ACIT 1630
Relational Database Design and SQL

Lab Exercise
Lesson 10

For each question, write the SQL statements required to generate the required results using the **pubs** database.

1. List the distinct store ids and order number from the sales table where the order is greater than or equal to January 1, 1994.  The query should produce the result set listed below.

```
stor_id      ord_num
---------    -------------------
6380         6871
6380         722a
7066         QA7442.3
7067         D4482
7131         N914008
7131         N914014
8042         423LL922
8042         423LL930

(8 row(s) affected)
```

```sql
select stor_id, ord_num
    from sales
    where (ord_date >= '1994-01-01')
```

2. List all employees with job id equals to 5 or 10, and job level is greater than 170.

```
emp_id       fname             lname                    job_id   job_lvl
---------    ---------------   ----------------------   ------   -------
CFH28514M    Carlos            Hernadez                 5        211
JYL26161F    Janine            Labrune                  5        172
LAL21447M    Laurence          Lebihan                  5        175
RBM23061F    Rita              Muller                   5        198
MJP25939M    Maria             Pontes                   5        246

(5 row(s) affected)
```

```sql
select emp_id, fname, lname, job_id, job_lvl
    from employee
    where (job_id = '5' or job_id = '10') and (job_lvl > 170)
```

3. List all employees with job id equals to 5, or 10 and job level is greater than 170.

```
emp_id       fname             lname                    job_id   job_lvl
---------    ---------------   ----------------------   ------   -------
PXH22250M    Paul              Henriot                  5        159
CFH28514M    Carlos            Hernadez                 5        211
```

1

| | | | | |
|---|---|---|---|---|
| JYL26161F | Janine | Labrune | 5 | 172 |
| LAL21447M | Laurence | Lebihan | 5 | 175 |
| RBM23061F | Rita | Muller | 5 | 198 |
| SKO22412M | Sven | Ottlieb | 5 | 150 |
| MJP25939M | Maria | Pontes | 5 | 246 |

(7 row(s) affected)

```sql
select emp_id, fname, lname, job_id, job_lvl
    from employee
    where (job_id = '5' or job_id = '10' and (job_lvl > 170))
```

4.  Which discount types do not apply to any store?

```
discounttype
------------------
Initial Customer
Volume Discount
```

(2 row(s) affected)

```sql
select discounttype
from discounts
where (stor_id  is null)
```

5.  List the authors who have their phone numbers with the 415 area code.  Order the list in ascending order of the last name.

```
au_lname                                au_fname              phone
--------------------------------------- -------------------- ------------
Bennet                                  Abraham              415 658-9932
Carson                                  Cheryl               415 548-7723
Dull                                    Ann                  415 836-7128
Green                                   Marjorie             415 986-7020
Hunter                                  Sheryl               415 836-7128
Karsen                                  Livia                415 534-9219
Locksley                                Charlene             415 585-4620
MacFeather                              Stearns              415 354-7128
Straight                                Dean                 415 834-2919
Stringer                                Dirk                 415 843-2991
Yokomoto                                Akiko                415 935-4228
```

(11 row(s) affected)

```sql
select au_fname, au_lname, phone
from authors
where (SUBSTRING(phone, 1, 3) = '415')
order by au_lname
```

6.  List the name, city, and state from the authors table where the state is KS or UT.  Format the name of the author as the first letter of first name followed by a space followed by the last name.  Format the city as the city followed by a comma followed by a space followed by the state. Order the result set by the name.  The query should produce the result set listed below.

```
name                    city
-----------------       -----------------------
A Ringer                Salt Lake City, UT
A Ringer                Salt Lake City, UT
M Smith                 Lawrence, KS

(3 row(s) affected)
```

```sql
select concat(SUBSTRING(au_fname, 1, 1), ' ', au_lname) as name,
CONCAT(city,', ', state) as city
from authors
where (state = 'KS') or (state = 'UT')
order by name
```

7. List the title id, royalty, publishing date, and notes from the titles table where the price is greater than or equal to **$15.00**, and the year to date sales is greater than or equal to **4000**. Display only the **first 30** characters of the notes. Place the symbol **'%'** after each royalty amount in the result set. Display the publisher date in the format of **DD-MM-YYYY**. Order the result set by the title. The query should produce the result set listed below.

```
title_id    royalty   pubdate          notes
----------  --------  ---------------  ------------------------------
PC1035      16%       30-06-1991       A survey of software for the n
PS3333      10%       12-06-1991       What happens when the data run
PC8888      10%       12-06-1994       Muckraking reporting on the wo
BU7832      10%       22-06-1991       Annotated analysis of what com
BU1032      10%       12-06-1991       An overview of available datab

(5 row(s) affected)
```

```sql
select title_id, concat(royalty, '%') as 'royalty',
convert(varchar(10), pubdate, 105) as 'pubdate', substring(notes, 1, 30) as
'notes'
from titles
where (price >= '15.00') and (ytd_sales >= 4000)
order by title_id
```

8. List the first name, last name, and hire date from the employee table for employees with a hire year of **1993**. Format the name as the last name followed by a comma followed by a space followed by the first name. Display the hire date in the format of **MON DD YYYY**. Order the result set by the name of the employee. The query should produce the result set listed below.

```
name                                  hire_date
------------------------------------  ------------
Domingues, Anabela                    Jan 27 1993
Henriot, Paul                         Aug 19 1993
Ibsen, Palle                          May  9 1993
Koskitalo, Pirkko                     Nov 29 1993
Muller, Rita                          Oct  9 1993
Nagy, Helvetius                       Mar 19 1993
Saveley, Mary                         Jun 29 1993
```

3

(7 row(s) affected)

```sql
select CONCAT(lname,', ', fname) as 'name',
convert(varchar(12), hire_date, 109) as 'hire_date'
from employee
where (SUBSTRING(CONVERT(varchar(12), hire_date, 112), 1, 4) = '1993')
```

9. List the title id, title, price, and calculated new price from the titles table where the type is **business or psychology**. To calculate the new price, multiply **3%** to the current price. The query should produce the result set listed below.

| title_id | title | price | new_price |
| --- | --- | --- | --- |
| BU1032 | The Busy Executive's Database Guide | 19.99 | 20.590000 |
| BU1111 | Cooking with Computers: Surreptitious Balance Sheets | 11.95 | 12.310000 |
| BU2075 | You Can Combat Computer Stress! | 2.99 | 3.080000 |
| BU7832 | Straight Talk About Computers | 19.99 | 20.590000 |
| PS1372 | Computer Phobic AND Non-Phobic Individuals: Behavior Variations | 21.59 | 22.240000 |
| PS2091 | Is Anger the Enemy? | 10.95 | 11.280000 |
| PS2106 | Life Without Fear | 7.00 | 7.210000 |
| PS3333 | Prolonged Data Deprivation: Four Case Studies | 19.99 | 20.590000 |
| PS7777 | Emotional Security: A New Algorithm | 7.99 | 8.230000 |

(9 row(s) affected)

```sql
select title_id, title, price, round((price * 1.03), 2) as new_price
from titles
where (type = 'business' or type = 'psychology')
```

10. List all employees that have been with the company more than 25 years. Create the output as follows with the same column names. (The years will be different in your output!)

| Name | Years with Company |
| --- | --- |
| Helen Bennett | 26 |
| Philip Cramer | 26 |
| Carlos Hernadez | 26 |
| Yoshi Latimer | 26 |
| Patricia McKenna | 26 |
| Timothy O'Rourke | 27 |
| Manuel Pereira | 26 |
| Maria Pontes | 26 |
| Margaret Smith | 27 |
| Howard Snyder | 27 |
| Gary Thomas | 27 |

(11 row(s) affected)

```sql
select CONCAT(fname, ' ', lname) as name,
2022 - SUBSTRING(CONVERT(varchar(12), hire_date, 112), 1, 4) as years
from employee
where (hire_date <= getdate())
order by years
```