-YYYY hh24:mi:ss'), 5, 'c00001');

INSERT INTO orders (id, odr_date, odr_time, number_of_units, ctr_number) VALUES('or0101425', TO_DATE('28-May-2017', 'DD-MM-YYYY'), TO_DATE('28-May-2017 12:30:00 ', 'DD-MM-YYYY hh24:mi:ss'), 18, 'c00103');

INSERT INTO orders (id, odr_date, odr_time, number_of_units, ctr_number) VALUES('or0101681', TO_DATE('02-Jun-2017', 'DD-MM-YYYY'), TO_DATE('02-Jun-2017 14:55:30 ', 'DD-MM-YYYY hh24:mi:ss'), 10, 'c00001');

INSERT INTO orders (id, odr_date, odr_time, number_of_units, ctr_number) VALUES('or0101750', TO_DATE('18-Jun-2017', 'DD-MM-YYYY'), TO_DATE('18-Jun-2017 09:05:00 ', 'DD-MM-YYYY hh24:mi:ss'), 1, 'c01986');

| ID | ODR_DATE | ODR_TIME | NUMBER_OF_UNITS | CTR_NUMBER |
|---|---|---|---|---|
| or0101350 | 24-MAY-17 | 24-MAY-17 10.30.35.000000 AM | 5 | c00001 |
| or0101425 | 28-MAY-17 | 28-MAY-17 12.30.00.000000 PM | 18 | c00103 |
| or0101681 | 02-JUN-17 | 02-JUN-17 02.55.30.000000 PM | 10 | c00001 |
| or0101750 | 18-JUN-17 | 18-JUN-17 09.05.00.000000 AM | 1 | c01986 |

CREATE TABLE ordered_items

(

quantity_ordered NUMBER(2),

quantity_shipped NUMBER(2),

odr_id VARCHAR(20), itm_number VARCHAR(20)

);

INSERT INTO ordered_items (quantity_ordered, quantity_shipped, odr_id, itm_number)
VALUES(5, 5, 'or0101250', 'im01101044');

INSERT INTO ordered_items (quantity_ordered, quantity_shipped, odr_id, itm_number)
VALUES(5, 5, 'or0101250', 'im01101046');

INSERT INTO ordered_items (quantity_ordered, quantity_shipped, odr_id, itm_number)
VALUES(5, 5, 'or0101350', 'im01101044');

INSERT INTO ordered_items (quantity_ordered, quantity_shipped, odr_id, itm_number)
VALUES(18, 18, 'or0101425', 'im01101047');

INSERT INTO ordered_items (quantity_ordered, quantity_shipped, odr_id, itm_number)
VALUES(10, 10, 'or0101681', 'im01101047');

INSERT INTO ordered_items (quantity_ordered, quantity_shipped, odr_id, itm_number)
VALUES(1, 1, 'or0101750', 'im01101048');

| QUANTITY_ORDERED | QUANTITY_SHIPPED | ODR_ID | ITM_NUMBER |
| --- | --- | --- | --- |
| 5 | 5 | or0101250 | im01101044 |
| 5 | 5 | or0101250 | im01101046 |
| 5 | 5 | or0101350 | im01101044 |
| 18 | 18 | or0101425 | im01101047 |
| 10 | 10 | or0101681 | im01101047 |
| 1 | 1 | or0101750 | im01101048 |

2)

1. INSERT INTO teams (id, name, number_of_players, discount)

VALUES('t004', 'Jets', 10, 5);

| ID | NAME | NUMBER_OF_PLAYERS | DISCOUNT |
| --- | --- | --- | --- |
| t001 | Rockets | 25 | 10 |
| t002 | Celtics | 42 | 20 |
| t003 | Rovers | 8 | - |
| t004 | Jets | 10 | 5 |

2. INSERT INTO customers (ctr_number, email, first_name, last_name, phone_number, current_balance, sre_id, tem_id, loyalty_card_number)

VALUES('c02001', 'brianrog@hootech.com', 'Brian', 'Rogers', 01654564898, -5, null, null, 'lc4587');

| CTR_NUMBER | EMAIL | FIRST_NAME | LAST_NAME | PHONE_NUMBER | CURRENT_BALANCE | SRE_ID | TEM_ID | LOYALTY_CARD_NUMBER |
|---|---|---|---|---|---|---|---|---|
| c02001 | brianrog@hootech.com | Brian | Rogers | 1654564898 | -5 | - | - | lc4587 |
| c00001 | bob.thornberry@heatmail.com | Robert | Thornberry | 01234567898 | 150 | sr01 | t001 | - |
| c00012 | Jjones@freemail.com | Jennifer | Jones | 01505214598 | 0 | - | - | lc1015 |
| c00101 | unknown@here.com | John | Doe | 03216547808 | 987.5 | sr01 | t002 | - |
| c00103 | MurciaA@globaltech.com | Andrew | Murcia | 07715246890 | 85 | - | - | lc2341 |
| c01986 | margal87@delphiview.com | Maria | Galant | 01442736589 | 125.65 | sr03 | t003 | - |

3. UPDATE customers

SET current_balance = 50

WHERE current_balance = -5;

| CTR_NUMBER | EMAIL | FIRST_NAME | LAST_NAME | PHONE_NUMBER | CURRENT_BALANCE | SRE_ID | TEM_ID | LOYALTY_CARD_NUMBER |
|---|---|---|---|---|---|---|---|---|
| c02001 | brianrog@hootech.com | Brian | Rogers | 1654564898 | 50 | - | - | lc4587 |
| c00001 | bob.thornberry@heatmail.com | Robert | Thornberry | 01234567898 | 150 | sr01 | t001 | - |
| c00012 | Jjones@freemail.com | Jennifer | Jones | 01505214598 | 0 | - | - | lc1015 |
| c00101 | unknown@here.com | John | Doe | 03216547808 | 987.5 | sr01 | t002 | - |
| c00103 | MurciaA@globaltech.com | Andrew | Murcia | 07715246890 | 85 | - | - | lc2341 |
| c01986 | margal87@delphiview.com | Maria | Galant | 01442736589 | 125.65 | sr03 | t003 | - |

Part 2

1)

Updating rows to the system

1.

| START_DATE | TO_CHAR(START_TIME,'HH24:MI:SS') | PRICE | END_DATE | TO_CHAR(END_TIME,'HH24:MI') |
|---|---|---|---|---|
| 17-JUN-17 | 09:00:00 | 4.99 | - | - |
| 25-NOV-16 | 09:00:00 | 14.99 | 25-JAN-17 | 17:00 |
| 25-JAN-17 | 17:01:00 | 8.99 | 25-JAN-17 | 19:00 |
| 26-JAN-17 | 09:00:00 | 15.99 | - | - |
| 12-FEB-17 | 12:30:00 | 7.99 | - | - |
| 25-APR-17 | 10:10:10 | 24.99 | - | - |
| 31-MAY-17 | 16:35:30 | 149 | - | - |

2.

UPDATE price_history

SET end_date = SYSDATE, end_time = SYSTIMESTAMP

WHERE itm_number = 'im01101048' AND end_time is null;

3.

| START_DATE | START_TIME | PRICE | END_DATE | END_TIME | ITM_NUMBER |
|---|---|---|---|---|---|
| 17-JUN-17 | 17-JUN-16 09.00.00.000000 AM | 4.99 | - | - | im01101044 |
| 25-NOV-16 | 25-NOV-16 09.00.00.000000 AM | 14.99 | 25-JAN-17 | 25-JAN-17 05.00.00.000000 PM | im01101045 |
| 25-JAN-17 | 25-JAN-17 05.01.00.000000 PM | 8.99 | 25-JAN-17 | 25-JAN-17 07.00.00.000000 PM | im01101045 |
| 26-JAN-17 | 26-JAN-17 09.00.00.000000 AM | 15.99 | - | - | im01101045 |
| 12-FEB-17 | 12-FEB-17 12.30.00.000000 PM | 7.99 | - | - | im01101046 |
| 25-APR-17 | 25-APR-17 10.10.10.000000 AM | 24.99 | - | - | im01101047 |
| 31-MAY-17 | 31-MAY-17 04.35.30.000000 PM | 149 | 16-DEC-23 | 16-DEC-23 05.41.06.362559 PM | im01101048 |

4.

INSERT INTO price_history (start_date, start_time, price, itm_number)

VALUES(SYSDATE, SYSTIMESTAMP, 99.99, 'im01101048')

| START_DATE | START_TIME | PRICE | END_DATE | END_TIME | ITM_NUMBER |
|---|---|---|---|---|---|
| 17-JUN-17 | 17-JUN-16 09.00.00.000000 AM | 4.99 | - | - | im01101044 |
| 25-NOV-16 | 25-NOV-16 09.00.00.000000 AM | 14.99 | 25-JAN-17 | 25-JAN-17 05.00.00.000000 PM | im01101045 |
| 25-JAN-17 | 25-JAN-17 05.01.00.000000 PM | 8.99 | 25-JAN-17 | 25-JAN-17 07.00.00.000000 PM | im01101045 |
| 26-JAN-17 | 26-JAN-17 09.00.00.000000 AM | 15.99 | - | - | im01101045 |
| 16-DEC-23 | 16-DEC-23 05.42.49.979494 PM | 99.99 | - | - | im01101048 |
| 12-FEB-17 | 12-FEB-17 12.30.00.000000 PM | 7.99 | - | - | im01101046 |
| 25-APR-17 | 25-APR-17 10.10.10.000000 AM | 24.99 | - | - | im01101047 |
| 31-MAY-17 | 31-MAY-17 04.35.30.000000 PM | 149 | 16-DEC-23 | 16-DEC-23 05.41.06.362559 PM | im01101048 |

2)

Deleting rows from the system

1.

DELETE FROM customers_addresses

WHERE address_line_1 = '83 Barrhill Drive';

2.

| ID | ADDRESS_LINE_1 | ADDRESS_LINE_2 | CITY | ZIP_CODE | CTR_NUMBER |
|---|---|---|---|---|---|
| ca0102 | 17 Gartsquare Road | Starford | Liverpool | LP89JHK | c00001 |
| ca0103 | 54 Ropehill Crescent | Georgetown | Star | ST45AGV | c00101 |
| ca0104 | 36 Watercress Lane | - | Jump | JP23YTH | c01986 |
| ca0105 | 63 Acacia Drive | Skins | Liverpool | LP83JHR | c00001 |