Super market Management System

The objective of the **"Supermarket Management System "**is to produce software which manages the sales activity done in a supermarket, maintaining the stock details, maintaining the records of the sales done for a particular month/year. The users will consume less time in calculation and the sales activity will be completed within a fraction of seconds whereas manual system will make the user to write it down which is a long procedure and it also consumes a lot of time.

The data will be stored in the database. Because of this software, paper work will be reduced and the user can spend more time on the monitoring the supermarket. The project will be user friendly and easy to use.

Structure of a Table

Customer: This table contains the detail of customer,such as customer_id,name,email,phone_no,zipcode,amount,cart_it:

```
MariaDB [sqlminiproject]> desc customer;
+------------+--------------+------+-----+---------+-------+
| Field      | Type         | Null | Key | Default | Extra |
+------------+--------------+------+-----+---------+-------+
| customer_id | int(4)      | NO   | PRI | NULL    |       |
| name       | varchar(255) | NO   |     | NULL    |       |
| email      | varchar(255) | NO   |     | NULL    |       |
| phone_no   | bigint(10)   | NO   |     | NULL    |       |
| zipcode    | int(6)       | NO   |     | NULL    |       |
| amount     | bigint(20)   | YES  |     | NULL    |       |
| cart_it    | int(11)      | YES  | MUL | NULL    |       |
+------------+--------------+------+-----+---------+-------+
7 rows in set (0.018 sec)
```

Address : This table contains the details of adress such as zipcode,state,district,cit,customer_id.

```
MariaDB [sqlminiproject]> desc address;
+-------------+--------------+------+-----+---------+-------+
| Field       | Type         | Null | Key | Default | Extra |
+-------------+--------------+------+-----+---------+-------+
| zipcode     | int(6)       | NO   | PRI | NULL    |       |
| state       | varchar(255) | NO   |     | NULL    |       |
| district    | varchar(255) | NO   |     | NULL    |       |
| city        | varchar(255) | NO   |     | NULL    |       |
| customer_id | int(11)      | YES  |     | NULL    |       |
```

Billing_counter : This table contains the details of bill.

```
MariaDB [sqlminiproject]> desc billing_counter;
+-------------+-------------+------+-----+---------------------+-------+
| Field       | Type        | Null | Key | Default             | Extra |
+-------------+-------------+------+-----+---------------------+-------+
| bill_no     | int(9)      | NO   |     | NULL                |       |
| customer_id | int(4)      | NO   | PRI | NULL                |       |
| employee_id | int(3)      | NO   |     | NULL                |       |
| bdate       | datetime    | NO   |     | current_timestamp() |       |
| type        | varchar(20) | YES  |     | NULL                |       |
+-------------+-------------+------+-----+---------------------+-------+
5 rows in set (0.027 sec)
```

Cart:

```
MariaDB [sqlminiproject]> desc cart;
+----------+---------+------+-----+---------+-------+
| Field    | Type    | Null | Key | Default | Extra |
+----------+---------+------+-----+---------+-------+
| cart_id  | int(4)  | NO   | PRI | NULL    |       |
| model_id | int(5)  | NO   |     | NULL    |       |
| quantity | int(3)  | NO   |     | NULL    |       |
| amount   | int(8)  | NO   |     | NULL    |       |
| bill_no  | int(9)  | NO   |     | NULL    |       |
+----------+---------+------+-----+---------+-------+
5 rows in set (0.030 sec)
```

Product :

```
MariaDB [sqlminiproject]> desc product;
+-----------+-------------+------+-----+---------+-------+
| Field     | Type        | Null | Key | Default | Extra |
+-----------+-------------+------+-----+---------+-------+
| prod_id   | int(11)     | NO   | PRI | NULL    |       |
| prod_name | varchar(20) | YES  |     | NULL    |       |
| cust_id   | int(11)     | YES  | MUL | NULL    |       |
+-----------+-------------+------+-----+---------+-------+
3 rows in set (0.013 sec)
```

Content of a Tables:

Customer:

```
MariaDB [sqlminiproject]> select * from customer;
+-------------+---------------+------------------+------------+---------+--------+---------+
| customer_id | name          | email            | phone_no   | zipcode | amount | cart_it |
+-------------+---------------+------------------+------------+---------+--------+---------+
|          26 | hammad        | hmmed@gmail.com  | 85239874310 | 501232 |    202 |      89 |
|         126 | halima        | halima@gmail.com | 85239874311 | 501232 |   2500 |     125 |
|        1001 | rahul         | vijay@gmail.com  |  9222587410 | 542157 |    240 |     118 |
|        1012 | tasu          | btu@gmail.com    |  8945231470 | 504128 |    200 |      87 |
|        1101 | Vijay         | vijay@gmail.com  |  9222587410 | 542157 |    190 |      69 |
|        1111 | Vinayak S P   | vinay@gmail.com  |  9632587410 | 562157 |    111 |      10 |
|        1114 | tasu          | bet@gmail.com    |  8905231470 |  55128 |     50 |      55 |
|        1144 | Vijay         | vijay@gmail.com  |  9442587410 | 560057 | 111150 |      48 |
|        2000 | Sdaa          | sdan@gmail.com   |  6544368956 | 583301 |    180 |      68 |
|        2007 | Bhavan        | bhavan@gmail.com |  8556326989 | 562057 |    220 |      98 |
|        2012 | Ban           | ban@gmail.com    |  8551326989 | 562157 |   2600 |     126 |
|        2127 | Bhavan        | bhavan@gmail.com |   852256989 | 562147 |    170 |      67 |
|        2200 | sameer        | sameer@gmail.com |     2568956 | 987001 |    230 |      99 |
|        2220 | sameer1       | sameer@gmail.com |     2568956 | 981001 | 255550 |     127 |
|        2227 | Bhuvan        | bhuvan@gmail.com |  8563256989 | 562157 |    130 |      47 |
|        2229 | Sachin Koppad | sachin@gmail.com |  6532568956 | 587101 |    140 |    NULL |
|        2296 | hammadd       | hammed@gmail.com |  8521987410 | 501242 |    160 |      56 |
+-------------+---------------+------------------+------------+---------+--------+---------+
17 rows in set (0.009 sec)
```

Address:

```
MariaDB [sqlminiproject]> select * from address;
+----------+------------+-------------+---------------+-------------+
| zipcode  | state      | district    | city          | customer_id |
+----------+------------+-------------+---------------+-------------+
|    41320 | MAHARASTRA | Ahmad NAgar | kokan         |           1 |
|   413207 | MAHARASTRA | Beed        | old atini     |           2 |
|   423701 | MAHARASTRA | Aurangabad  | Old aurangabad|           3 |
|   424001 | MAHARASTRA | dhule       | rasayani      |           4 |
|   424433 | MAHARASTRA | jalna       | jalwa         |           5 |
|   434233 | MAHARASTRA | kalyan      | oldKalyan     |        NULL |
|   441205 | MAHARASTRA | Chandrapur  | kalwa         |           6 |
|   441207 | MAHARASTRA | Gadchiroli  | vasi          |           7 |
|   441601 | MAHARASTRA | Gondia      | old gondia    |        NULL |
|   441802 | MAHARASTRA | Bhandara    | old bhandara  |        NULL |
|   442302 | MAHARASTRA | Amravati    | mumbai        |        NULL |
|   443001 | MAHARASTRA | Buldhana    | mulund        |        NULL |
|   444001 | MAHARASTRA | Akola       | thane         |           2 |
|   561563 | MAHARASTRA | bhiwandi    | oldbhiwandi   |        NULL |
|   645316 | MAHARASTRA | fhule       | pen           |        NULL |
|   734676 | MAHARASTRA | taloja      | oldtaloja     |        NULL |
|   736633 | MAHARASTRA | panvel      | oldpanvel     |        NULL |
|   737633 | MAHARASTRA | amber       | vasai         |        NULL |
|   767678 | MAHARASTRA | malang      | old malang    |        NULL |
|  4311114 | MAHARASTRA | Hongoli     | malad         |        NULL |
+----------+------------+-------------+---------------+-------------+
20 rows in set (0.078 sec)
```

Billing_Counter:

```
MariaDB [sqlminiproject]> select * from billing_counter;
+---------+-------------+-------------+---------------------+---------------------+
| bill_no | customer_id | employee_id | bdate               | type                |
+---------+-------------+-------------+---------------------+---------------------+
|     999 |           1 |         111 | 2020-01-23 23:53:34 | NULL                |
|     991 |           2 |         111 | 2012-10-24 11:43:07 | NULL                |
|     992 |           3 |         111 | 2020-11-24 14:49:20 | NULL                |
|     993 |           4 |         111 | 2020-11-24 16:06:14 | NULL                |
|     994 |           5 |         111 | 2020-11-29 00:05:18 | NULL                |
|     995 |           6 |         111 | 2020-11-29 00:22:49 | NULL                |
|    1000 |           7 |         111 | 2020-01-23 23:53:34 | NULL                |
|     101 |        1014 |         111 | 2023-02-05 06:50:55 | peanut butter       |
|      70 |        1111 |         111 | 2023-02-05 06:50:55 | rice                |
|      72 |        1112 |         111 | 2023-02-05 06:50:55 | zeera               |
|      73 |        1114 |         111 | 2023-02-05 06:50:55 | guava               |
|     101 |        2002 |         111 | 2023-02-05 06:50:55 | peanut butter       |
|     105 |        2026 |         111 | 2023-02-05 06:50:55 | peanut butter + bana|
|     107 |        2029 |         111 | 2023-02-05 06:50:55 | toilet cleaner      |
|      71 |        2222 |         111 | 2023-02-05 06:50:55 | apple               |
|      79 |        2226 |         111 | 2023-02-05 06:50:55 | wheat               |
|      74 |        2326 |         111 | 2023-02-05 06:50:55 | NULL                |
|      75 |        2327 |         111 | 2023-02-05 06:50:55 | toast               |
|     109 |        7772 |         111 | 2023-02-05 06:50:55 | dairy milk          |
|     108 |        8881 |         111 | 2023-02-05 06:50:55 | toothpaste          |
+---------+-------------+-------------+---------------------+---------------------+
20 rows in set (0.023 sec)
```

Cart:

```
MariaDB [sqlminiproject]> select * from cart;
+---------+----------+----------+--------+---------+
| cart_id | model_id | quantity | amount | bill_no |
+---------+----------+----------+--------+---------+
|      10 |    12311 |        2 |     80 |      90 |
|      41 |    12132 |        2 |    110 |      74 |
|      44 |    12111 |        1 |     90 |      70 |
|      47 |    12111 |        1 |     90 |      72 |
|      48 |    12122 |        2 |    100 |      72 |
|      55 |    12122 |        5 |    600 |      90 |
|      56 |    13111 |        2 |    210 |      74 |
|      67 |    12511 |        2 |     70 |      62 |
|      68 |    12111 |        2 |    100 |      80 |
|      69 |    12122 |        5 |    500 |      80 |
|      87 |    12122 |        1 |     40 |      69 |
|      89 |    12111 |        6 |    444 |      74 |
|      98 |    12111 |        2 |    200 |      40 |
|      99 |    12222 |        3 |    333 |     108 |
|     118 |    12111 |        5 |   1140 |     115 |
|     119 |    12111 |        5 |   1240 |     105 |
|     125 |    12111 |        2 |    456 |     120 |
|     126 |    12122 |        1 |     50 |     120 |
|     127 |    12111 |        2 |    455 |      20 |
|     129 |    12122 |        1 |     20 |      10 |
+---------+----------+----------+--------+---------+
20 rows in set (0.483 sec)
```

Product:

```
MariaDB [sqlminiproject]> select * from product;
+---------+-------------+---------+
| prod_id | prod_name   | cust_id |
+---------+-------------+---------+
|       1 | waquar      |    1014 |
|       2 | rice        |    1111 |
|       3 | kethep      |    1112 |
|       4 | biscuit     |    1114 |
|       5 | namkeen     |    2002 |
|       6 | egg         |    2026 |
|       7 | rice        |    2029 |
|       8 | brown rice  |    2222 |
|       9 | cookies     |    2226 |
|      10 | bhujia      |    2326 |
|      11 | pediasure   |    2327 |
|      12 | cake        |       1 |
|      13 |  brown_cake |       2 |
|      14 | aata        |       3 |
|      15 | maida       |       4 |
|      16 | maggie      |       5 |
|      17 | cold drink  |       6 |
|      18 | aloo bhujia |       7 |
+---------+-------------+---------+
18 rows in set (0.001 sec)
```

SUBQUERY:

1.Show All the details of customer with Customer table whoes amount >750;

```
MariaDB [sqlminiproject]> select * from customer where amount IN(select amount from customer where amount>750);
+-------------+---------+-------------------+-------------+---------+--------+
| customer_id | name    | email             | phone_no    | zipcode | amount |
+-------------+---------+-------------------+-------------+---------+--------+
|        1144 | Vijay   | vijay@gmail.com   |  9442587410 |  560057 | 111150 |
|         126 | halima  | halima@gmail.com  | 85239874311 |  501232 |   2500 |
|        2012 | Ban     | ban@gmail.com     |  8551326989 |  562157 |   2600 |
|        2220 | sameer1 | sameer@gmail.com  |     2568956 |  981001 | 255550 |
+-------------+---------+-------------------+-------------+---------+--------+
4 rows in set (0.001 sec)
```

2.Display detail from cart table those who purchase more quantity of product;

```
MariaDB [sqlminiproject]> select * from cart where quantity=(select max(quantity) from cart);
+---------+----------+----------+--------+---------+
| cart_id | model_id | quantity | amount | bill_no |
+---------+----------+----------+--------+---------+
|      89 |    12111 |        6 |    444 |      74 |
+---------+----------+----------+--------+---------+
1 row in set (0.001 sec)
```

3.Display the detail of customer where city is kokan or old Aurangabad;

```
MariaDB [sqlminiproject]> select * from address where city IN(select city from address where city='kokan' or city='old aurangabad');
+---------+------------+------------+----------------+
| zipcode | state      | district   | city           |
+---------+------------+------------+----------------+
|   41320 | MAHARASTRA | Ahmad NAgar | kokan         |
|  423701 | MAHARASTRA | Aurangabad | Old aurangabad |
+---------+------------+------------+----------------+
2 rows in set (0.001 sec)
```

4.Display details from billing_counter where product type is peanut butter;

```
MariaDB [sqlminiproject]> select * from billing_counter where type IN(select type from billing_counter where type='peanut butter');
+---------+-------------+-------------+---------------------+---------------+
| bill_no | customer_id | employee_id | bdate               | type          |
+---------+-------------+-------------+---------------------+---------------+
|     101 |        1014 |         111 | 2023-02-05 06:50:55 | peanut butter |
|     101 |        2002 |         111 | 2023-02-05 06:50:55 | peanut butter |
+---------+-------------+-------------+---------------------+---------------+
2 rows in set (0.001 sec)
```

VIEW:

1.create a view table for cart and customer;

create view v_cart_customer1 as select cart.cart_id,cart.quantity,cart.amount,customer.customer_id,customer.name,customer.zipcode from cart,customer where cart_id in(10,41) and customer_id in(1111,1112);

Query OK, 0 rows affected (0.003 sec)

```
MariaDB [sqlminiproject]> create view v_cart_customer1  as select cart.cart_id,cart.quantity,cart.amount,customer.customer_id,customer.name,customer.zipcode from cart,custo
mer where cart_id in(10,41) and customer_id in(1111,1112);
Query OK, 0 rows affected (0.003 sec)

MariaDB [sqlminiproject]> select * from v_cart_customer1;
+---------+----------+--------+-------------+-------------+---------+
| cart_id | quantity | amount | customer_id | name        | zipcode |
+---------+----------+--------+-------------+-------------+---------+
|      10 |        2 |     80 |        1111 | Vinayak S P |  562157 |
|      41 |        2 |    110 |        1111 | Vinayak S P |  562157 |
+---------+----------+--------+-------------+-------------+---------+
2 rows in set (0.001 sec)
```

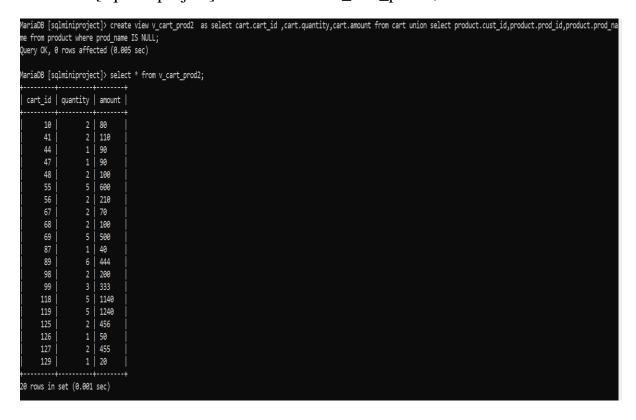2.create view table for address(single table view):

create view v_address as select * from address where zipcode in(41320,413207);

Query OK, 0 rows affected (0.005 sec)

```
MariaDB [sqlminiproject]> create view v_address as select * from address where zipcode in(41320,413207);
Query OK, 0 rows affected (0.005 sec)

MariaDB [sqlminiproject]> select * from v_address;
+---------+------------+-------------+-----------+-------------+
| zipcode | state      | district    | city      | customer_id |
+---------+------------+-------------+-----------+-------------+
|   41320 | MAHARASTRA | Ahmad NAgar | kokan     |           1 |
|  413207 | MAHARASTRA | Beed        | old atini |           2 |
+---------+------------+-------------+-----------+-------------+
2 rows in set (0.001 sec)
```

3. MariaDB [sqlminiproject]> create view v_cart_prod2 as select cart.cart_id ,cart.quantity,cart.amount from cart union select product.cust_id,product.prod_id,product.prod_name from product where prod_name IS NULL;

Query OK, 0 rows affected (0.005 sec)

MariaDB [sqlminiproject]> select * from v_cart_prod2;

```
MariaDB [sqlminiproject]> create view v_cart_prod2  as select cart.cart_id ,cart.quantity,cart.amount from cart union select product.cust_id,product.prod_id,product.prod_na
me from product where prod_name IS NULL;
Query OK, 0 rows affected (0.005 sec)

MariaDB [sqlminiproject]> select * from v_cart_prod2;
+---------+----------+--------+
| cart_id | quantity | amount |
+---------+----------+--------+
|      10 |        2 | 80     |
|      41 |        2 | 110    |
|      44 |        1 | 90     |
|      47 |        1 | 90     |
|      48 |        2 | 100    |
|      55 |        5 | 600    |
|      56 |        2 | 210    |
|      67 |        2 | 70     |
|      68 |        2 | 100    |
|      69 |        5 | 500    |
|      87 |        1 | 40     |
|      89 |        6 | 444    |
|      98 |        2 | 200    |
|      99 |        3 | 333    |
|     118 |        5 | 1140   |
|     119 |        5 | 1240   |
|     125 |        2 | 456    |
|     126 |        1 | 50     |
|     127 |        2 | 455    |
|     129 |        1 | 20     |
+---------+----------+--------+
20 rows in set (0.001 sec)
```

JOINS

1.Perform inner-join of two table from customer and cart to show the customer_id, name,email, and from cart table I take quantity and amount;

Selectcustomer.customer_id,customer.name,customer.email,cart.quantity,cart.amount from customer inner join cart on customer.customer_id=cart.cart_id;

```
MariaDB [sqlminiproject]> select customer.customer_id,customer.name,customer.email,cart.quantity,cart.amount  from customer inner join cart on customer.customer_id=cart.car
t_id;
+-------------+--------+------------------+----------+--------+
| customer_id | name   | email            | quantity | amount |
+-------------+--------+------------------+----------+--------+
|         126 | halima | halima@gmail.com |        1 |     50 |
+-------------+--------+------------------+----------+--------+
1 row in set (0.001 sec)
```

2.Display detail of customer by performing left on customer and cart:

```
MariaDB [sqlminiproject]> select  cart.cart_id,cart.quantity,cart.amount,cart.model_id,billing_counter.bill_no,billing_counter.bdate,billing_counter.type from cart left joi
n billing_counter on  billing_counter.bill_no = cart.model_id where quantity = 2;
+---------+----------+--------+----------+---------+-------+------+
| cart_id | quantity | amount | model_id | bill_no | bdate | type |
+---------+----------+--------+----------+---------+-------+------+
|      10 |        2 |     80 |    12311 |    NULL |  NULL | NULL |
|      41 |        2 |    110 |    12132 |    NULL |  NULL | NULL |
|      48 |        2 |    100 |    12122 |    NULL |  NULL | NULL |
|      56 |        2 |    210 |    13111 |    NULL |  NULL | NULL |
|      67 |        2 |     70 |    12511 |    NULL |  NULL | NULL |
|      68 |        2 |    100 |    12111 |    NULL |  NULL | NULL |
|      98 |        2 |    200 |    12111 |    NULL |  NULL | NULL |
|     125 |        2 |    456 |    12111 |    NULL |  NULL | NULL |
|     127 |        2 |    455 |    12111 |    NULL |  NULL | NULL |
+---------+----------+--------+----------+---------+-------+------+
9 rows in set (0.001 sec)
```

3.perform self join in customer table :

MariaDB [sqlminiproject]> select A.name as name1,B.name as name2,A.email,A.amount from customer A,customer B where A.customer_id=B.customer_id order by A.amount desc;

```
MariaDB [sqlminiproject]> select A.name as name1,B.name as name2,A.email,A.amount from customer A,customer B where A.customer_id=B.customer_id order by A.amount desc;
+--------------+--------------+--------------------+--------+
| name1        | name2        | email              | amount |
+--------------+--------------+--------------------+--------+
| sameer1      | sameer1      | sameer@gmail.com   | 255550 |
| Vijay        | Vijay        | vijay@gmail.com    | 111150 |
| Ban          | Ban          | ban@gmail.com      |   2600 |
| halima       | halima       | halima@gmail.com   |   2500 |
| rahul        | rahul        | vijay@gmail.com    |    240 |
| sameer       | sameer       | sameer@gmail.com   |    230 |
| Bhavan       | Bhavan       | bhavan@gmail.com   |    220 |
| hammad       | hammad       | hmmed@gmail.com    |    202 |
| tasu         | tasu         | btu@gmail.com      |    200 |
| Vijay        | Vijay        | vijay@gmail.com    |    190 |
| Sdaa         | Sdaa         | sdan@gmail.com     |    180 |
| Bhavan       | Bhavan       | bhavan@gmail.com   |    170 |
| hammadd      | hammadd      | hammed@gmail.com   |    160 |
| Sachin Koppad| Sachin Koppad| sachin@gmail.com   |    140 |
| Bhuvan       | Bhuvan       | bhuvan@gmail.com   |    130 |
| Vinayak S P  | Vinayak S P  | vinay@gmail.com    |    111 |
| tasu         | tasu         | bet@gmail.com      |     50 |
+--------------+--------------+--------------------+--------+
17 rows in set (0.001 sec)
```

4. .Perform Right-join of two table from customer and cart to show the customer_id, name,email, and from cart table I take quantity and amount;

```
MariaDB [sqlminiproject]> Select customer.customer_id,customer.name,customer.email,cart.quantity,cart.amount  from customer right join cart on customer.cart_it=cart.cart_id
;
+-------------+-------------+--------------------+----------+--------+
| customer_id | name        | email              | quantity | amount |
+-------------+-------------+--------------------+----------+--------+
|        1111 | Vinayak S P | vinay@gmail.com    |        2 |     80 |
|        NULL | NULL        | NULL               |        2 |    110 |
|        NULL | NULL        | NULL               |        1 |     90 |
|        2227 | Bhuvan      | bhuvan@gmail.com   |        1 |     90 |
|        1144 | Vijay       | vijay@gmail.com    |        2 |    100 |
|        1114 | tasu        | bet@gmail.com      |        5 |    600 |
|        2296 | hammadd     | hammed@gmail.com   |        2 |    210 |
|        2127 | Bhavan      | bhavan@gmail.com   |        2 |     70 |
|        2000 | Sdaa        | sdan@gmail.com     |        2 |    100 |
|        1101 | Vijay       | vijay@gmail.com    |        5 |    500 |
|        1012 | tasu        | btu@gmail.com      |        1 |     40 |
|          26 | hammad      | hmmed@gmail.com    |        6 |    444 |
|        2007 | Bhavan      | bhavan@gmail.com   |        2 |    200 |
|        2200 | sameer      | sameer@gmail.com   |        3 |    333 |
|        1001 | rahul       | vijay@gmail.com    |        5 |   1140 |
|        NULL | NULL        | NULL               |        5 |   1240 |
|         126 | halima      | halima@gmail.com   |        2 |    456 |
|        2012 | Ban         | ban@gmail.com      |        1 |     50 |
|        2220 | sameer1     | sameer@gmail.com   |        2 |    455 |
|        NULL | NULL        | NULL               |        1 |     20 |
+-------------+-------------+--------------------+----------+--------+
20 rows in set (0.002 sec)
```

5.perform join with union clause;

```
MariaDB [sqlminiproject]> select cart.cart_id ,cart.quantity from cart union select product.cust_id,product.prod_name from product where prod_name IS NULL;
+---------+----------+
| cart_id | quantity |
+---------+----------+
|      10 | 2        |
|      41 | 2        |
|      44 | 1        |
|      47 | 1        |
|      48 | 2        |
|      55 | 5        |
|      56 | 2        |
|      67 | 2        |
|      68 | 2        |
|      69 | 5        |
|      87 | 1        |
|      89 | 6        |
|      98 | 2        |
|      99 | 3        |
|     118 | 5        |
|     119 | 5        |
|     125 | 2        |
|     126 | 1        |
|     127 | 2        |
|     129 | 1        |
+---------+----------+
20 rows in set (0.001 sec)
```