# **DBS 211 Midterm Test**

# **Total marks: 40**

# **Name: Filipe da Cunha de Freitas**

# **Student #:155737190**

# **Oracle UserID:** **dbs211\_203c09**

# 

# **REQUIRED TABLES AND DATA**

**STAFF (DATA)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| EMPID | FIRSTNAME | LASTNAME | CITY | PHONE | MAXCUST | STARTDATE | ACTIVE |
| 1003 | Mary | Smith | Toronto | 4166662112 | 10 | Jan 10, 2020 | 1 |
| 1004 | John | Hunt | Ottawa | 9503452323 | 6 | Apr 3, 2019 | 1 |
| 1005 | Martin | Hap | London | 3664045775 | 4 | Sept 26, 2019 | 1 |

**CUSTOMER (DATA)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CUSTID | EMPID | CUSTNAME | EMAIL | ADDRESS |
| 1000 | 1003 | George Wish | gwashington@email.ca | 3200 Mt Vernon Hwy |
| 1010 | 1003 | John Adams | jadams@email.ca | 1250 Hancock St |
| 1020 | 1004 | Thomas Andrew | tjefferson@email.ca | 931 Thomas Jefferson Pkwy |
| 1030 | 1004 | James Madison | jmadison@email.ca | 11350 Constitution Hwy |
| 1040 | 1004 | James Monroe | jmonroe@email.ca | 2050 James Monroe Parkway |
| 1050 | 1005 | Maria Stone | maria@email.ca | 110 Keele St |

**STAFF TABLE SPECIFICATIONS**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Column | Type | Length | Precision | Default | PK | Required | Range |
| EMPID | Numeric | 4 |  |  | Y | Y |  |
| FIRSTNAME | String | 25 |  |  |  | Y |  |
| LASTNAME | String | 25 |  |  |  | Y |  |
| CITY | String | 20 |  |  |  | Y |  |
| PHONE | Number | 10 digits |  |  |  | Y |  |
| MAXCUST | Numeric | 2 digits | 0 | 0 |  | Y |  |
| STARTDATE | Date |  |  |  |  | Y |  |
| ACTIVE | Numeric | 1 | 0 | 1 |  | Y |  |

1. Write the SQL statement to create the “STAFF” table as described in the STAFF TABLE SPECIFICATIONS.**(8 Marks)**

CREATE TABLE STAFF(

EMPID number(4) primary key not null

, FIRSTNAME varchar(25) not null

, LASTNAME varchar(25) not null

, CITY varchar(20) not null

, PHONE number(10) not null

, MAXCUST number(2, 0) DEFAULT 0 not null

, STARTDATE date not null

, ACTIVE number(1, 0) DEFAULT 1 not null

, CONSTRAINT PHONE\_ck CHECK (PHONE like '[0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9]'));

1. Pretend that the CUSTOMER table has already been created.  Write an SQL statement to add an appropriate Foreign Key between the customer table and the staff table. **(4 Marks)**

ALTER TABLE CUSTOMER

ADD CONSTRAINT empid\_fk FOREIGN KEY (EMPID) REFERENCES staff(EMPID);

1. Write an SQL Statement to insert yourself as a new customer.  You may choose who your employee representative will be and use your Seneca email address. **(4 Marks)**

SET TRANSACTION READ WRITE;

INSERT ALL

INTO customer VALUES (1060, 1003, 'Filipe Freitas', 'fda-cunha-de-freitas@myseneca.ca', '14 Martiniano de Carvalho')

SELECT \* FROM dual;

SELECT \* FROM customer;

1. Congratulations, Mary Smith just got married.  Write an SQL statement to change Mary Smith's last name to Jones. **(3 Marks)**

UPDATE staff SET lastname = 'Jones'

WHERE EMPID = 1003;

1. Write an SQL statement to create a view that when executed will produce the following results **EXACTLY**. **(8 Marks)**

|  |  |  |
| --- | --- | --- |
| Customer | Representative | Address |
| George Wish | Mary Smith | 3200 Mt Vernon Hwy |
| John Adams | Mary Smith | 1250 Hancock St |
| Thomas Andrew | John Hunt | 931 Thomas Jefferson Pkwy |
| James Madison | John Hunt | 11350 Constitution Hwy |
| James Monroe | John Hunt | 2050 James Monroe Parkway |
| Maria Stone | Martin Hap | 1. keele St |

CREATE VIEW vwCustomers AS

SELECT c.custname as ”Customer”

, s.firstName || ' ' || s.lastName as “Representative”

, c.address as “Address”

\* FROM customer c LEFT JOIN staff s ON c.EMPID = s.EMPID;

ORDER BY c.custid;

1. What would the output from the following statement be: **(3 Marks)**  
    SELECT empid, firstname || ' ' || lastname AS "empName", phone  
    FROM staff  
    ORDER BY lastname;  
   ALL boxes require an answer ( Use X if should be blank ).

Header Row empid, empName, phone  
Row 1 1005 Martin Hap 3664045775   
Row 2 1004 John Hunt 9503452323  
Row 3 1003 Mary Jones 4166662112

Note that I am taking into account the update made in question 4, in which empid 1003 had its last name updated from Smith to Jones.

1. What would the output from the following statement be: **(3 Marks)**  
    SELECT empid, TO\_CHAR(startdate, 'Mon. dd, yyyy') AS startDt, active  
    FROM staff  
    WHERE maxcust > 5  
    ORDER BY startDt;  
   ALL boxes require an answer ( Use X if should be blank ).

Header Row empid startDt active  
Row 1 1004 Apr. 03, 2019 1  
Row 2 1003 Jan. 10, 2020 1  
Row 3 X X X

1. What would the output from the following statement be: **(4 Marks)**  
    SELECT custid AS CustomerNo, LastName, s.empid AS Rep  
    FROM staff s, customer c  
    WHERE (c.empid = 1005 OR c.empid = 1003) AND s.empid = c.empid  
    ORDER BY LastName;  
   ALL boxes require an answer ( Use X if should be blank ).

Header Row CustomerNo LastName Rep  
Row 1 1050 Hap 1005  
Row 2 1000 Jones 1003  
Row 3 1010 Jones 1003  
Row 4 X X X

Row 5 X X X

Once again, note that I am taking into account the update made in question 4, in which empid 1003 had its last name updated from Smith to Jones.

9. Write a **SQL** command to FIRE Martin Hap (i.e. he no longer works for the company). **(2 Marks)**

UPDATE staff SET active = 0

WHERE EMPID = 1005;

10. Write a SQL command to remove the **CUSTOMER** table from the database. **(1 Mark)**

DROP VIEW vwCustomers;

DROP TABLE customer;

I am assuming the view creating in the question 5 is still available.

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