# SQL Assignment Report

## SQL Queries:

```sql
SELECT username, email FROM user;
```

```
MariaDB [spendsmart]> SELECT username, email FROM user;
+-----------------------+-------------------------------------+
| username              | email                               |
+-----------------------+-------------------------------------+
| iman_kouri            | kouri.iman@test-email.com           |
| angela_marino         | ang.marino@test-email.com           |
| rhian_thompson-russel | r.thompson-russel@test-email.com    |
| samar_shammas         | samar_shammas@test-email.com        |
| sara_dujmovic         | sara_dujmovic@test-email.com        |
| nguyen_le             | n.le@test-email.com                 |
| alex_santos           | a.santos@test-email.com             |
| yi_sun                | yisun@test-email.com                |
| hazel_rodriguez       | hrodriguez@test-email.com           |
| melissa_anderson      | melissa.anderson@test-email.com     |
+-----------------------+-------------------------------------+
```

```sql
SELECT user.username, user.user_id, credit_card_statements.amount
FROM credit_card_statements JOIN user ON user.user_id =
credit_card_statements.user_id;
```

```
MariaDB [spendsmart]> select user.username, user.user_id, credit_card_statements.merchant, credit_card_statements.amount from credit_
card_statements join user on user.user_id = credit_card_statements.user_id;
+-----------------------+---------+-------------------+--------+
| username              | user_id | merchant          | amount |
+-----------------------+---------+-------------------+--------+
| iman_kouri            |       1 | Hotel Booking     | 200.75 |
| iman_kouri            |       1 | Electronics Store |  95.30 |
| iman_kouri            |       1 | Car Rental        | 150.50 |
| angela_marino         |       2 | Home Decor Store  |  75.40 |
| angela_marino         |       2 | Gas Station       |  45.90 |
| angela_marino         |       2 | Convenience Store |  20.25 |
| rhian_thompson-russel |       3 | Coffee Shop       |  10.50 |
| rhian_thompson-russel |       3 | Fitness Center    |  30.75 |
| rhian_thompson-russel |       3 | Gift Shop         |  50.20 |
| samar_shammas         |       4 | Grocery Store     |  70.90 |
| samar_shammas         |       4 | Movie Theater     |  25.75 |
| samar_shammas         |       4 | Pharmacy          |  15.40 |
| sara_dujmovic         |       5 | Home Improvement  |  85.60 |
| sara_dujmovic         |       5 | Diner             |  30.25 |
| nguyen_le             |       6 | Bakery            |   6.75 |
| nguyen_le             |       6 | Clothing Store    |  60.75 |
| nguyen_le             |       6 | Bookstore         |  40.90 |
| alex_santos           |       7 | Pet Grooming      |  35.30 |
| alex_santos           |       7 | Ice Cream Shop    |   3.25 |
| yi_sun                |       8 | Furniture Store   | 120.40 |
| yi_sun                |       8 | Toy Store         |  55.25 |
| yi_sun                |       8 | Automotive Store  |  90.80 |
| hazel_rodriguez       |       9 | Music Store       |  80.90 |
| hazel_rodriguez       |       9 | Art Supplies Store|  25.50 |
| melissa_anderson      |      10 | Jewelry Shop      | 150.75 |
| melissa_anderson      |      10 | Sporting Goods    |  70.40 |
+-----------------------+---------+-------------------+--------+
26 rows in set (0.001 sec)
```

```sql
SELECT SUM(credit_card_statements.amount), credit_card_statements.user_id
FROM credit_card_statements
GROUP BY user_id;
```

```
MariaDB [spendsmart]> select sum(credit_card_statements.amount), credit_card_statements.user_id from credit_card_statements group by
user_id;
+------------------------------------+---------+
| sum(credit_card_statements.amount) | user_id |
+------------------------------------+---------+
|                             446.55 |       1 |
|                             141.55 |       2 |
|                              91.45 |       3 |
|                             112.05 |       4 |
|                             115.85 |       5 |
|                             108.40 |       6 |
|                              38.55 |       7 |
|                             266.45 |       8 |
|                             106.40 |       9 |
|                             221.15 |      10 |
+------------------------------------+---------+
10 rows in set (0.000 sec)
```

```sql
SELECT * FROM utility_bills WHERE amount > 50;
```

```
MariaDB [spendsmart]> select * from utility_bills where amount > 50
    -> ;
+----------------+---------+-----------------+------------+--------+-------------+
| utility_bill_id | user_id | utility_company | bill_date  | amount | category    |
+----------------+---------+-----------------+------------+--------+-------------+
|             11 |       1 | Gas Co.         | 2023-03-05 |  55.50 | Gas         |
|             13 |       2 | Electricity Co. | 2023-03-15 |  60.00 | Electricity |
|             15 |       2 | Cable Co.       | 2023-03-25 |  75.50 | Cable TV    |
|             17 |       3 | Electricity Co. | 2023-04-05 |  65.75 | Electricity |
|             19 |       4 | Cable Co.       | 2023-04-15 |  70.25 | Cable TV    |
|             21 |       5 | Gas Co.         | 2023-04-25 |  50.60 | Gas         |
|             25 |       7 | Electricity Co. | 2023-05-15 |  65.40 | Electricity |
|             31 |       9 | Cable Co.       | 2023-06-10 |  85.75 | Cable TV    |
|             33 |      10 | Electricity Co. | 2023-06-20 |  60.75 | Electricity |
+----------------+---------+-----------------+------------+--------+-------------+
9 rows in set (0.001 sec)
```

```sql
INSERT INTO user (username, email, password_hash)
VALUES ("pavel_polak","pavel_polak@test-email.com",
"1901a15662db83ab4b9e9448b83ace0f2ba02b34a090711525018f65d42b0d67");
```

```
MariaDB [spendsmart]> insert into user(username, email, password_hash) values ("pavel_polak","pavel_polak@test-email.com","1901a15662
db83ab4b9e9448b83ace0f2ba02b34a090711525018f65d42b0d67");
Query OK, 1 row affected (0.016 sec)

MariaDB [spendsmart]> select * from user;
+---------+---------------------+---------------------------------------------------------------------+----------------------------
---+
| user_id | username            | password_hash                                                       | email
   |
+---------+---------------------+---------------------------------------------------------------------+----------------------------
---+
|       1 | iman_kouri          | e3f022dcfd97a20310068b8508ee0bc14430e4032c569c479f07de0b215fbea0     | kouri.iman@test-email.com
   |
|       2 | angela_marino       | b6e06de398fe29d6f1b77558fd1ae408cab385602c5c2bff715cfc227c83c14e     | ang.marino@test-email.com
   |
|       3 | rhian_thompson-russel | 2c9c2659872caedc216c518e416c4c3034b4b427af53d72d0cd1219c5fe2eae9   | r.thompson-russel@test-email.c
om |
|       4 | samar_shammas       | e3d46414b27f4679c55a6799e0fe3271ae2a0fc2a2f0055c909e8d76f79971d8     | samar_shammas@test-email.com
   |
|       5 | sara_dujmovic       | 7a98d2ff346a648e0f548274c701c20aa2aee57cbe6da45d28b7e09e06fccbf5     | sara_dujmovic@test-email.com
   |
|       6 | nguyen_le           | 6815fac74d7906a4d7367c7df23cd61d3e081f63bf53d2fc4a3218cf57fd507a     | n.le@test-email.com
   |
|       7 | alex_santos         | 26b3f34925a5052893c29dc56f1b7d5de222ff44f65d7f553ba47d9c2a79c640     | a.santos@test-email.com
   |
|       8 | yi_sun              | be33082dc5cc6b47092fc96d58c400167e405173da0148f2bdbe1a0bf80e7dd7     | yisun@test-email.com
   |
|       9 | hazel_rodriguez     | 1e7dd5d6fb805b23971b1629fe717c6f04300d3f6106b74c413a71784821f1df     | hrodriguez@test-email.com
   |
|      10 | melissa_anderson    | 0a244f6c3081478dead94f4d1e13eec5fd083cedb6cf6afde7d524844884e6c1     | melissa.anderson@test-email.co
m  |
|      11 | pavel_polak         | 1901a15662db83ab4b9e9448b83ace0f2ba02b34a090711525018f65d42b0d67     | pavel_polak@test-email.com
   |
+---------+---------------------+---------------------------------------------------------------------+----------------------------
---+
11 rows in set (0.001 sec)
```

```
UPDATE budget_categories
SET budget_limit = 500 WHERE user_id = 2 AND category_name = "Travel";
```

```
MariaDB [spendsmart]> update budget_categories set budget_limit = 500 where user_id = 2 and category_name = 'Travel';
Query OK, 1 row affected (0.017 sec)
Rows matched: 1  Changed: 1  Warnings: 0

MariaDB [spendsmart]> select * from budget_catagories where user_id = 2;
ERROR 1146 (42S02): Table 'spendsmart.budget_catagories' doesn't exist
MariaDB [spendsmart]> select * from budget_categories where user_id = 2;
+--------------------+---------+---------------+--------------+
| budget_category_id | user_id | category_name | budget_limit |
+--------------------+---------+---------------+--------------+
|                 13 |       2 | Travel        |       500.00 |
|                 14 |       2 | Hobbies       |        50.00 |
|                 15 |       2 | Gifts         |        75.00 |
+--------------------+---------+---------------+--------------+
3 rows in set (0.001 sec)
```

```
DELETE FROM credit_card_statements WHERE amount < 10;
```

```
MariaDB [spendsmart]> delete from credit_card_statements where amount < 10;
Query OK, 2 rows affected (0.002 sec)

MariaDB [spendsmart]> select * from credit_card_statements
    -> ;
+------------------------+---------+--------------------+-------------------------+------------------+---------------------+---------+
| credit_card_statement_id | user_id | credit_card_number | institution             | transaction_date | merchant            | amount  |
+------------------------+---------+--------------------+-------------------------+------------------+---------------------+---------+
|                     31 |       1 | ************1234    | JPMorgan Chase & Co.    | 2023-03-15       | Hotel Booking       | 200.75  |
|                     32 |       1 | ************1234    | JPMorgan Chase & Co.    | 2023-03-20       | Electronics Store   |  95.30  |
|                     33 |       1 | ************1234    | JPMorgan Chase & Co.    | 2023-03-25       | Car Rental          | 150.50  |
|                     34 |       2 | ************5678    | Bank of America         | 2023-03-15       | Home Decor Store    |  75.40  |
|                     35 |       2 | ************5678    | Bank of America         | 2023-03-20       | Gas Station         |  45.90  |
|                     36 |       2 | ************5678    | Bank of America         | 2023-03-25       | Convenience Store   |  20.25  |
|                     37 |       3 | ************4321    | Wells Fargo & Co.       | 2023-04-01       | Coffee Shop         |  10.50  |
|                     38 |       3 | ************4321    | Wells Fargo & Co.       | 2023-04-05       | Fitness Center      |  30.75  |
|                     39 |       3 | ************4321    | Wells Fargo & Co.       | 2023-04-10       | Gift Shop           |  50.20  |
|                     40 |       4 | ************8765    | Citigroup Inc.          | 2023-04-15       | Grocery Store       |  70.90  |
|                     41 |       4 | ************8765    | Citigroup Inc.          | 2023-04-20       | Movie Theater       |  25.75  |
|                     42 |       4 | ************8765    | Citigroup Inc.          | 2023-04-25       | Pharmacy            |  15.40  |
|                     43 |       5 | ************9876    | Citigroup Inc.          | 2023-05-01       | Home Improvement    |  85.60  |
|                     44 |       5 | ************9876    | Citigroup Inc.          | 2023-05-05       | Diner               |  30.25  |
|                     46 |       6 | ************3456    | Bank of America         | 2023-05-15       | Clothing Store      |  60.75  |
|                     47 |       6 | ************3456    | Bank of America         | 2023-05-20       | Bookstore           |  40.90  |
|                     48 |       7 | ************6543    | JPMorgan Chase & Co.    | 2023-05-25       | Pet Grooming        |  35.30  |
|                     50 |       8 | ************7890    | Bank of America         | 2023-06-01       | Furniture Store     | 120.40  |
|                     51 |       8 | ************7890    | Bank of America         | 2023-06-05       | Toy Store           |  55.25  |
|                     52 |       8 | ************7890    | Bank of America         | 2023-06-10       | Automotive Store    |  90.80  |
|                     53 |       9 | ************2109    | Bank of America         | 2023-06-15       | Music Store         |  80.90  |
|                     54 |       9 | ************2109    | Bank of America         | 2023-06-20       | Art Supplies Store  |  25.50  |
|                     55 |      10 | ************5432    | JPMorgan Chase & Co.    | 2023-06-25       | Jewelry Shop        | 150.75  |
|                     56 |      10 | ************5432    | JPMorgan Chase & Co.    | 2023-06-30       | Sporting Goods      |  70.40  |
+------------------------+---------+--------------------+-------------------------+------------------+---------------------+---------+
```

```sql
SELECT u.user_id, u.username, c.category_name AS travel_category, SUM(e.amount) AS
total_travel_expense
FROM user AS u
INNER JOIN user_expenses AS e ON u.user_id = e.user_id
INNER JOIN budget_categories AS c ON e.category_id = c.budget_category_id
WHERE c.category_name LIKE 'Travel'
GROUP BY u.user_id, u.username, c.category_name
```

```
+---------+------------------+-----------------+----------------------+
| user_id | username         | travel_category | total_travel_expense |
+---------+------------------+-----------------+----------------------+
|       2 | angela_marino    | Travel          |               150.00 |
|       7 | alex_santos      | Travel          |               120.00 |
|       9 | hazel_rodriguez  | Travel          |                80.00 |
+---------+------------------+-----------------+----------------------+
```

```sql
SELECT u.username, c.budget_limit, c.category_name, SUM(e.amount), c.budget_limit -
SUM(e.amount) AS total_health_expense_remaining
FROM user_expenses AS e
INNER JOIN user AS u ON u.user_id = e.user_id
INNER JOIN budget_categories AS c ON e.category_id = c.budget_category_id
WHERE u.username = 'rhian_thompson-russel' AND e.category_id = 16 AND
e.expense_date LIKE '2023-03%'
```

```
+-----------------------+--------------+---------------+---------------+--------------------------------+
| username              | budget_limit | category_name | SUM(e.amount) | total_health_expense_remaining |
+-----------------------+--------------+---------------+---------------+--------------------------------+
| rhian_thompson-russel |        80.00 | Health        |         55.00 |                          25.00 |
+-----------------------+--------------+---------------+---------------+--------------------------------+
```