# **DBS 211 Midterm Test**

# **Total marks: 40**

# **Name: Davinder Verma**

# **Student #: 121802201**

# **Oracle UserID: dbs211\_203c33**

# 

# **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 numeric(4) PRIMARY KEY,**

**firstname string(25) NOT NULL,**

**lastname string(25) NOT NULL,**

**city string(20) NOT NULL,**

**phone int(10) NOT NULL,**

**maxcust decimal(0) DEFAULT ‘0’,**

**startdate date NOT NULL,**

**active decimal(0) DEFAULT ‘1’**

**);**

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 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)**

**INSERT INTO customer**

**Values (0007, 1004, Davinder Verma,** [**dverma22@myseneca.ca**](mailto:dverma22@myseneca.ca)**, 470 sentinel road);**

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 firstname = Mary;**

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 customers AS**

**SELECT c.custname AS Customer, coalesce(s.firstname || ‘ ’ || s.lastname) AS Representative, c.address AS Address**

**FROM s.staff, c.customer;**

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] [John Hunt] [9503452323]  
Row 2 [1004] [Martin Hap] [3664045775]  
Row 3 [1003] [Mary Jones] [4166662112]

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 3, 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] [Smith] [1003]  
Row 3 [1010] [Smith] [1003]  
Row 4 [X] [X] [X]  
Row 5 [X] [X] [X]

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

**DELETE FROM staff WHERE empid = 1005;**

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

**DROP TABLE customer**

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