HW8 Write-up

Part 1

1(a): Find total area of each country

```
+---------+------------+
| Country | Total Area |
+---------+------------+
| CAN     |  79074.130 |
| FRA     |  43415.160 |
| GER     |  48787.000 |
| GUA     |  32526.130 |
| MEX     |  10021.130 |
| USA     | 532221.130 |
+---------+------------+
6 rows in set (0.00 sec)
```

1(b): Find the GDP, inflation, and total population of each country

```
+--------------+----------------+----------------+------------------+
| Country Name | GDP            | Inflation Rate | Total Population |
+--------------+----------------+----------------+------------------+
| CAN          |  1643407000.98 |           4.10 |           221950 |
| FRA          | 28321700000.00 |           1.80 |          5486046 |
| GER          |  4238800000.17 |           1.40 |          4579053 |
| GUA          |    77604632.17 |           3.67 |            18515 |
| MEX          |     1076130.32 |           6.00 |           800115 |
| USA          |   209036600.00 |           3.40 |          1072762 |
+--------------+----------------+----------------+------------------+
6 rows in set (0.01 sec)
```

1(c): Find the GDP, inflation, and total population of all provinces with a population over 10,000 persons

```
+---------+-----------------+-----------+------------------+
| Country | Province        | Area      | Total Population |
+---------+-----------------+-----------+------------------+
| FRA     | Aunis           |  1497.160 |            12456 |
| GER     | Berlin          |   892.000 |          3664088 |
| GER     | Brandenburg     | 29479.000 |           260469 |
| CAN     | British-Columbia|  2879.970 |           117400 |
| USA     | Delaware        |  5133.360 |           355000 |
| GUA     | Escuintla       |  2784.970 |            13900 |
| FRA     | Ile-de-France   | 12012.000 |          4989067 |
| MEX     | Jalisco         |  2479.970 |           355000 |
| CAN     | Manitoba        | 51333.360 |            11900 |
| FRA     | Normandy        | 29906.000 |           484523 |
+---------+-----------------+-----------+------------------+
16 rows in set (0.00 sec)
```

1(d): Find all countries ordered by number of cities

```
+--------------+---------------+---------------------------+
| Country Code | Country Name  | Number of cities in country |
+--------------+---------------+---------------------------+
| USA          | UNITED STATES |                        10 |
| CAN          | CANADA        |                         9 |
| FRA          | FRANCE        |                         9 |
| GUA          | GUATEMALA     |                         9 |
| MEX          | MEXICO        |                         9 |
| GER          | GERMANY       |                         7 |
+--------------+---------------+---------------------------+
6 rows in set (0.00 sec)
```

1(e): Find country name, GDP, area, and number of cities for countries with an area smaller than 10000 and a GDP larger than 1600000000.00, ordered by the number of cities in the country, descending

```
+--------------+--------------+-------------+-----------+--------------------------+
| Country Code | Country Name | GDP         | Area      | Number of cities in country |
+--------------+--------------+-------------+-----------+--------------------------+
| GUA          | GUATEMALA    | 77604632.17 | 97578.390 |                        9 |
| MEX          | MEXICO       | 1076130.32  | 30063.390 |                        9 |
+--------------+--------------+-------------+-----------+--------------------------+
```

2 rows in set (0.00 sec)

1(f): Find countries with the most number of cities (w/ ties)

```
+-------------------------------------+----------+
| Country/s | # Cities |
+-------------------------------------+----------+
| USA                                 |       10 |
+-------------------------------------+----------+
```

1 row in set (0.00 sec)

Part 2

2(a): Find total number of films by category, descending

```
+-------------+------------------+
| Category    | Number of Movies |
+-------------+------------------+
| Sports      |            74 |
| Foreign     |            73 |
| Family      |            69 |
| Documentary |            68 |
| Animation   |            66 |
| Action      |            64 |
| New         |            63 |
| Drama       |            62 |
| Games       |            61 |
```

```
| Sci-Fi      |          61 |
+-------------+-------------+
```

16 rows in set (0.00 sec)

2(b): Find names of customers that have rented >= 4 PG rated films that cost 2.99, organized by number of films rented, descending

```
+------------+-----------+-------------------------------+
| First name | Last name | Number of $2.99 PG Films Rented |
+------------+-----------+-------------------------------+
| AUDREY     | RAY       |                             6 |
| DEREK      | BLAKELY   |                             5 |
| LESLIE     | SEWARD    |                             5 |
| RUSSELL    | BRINSON   |                             5 |
| OLGA       | JIMENEZ   |                             5 |
| VERONICA   | STONE     |                             4 |
| JOEL       | FRANCISCO |                             4 |
| STEVE      | MACKENZIE |                             4 |
| JENNY      | CASTRO    |                             4 |
| CINDY      | FISHER    |                             4 |
+------------+-----------+-------------------------------+
```

420 rows in set (0.00 sec)

2(c): Find all G rated movies that have been rented for the largest amount of money

```
+--------------------+------------------------+
| Film title         | Crazy High Rental Price |
+--------------------+------------------------+
| MIDSUMMER GROUNDHOG |                  11.99 |
| TRAP GUYS          |                  11.99 |
+--------------------+------------------------+
```

2 rows in set (0.00 sec)

2(d): Find film category with most number of PG-13 films

```
+----------+-------------------------+
| Category | Number of PG Rated Films |
+----------+-------------------------+
| Family   |                     18 |
+----------+-------------------------+
```

1 row in set (0.00 sec)

2(e): Find all G rated films that have been rented at a higher than average amount

```
+----------------+-------------------+
| Title          | Number of rentals |
+----------------+-------------------+
| TIMBERLAND SKY |                31 |
+----------------+-------------------+
```

1 row in set (0.00 sec)

2(f): Find actors/actresses that have never acted in a G rated film

```
+------------+-----------+
| First Name | Last Name |
+------------+-----------+
| MERYL      | ALLEN     |
+------------+-----------+
```

1 row in set (0.00 sec)

2(g): Find the films that every store carries

```
+------------------+
| Film Title       |
+------------------+
| ACADEMY DINOSAUR |
```

| AFFAIR PREJUDICE |

| AGENT TRUMAN |

| AIRPLANE SIERRA |

| ALABAMA DEVIL |

| ALADDIN CALENDAR |

| ALAMO VIDEOTAPE |

| ALASKA PHANTOM |

| ALIEN CENTER |

| ALLEY EVOLUTION |

+------------------+

563 rows in set (0.00 sec)

2(h): Find the percentage of G rated movies each actor has acted in

+------------+-----------+------------+

| First name | Last name | Percentage |

+------------+-----------+------------+

| PENELOPE | GUINESS | 0.9760 |

| BOB | FAWCETT | 2.4400 |

| NICK | WAHLBERG | 1.9520 |

| JODIE | DEGENERES | 1.9520 |

| GARY | PHOENIX | 1.9520 |

| KIRSTEN | PALTROW | 1.3943 |

| JIM | MOSTEL | 1.9520 |

| FAY | KILMER | 2.4400 |

| CHRISTIAN | GABLE | 1.0844 |

| ALEC | WAYNE | 1.2200 |

+------------+-----------+------------+

997 rows in set (0.00 sec)

2(i): Find all film titles that have no actors

```
+----------------------+
| Title with no actors |
+----------------------+
| DRUMLINE CYCLONE     |
| FLIGHT LIES          |
| SLACKER LIAISONS     |
+----------------------+
3 rows in set (0.00 sec)
```

2(f): Find all film titles that are in a store's inventory, but haven't been rented

```
+----------------------------------------------+
| Title's in inventory that haven't been rented |
+----------------------------------------------+
| ACADEMY DINOSAUR                             |
+----------------------------------------------+
1 row in set (0.00 sec)
```

2(h): Find number of actors that acted in each film

```
+---------+------------------+
| Film ID | Number of Actors |
+---------+------------------+
|    1 |          10 |
|    2 |           4 |
|    3 |           5 |
|    4 |           5 |
|    5 |           5 |
|    6 |           7 |
|    7 |           5 |
|    8 |           4 |
|    9 |           9 |
```

```
|      10 |           8 |

+---------+------------------+
```

1000 rows in set (0.00 sec)

Part 3

I ran this code using Python on my Ada server

RESULTS:

1, Action

2, Animation

3, Children

4, Classics

5, Comedy

6, Documentary

7, Drama

8, Family

9, Foreign

10, Games

11, Horror

12, Music

13, New

14, Sci-Fi

15, Sports

16, Travel