Project Phase 3

Team-12

By Dhaval Wagela (Student ID:-1001769786) and Pranav Medhi (Student ID:-1001756326)

This is the output.doc file that contains screenshot of the output of the English description+ SQL queries.

---

1. Show the apartments in Arlington, TX with is located near a grocery store

Query:
select * from apartments where apt_id IN (select apt_id from apartment_nearby_places where city LIKE 'Arlington' AND places LIKE 'GROCERY_STORE');

```
mysql> select * from apartments where apt_id IN (select apt_id from apartment_nearby_places where city LIKE 'Arlington' AND places LIKE 'GROCERY_STORE');
+---------+------+--------+---------------+----------+----------------+-----------+--------+
| Apt_Id  | Area | Cost   | No_of_Bedrooms | Floor_No | Street         | City      | Apt_No |
+---------+------+--------+---------------+----------+----------------+-----------+--------+
| 1009APT | 2000 | 100030 |             3 |        2 | 214 Prairie Rd. | Arlington |    201 |
+---------+------+--------+---------------+----------+----------------+-----------+--------+
1 row in set (0.00 sec)
```

---

2. Show the top 5 agents with the highest amount of experience. */

Query:
select e.Employee_id, e.Fname, e.Lname, e.Email_id, a.SSN, a.Years_of_Experience, a.No_of_Sales from Employee as e INNER JOIN Agent as a on a.employee_id = e.Employee_id order by a.Years_of_Experience desc LIMIT 5;

```
mysql> select e.Employee_id, e.Fname, e.Lname, e.Email_id, a.SSN, a.Years_of_Experience, a.No_of_Sales from Employee as e INNER JOIN Agent as a on a.employee_id = e.Employee_id
 order by a.Years_of_Experience desc LIMIT 5;
+-------------+---------+---------+--------------------------+-----------+-------------------+-------------+
| Employee_id | Fname   | Lname   | Email_id                 | SSN       | Years_of_Experience | No_of_Sales |
+-------------+---------+---------+--------------------------+-----------+-------------------+-------------+
| 100029      | Doug    | George  | doug.george@example.com  | 100000048 |                11 |          70 |
| 100030      | Chester | Pearson | chester.pearson@example.com | 100000049 |                10 |          49 |
| 100032      | Floyd   | Williams | floyd.williams@example.com | 100000051 |                 9 |          68 |
| 100026      | Mike    | Parker  | mike.parker@example.com  | 100000045 |                 8 |          52 |
| 100028      | Drake   | Brown   | drake.brown@example.com  | 100000047 |                 8 |          32 |
+-------------+---------+---------+--------------------------+-----------+-------------------+-------------+
5 rows in set (0.00 sec)
```

---

3. Show the total number of apartments near play school

Query:
select COUNT(Apt_Id) as Apartments_Near_Playschool from APARTMENT_NEARBY_PLACES group by places having places LIKE 'PLAY_SCHOOL';

```
mysql> select COUNT(Apt_Id) as Apartments_Near_Playschool from APARTMENT_NEARBY_PLACES group by places having places LIKE 'PLAY_SCHOOL';
+--------------------------+
| Apartments_Near_Playschool |
+--------------------------+
|                        5 |
+--------------------------+
1 row in set (0.00 sec)
```

---

4. Show all the branches where more than two employees work in ascending order of number of employees

Queries:
create view No_of_Employees as select COUNT(employee_id) as No_of_Employees , Branch_Id from works_at group by branch_id having COUNT(employee_id) > 2 order by COUNT(employee_id);

select B.Branch_Id, B.Street, B.Contact_no, B.City, B.State, N.No_of_Employees from Branch as B INNER JOIN No_of_Employees as N on B.branch_Id=N.branch_Id order by N.No_of_Employees asc ;

```
mysql> select B.Branch_Id, B.Street, B.Contact_no, B.City, B.State, N.No_of_Employees from Branch as B INNER JOIN No_of_Employees as N on B.branch_Id=N.branch_Id order by N.No_of_Employees asc;
+-----------+-----------------+------------+---------+------------+-----------------+
| Branch_Id | Street          | Contact_no | City    | State      | No_of_Employees |
+-----------+-----------------+------------+---------+------------+-----------------+
| 1004      | 732 Lamboil St  | 6732321121 | Brooklyn | New York   |               3 |
| 1002      | 218 N Cherry Ave | 6732899233 | Seattle  | Washington |               4 |
+-----------+-----------------+------------+---------+------------+-----------------+
```

---

5. Show Sellers whose apartment has an architecture type of Japanese and facilities such as gym.

Query:
select U.SSN, U.FName, U.LName, U.Contact_no, S.Max_Price, S.Min_Price, S.Fixed_Price, S.Rent_Cost, S.Apt_Id, S.Lease_Duration from user as U INNER JOIN Seller as S on U.SSN = S.SSSN AND S.Apt_Id IN (select apt_id from facilities where GYM LIKE 'Y' AND apt_id IN(select apt_id from interiors where Architecture_type LIKE 'Japanese'));

```
mysql> select U.SSN, U.FName, U.LName, U.Contact_no, S.Max_Price, S.Min_Price, S.Fixed_Price, S.Rent_Cost, S.Apt_Id, S.Lease_Duration from user as U INNER JOIN Seller as S on U
.SSN = S.SSSN AND S.Apt_Id IN (select apt_id from facilities where GYM LIKE 'Y' AND apt_id IN( select apt_id from interiors where Architecture_type LIKE 'Japanese'));
+-----------+-------+---------+-----------+-----------+-----------+-------------+-----------+---------+----------------+
| SSN       | FName | LName   | Contact_no | Max_Price | Min_Price | Fixed_Price | Rent_Cost | Apt_Id  | Lease_Duration |
+-----------+-------+---------+-----------+-----------+-----------+-------------+-----------+---------+----------------+
| 100000005 | Harvey | Erickson | 6211200005 |      NULL |      NULL |      100000 |      1500 | 1001APT | 6              |
| 100000007 | Chris  | Robinson | 6211200007 |    300000 |     10000 |        NULL |      2000 | 1003APT | 3              |
| 100000010 | Ben    | Bush     | 6211200010 |      NULL |      NULL |      120000 |      1800 | 1005APT | 6              |
| 100000012 | Jack   | Bracken  | 6211200012 |      NULL |      NULL |       40000 |       800 | 1007APT | 3              |
+-----------+-------+---------+-----------+-----------+-----------+-------------+-----------+---------+----------------+
4 rows in set (0.00 sec)
```

---

6. Show apartments with a height of the ceiling of 8 feet.

Query:
select * from apartments where apt_id IN (select apt_id from interiors where ceiling_height = 8);

```
mysql> select * from apartments where apt_id IN (select apt_id from interiors where ceiling_height = 8);
+---------+------+--------+----------------+----------+-----------------+--------+--------+
| Apt_Id  | Area | Cost   | No_of_Bedrooms | Floor_No | Street          | City   | Apt_No |
+---------+------+--------+----------------+----------+-----------------+--------+--------+
| 1001APT | 1200 | 100000 |              2 |        2 | 5982 Sit Ave    | Dallas |    202 |
| 1005APT | 2000 | 120000 |              3 |        1 | 321 Acacia Lane | Dallas |    102 |
+---------+------+--------+----------------+----------+-----------------+--------+--------+
2 rows in set (0.00 sec)
```

---

7. Show me the Names of All the Customer Service Officers that have joined the branch in year 1997.

Query:
select FName, LName from employee where YEAR(Joining_Date) = 1997 AND SSN IN (select SSN from customer_service_officer);

```
mysql> select FName, LName from employee where YEAR(Joining_Date) = 1997 AND SSN IN (select SSN from customer_service_officer);
+----------+--------+
| FName    | LName  |
+----------+--------+
| Christian | Miller |
| Jarred    | Parker |
+----------+--------+
2 rows in set (0.00 sec)
```

---

8. Show the Contact number of the Branch whose BranchID is 1000.

Query:
select * from branch where branch_id = 1000;

```
mysql> select * from branch where branch_id = 1000;
+------------+------------------+------------+--------+-------+
| Branch_Id | Street           | Contact_no | City   | State |
+------------+------------------+------------+--------+-------+
| 1000       | 321 Acacia Lane | 6732899283 | Dallas | Texas |
+------------+------------------+------------+--------+-------+
1 row in set (0.00 sec)
```

---

9. Show all the employees who have the same first names with respect to any other employee and display them in alphabetical order of their first names.

Query:
select * from employee where fname IN (select fname from employee group by fname having count(fname) > 1) order by fname;

```
mysql> select * from employee where fname IN (select fname from employee group by fname having count(fname) > 1) order by fname;
+-----------+-------------+---------+----------+--------------+-----------------------------+------+---------------+
| SSN       | Employee_Id | FName   | LName    | Joining_Date | Email_Id                    | Sex  | Date_Of_Birth |
+-----------+-------------+---------+----------+--------------+-----------------------------+------+---------------+
| 100000023 | 100004      | Cameron | Geller   | 1998-01-11   | cameron.geller@example.com  | M    | 1977-09-26    |
| 100000046 | 100027      | Cameron | Turner   | 2015-09-09   | cameron.turner@example.com  | M    | 1985-10-03    |
| 100000026 | 100007      | Chester | Smith    | 1997-09-09   | chester.smith@example.com   | M    | 1977-09-29    |
| 100000049 | 100030      | Chester | Pearson  | 2009-09-09   | chester.pearson@example.com | M    | 1981-11-03    |
| 100000020 | 100001      | Collin  | Jones    | 1999-10-10   | collin.jones@example.com    | M    | 1977-09-23    |
| 100000043 | 100024      | Collin  | Stewart  | 2012-09-09   | collin.stewart@example.com  | M    | 1982-01-03    |
| 100000025 | 100006      | Doug    | Miller   | 1997-09-09   | doug.miller@example.com     | M    | 1977-09-28    |
| 100000048 | 100029      | Doug    | George   | 2008-09-09   | doug.george@example.com     | M    | 1982-11-07    |
| 100000024 | 100005      | Drake   | Morgan   | 1998-09-09   | drake.morgan@example.com    | M    | 1977-09-27    |
| 100000047 | 100028      | Drake   | Brown    | 2011-09-09   | drake.brown@example.com     | M    | 1983-11-08    |
| 100000050 | 100031      | Emily   | Lee      | 2016-09-09   | emily.lee@example.com       | F    | 1990-01-04    |
| 100000027 | 100008      | Emily   | Scott    | 1997-09-09   | emily.scott@example.com     | F    | 1977-09-30    |
| 100000051 | 100032      | Floyd   | Williams | 2010-09-09   | floyd.williams@example.com  | M    | 1988-01-03    |
| 100000028 | 100009      | Floyd   | Lewis    | 1997-09-09   | floyd.lewis@example.com     | M    | 1977-09-30    |
| 100000053 | 100034      | Freeman | Lynn     | 2008-09-09   | freeman.lynn@example.com    | M    | 1988-01-03    |
| 100000030 | 100011      | Freeman | Hughes   | 1998-09-09   | freeman.hughes@example.com  | M    | 1977-09-16    |
| 100000039 | 100020      | John    | Williams | 2008-09-09   | john.williams@example.com   | M    | 1987-07-13    |
| 100000000 | 100000      | John    | Wright   | 1998-09-09   | john.wright@example.com     | M    | 1977-09-22    |
| 100000044 | 100025      | Mark    | Miller   | 2013-09-09   | mark.miller@example.com     | M    | 1983-07-03    |
| 100000021 | 100002      | Mark    | Bishop   | 1998-11-11   | mark.bishop@example.com     | M    | 1977-09-24    |
| 100000045 | 100026      | Mike    | Parker   | 2011-09-09   | mike.parker@example.com     | M    | 1984-12-03    |
| 100000022 | 100003      | Mike    | Smith    | 1998-09-02   | john@example.com            | M    | 1977-09-25    |
| 100000029 | 100010      | Nick    | Lyon     | 1998-09-09   | nick.lynn@example.com       | M    | 1977-09-15    |
| 100000052 | 100033      | Nick    | Edwards  | 2008-09-09   | nick.edwards@example.com    | M    | 1988-01-02    |
+-----------+-------------+---------+----------+--------------+-----------------------------+------+---------------+
24 rows in set (0.00 sec)
```

---

10. Show the apartment available in Dallas with abundant soft water with a maximum rent of 2000$ per month.

Query:
select Apt_Id, No_of_Bedrooms, Street, City, Apt_No from apartments where apt_id IN (select apt_Id from facilities where Soft_water LIKE 'Y' AND apt_id IN (select apt_Id from seller where rent_cost < 2000)) AND city LIKE 'Dallas';

```
mysql> select Apt_Id, No_of_Bedrooms, Street, City, Apt_No from apartments where apt_id IN (select apt_Id from facilities where Soft_water LIKE 'Y' AND apt_id IN (select apt_Id
 from seller where rent_cost < 2000)) AND city LIKE 'Dallas';
+---------+--------------+--------------+--------+--------+
| Apt_Id  | No_of_Bedrooms | Street       | City   | Apt_No |
+---------+--------------+--------------+--------+--------+
| 1001APT |            2 | 5982 Sit Ave | Dallas |    202 |
| 1005APT |            3 | 321 Acacia Lane | Dallas |    102 |
+---------+--------------+--------------+--------+--------+
2 rows in set (0.00 sec)
```

---

11. Show all the apartments with no Air conditioning.

Query:
select * from apartments where apt_id IN (select apt_id from interiors where Air_Conditioning LIKE 'N');

```
mysql> select * from apartments where apt_id IN (select apt_id from interiors where Air_Conditioning LIKE 'N');
+---------+------+--------+----------------+----------+-----------------+-----------+--------+
| Apt_Id  | Area | Cost   | No_of_Bedrooms | Floor_No | Street          | City      | Apt_No |
+---------+------+--------+----------------+----------+-----------------+-----------+--------+
| 1009APT | 2000 | 100030 |              3 |        2 | 214 Prairie Rd. | Arlington |    201 |
+---------+------+--------+----------------+----------+-----------------+-----------+--------+
1 row in set (0.00 sec)
```

---

12. Show a Seller who has a fixed price for his property and cost less than 50k$.

Query:
select user.FName, user.LName, user.Contact_No, seller.Fixed_Price, seller.Apt_Id from user INNER JOIN seller ON user.SSN = seller.SSSN AND seller.fixed_price < 50000;

```
mysql> select user.FName, user.LName, user.Contact_No, seller.Fixed_Price, seller.Apt_Id from user INNER JOIN seller ON user.SSN = seller.SSSN AND seller.fixed_price < 50000;
+-------+---------+-----------+-------------+---------+
| FName | LName   | Contact_No | Fixed_Price | Apt_Id  |
+-------+---------+-----------+-------------+---------+
| Jack  | Bracken | 6211200012 |       40000 | 1007APT |
+-------+---------+-----------+-------------+---------+
1 row in set (0.00 sec)
```

---

13. Show an apartment in Dallas, TX that costs under 100000$ and has a playschool nearby.

Query:
select * from apartments where cost < 100000 AND apt_id IN (select apt_id from apartment_nearby_places where city LIKE 'Dallas' AND places LIKE 'PLAY_SCHOOL');

```
mysql> select * from apartments where cost < 100000 AND apt_id IN (select apt_id from apartment_nearby_places where city LIKE 'Dallas' AND places LIKE 'PLAY_SCHOOL');
+---------+------+-------+---------------+----------+--------------------+--------+--------+
| Apt_Id  | Area | Cost  | No_of_Bedrooms | Floor_No | Street             | City   | Apt_No |
+---------+------+-------+---------------+----------+--------------------+--------+--------+
| 1010APT | 1200 | 90000 |             3 |        2 | 219 University Lane | Dallas |    202 |
+---------+------+-------+---------------+----------+--------------------+--------+--------+
1 row in set (0.00 sec)
```