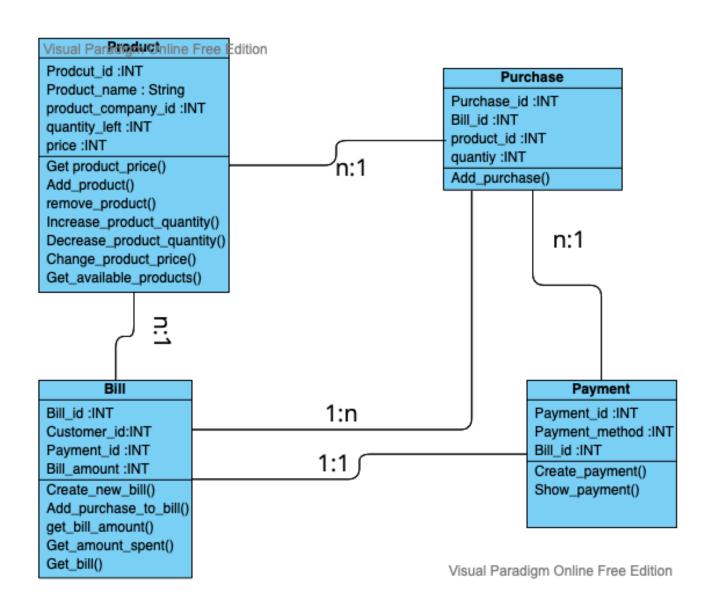
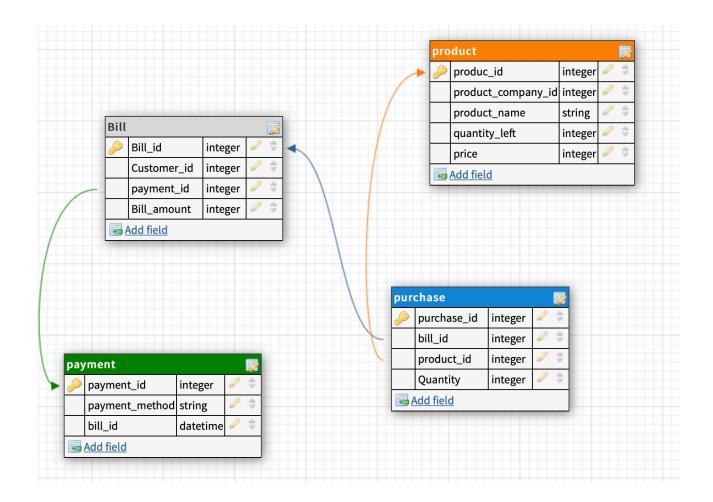
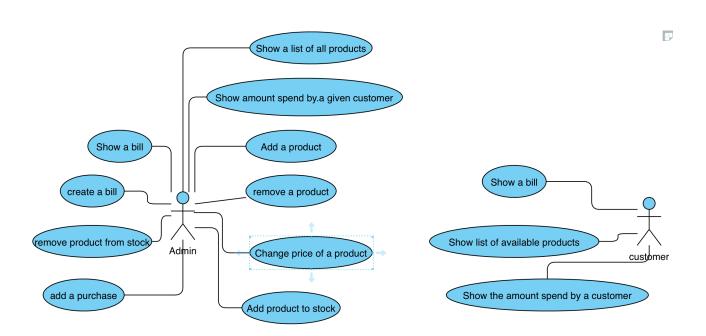
## **Shopping Mall Database**

Naitiksinh Solanki(IMT2020051)



UML class diagram





OR mapping Use case diagram

## Add product operation

```
1. Add a product
2. Remove a product
3. Change price of a product
4. Increase quantity of product
5. Decrease quantity of a product
6. Create a bill
7. Add a purchase
8. Get price of a product
9. Show amount spent by a given customer
10. Show list of all available products
11. Show a bill
12. Exit
1 Enter product name
Noodles
Enter product company_id
11
Enter product price
300
Enter quantity of the product
400
```

product_id	product_name	product_company_id	quantity_left	price
1	   Apple	1	+   49	120
2	Mango	1	j 0	500
3	Banana	1	10	30
4	Kiwi	2	5	600
5	Orange	2	40	100
6	Grapes	2	20	110
7	Water Bottle	j 3	40	120
8	Moisturizer	j 4	80	300
9	Water Bottle-1	5	20	400
10	Water Bottle-2	5	10	100
11	T-shirt-1	6	3	800
13	Ching	2	400	200
sql> select 	* from product;		,	! <u>-</u>
sql> select 		+   product_company_id 	   quantity_left	+   price 
sql> select  product_id 	* from product; +   product_name +   Apple	1	+	     120
sql> select  product_id  1 2	* from product; 	1   1		   120   500
sql> select 	* from product; 		49   0   10	120   500   30
sql> select  product_id  1 2	* from product; 	1   1	49   0   10	120   500   30   600
sql> select 	* from product; 		49   0   10	120   500   30
sql> select 	* from product; 	1   1   1   2	49   0   10   5   40	120   500   30   600   100
sql> select 	* from product;	1   1   1   2   2	49   0   10   5   40   20	120   120   500   30   600   100   110
sql> select 	* from product;	1   1   1   2   2   2   3	49   0   10   5   40   20   40	120   500   30   600   100   110   120   300
sql> select product_id	* from product;	1   1   2   2   2   3   4	49   0   10   5   40   20   40   80	120   500   30   600   100   120   120   300   400
sql> select 	* from product;	1   1   2   2   2   3   4   5	49   0   10   5   40   20   80   20   20	120   500   30   600   100   120   120   300   400   100
sql> select	* from product;	1   1   2   2   2   3   4	49   0   10   10   10   10   10   10   10	120   500   30   600   100   120   120   300   400   100
sql> select 	* from product;	1   1   2   2   2   3   4   5	49   0   10   5   40   20   80   20   20	120   500   30   600   100   120   120   300   400   100

1. Add a product
2. Remove a product
3. Change price of a product
4. Increase quantity of product
5. Decrease quantity of a product
6. Create a bill
7. Add a purchase
8. Get price of a product
9. Show amount spent by a given customer
10. Show list of all available products
11. Show a bill
12. Exit

3
Enter the product id
10
Enter the new price of the product
200

product_id	product_name	product_company_id	quantity_left	price
1	   Apple	+   1	49	   126
2	Mango	1	0	506
3	Banana	1	10	36
4	Kiwi	2	5	606
5	Orange	2	40	106
6	Grapes	2	20	116
7	Water Bottle	3	40	126
8	Moisturizer	4	80	306
9	Water Bottle-1	5	20	406
10	Water Bottle-2	5	10	106
11	T-shirt-1	6	3	808
13	Ching	2	400	206
14	Noodles	11	400	300
	+ t (0.01 sec)	<del> </del>		

ا اماد خمیانموسم				
product_1a	product_name	product_company_id   	quantity_lert 	brice
1	Apple	1	49	120
2	Mango	1	0	500
3	Banana	1	10	30
4	Kiwi	2	5	600
5	Orange	2	40	100
6	Grapes	2	20	110
7	Water Bottle	3	40	120
8	Moisturizer	4	80	300
9	Water Bottle-1	5	20	400
10	Water Bottle-2	5	10	200
11	T-shirt-1	6	3	800
13	Ching	2	400	200
14	Noodles	11	400	300

13 rows in set (0.00 sec)

## Remove a product

```
1. Add a product
2. Remove a product
3. Change price of a product
4. Increase quantity of product
5. Decrease quantity of a product
6. Create a bill
7. Add a purchase
8. Get price of a product
9. Show amount spent by a given customer
10. Show list of all available products
11. Show a bill
12. Exit
2
Enter product id
14
```

product_id 	product_name	product_company_id	quantity_left	price
1	   Apple	1	49	120
2	Mango	1	0	500
3	Banana	1	10	30
4	Kiwi	2	5	600
5	Orange	2	40	100
6	Grapes	2	20	110
7	Water Bottle	3	40	120
8	Moisturizer	4	80	300
9	Water Bottle-1	5	20	400
10	Water Bottle-2	5	10	200
11	T-shirt-1	6	3	800
13	Ching	2	400	200
14 rows in se sql> select	Noodles 	11   +	400	300 
14 rows in se sql> select	t (0.00 sec) * from product; +	11   +		
14 rows in se sql> select 	+	ii		   price 
14 rows in se sql> select product_id 1 2	+	      product_company_id	quantity_left 49	   price     120
14 rows in se sql> select product_id 1	+	   product_company_id        1     1	 quantity_left 	   price     120   500
rows in se sql> select product_id 2 3 4	+	   product_company_id        1     1     2	quantity_left 49 0 10	   price     120   500   30
rows in se sql> select product_id 1 2 3 4 5	* from product; +  * from product; +   product_name +   Apple   Mango   Banana   Kiwi   Orange	   product_company_id        1     1     2	quantity_left 49 0 10 5	   price     120   500   30   600
rows in se sql> select product_id 1 2 3 4 5 6	* from product; +  * from product; +   product_name +   Apple   Mango   Banana   Kiwi   Orange   Grapes	product_company_id        1	quantity_left 49 0 10 5 40	   price     120   500   30   600   110
14 	* from product; + t (0.00 sec)  * from product; +		quantity_left  49 0 10 5 40 20	   price     120   500   30   600   100   110
14	* from product; + t (0.00 sec)  * from product; +	product_company_id	quantity_left  49 0 10 5 40 20 40 80	   price     120   500   30   600   100   120   300
14 rows in se sql> select product_id 1 2 3 4 5 6 7 8 9	* from product;  * from product;  +   product_name  +   Apple   Mango   Banana   Kiwi   Orange   Grapes   Water Bottle   Moisturizer   Water Bottle-1	product_company_id	quantity_left  49 0 10 5 40 20 40 80 20	   price   120   500   30   600   110   120   300   400
14	* from product; +  * from product; +   product_name +   Apple   Mango   Banana   Kiwi   Orange   Grapes   Water Bottle   Moisturizer   Water Bottle-1	product_company_id	quantity_left  49 0 10 5 40 20 40 80 20 10	   price   120   500   30   600   110   120   300   400
14 rows in se sql> select product_id 1 2 3 4 5 6 7 8 9	* from product;  * from product;  +   product_name  +   Apple   Mango   Banana   Kiwi   Orange   Grapes   Water Bottle   Moisturizer   Water Bottle-1	product_company_id	quantity_left  49 0 10 5 40 20 40 80 20	   price   120   500   30   600   110   120   300   400

## Increase quantity of a product

```
1. Add a product
2. Remove a product
3. Change price of a product
4. Increase quantity of product
5. Decrease quantity of a product
6. Create a bill
7. Add a purchase
8. Get price of a product
9. Show amount spent by a given customer
10. Show list of all available products
11. Show a bill
12. Exit
4
Enter the product id
13
Enter the new quantity of the product to be added
30
```

product_id	product_name	product_company_id	quantity_left	price
1	+   Apple	1		+   120
2	Mango	1	0	j 500
3	Banana	1	10	j 30
4	Kiwi	2	5	600
5	Orange	2	40	100
6	Grapes	2	20	110
7	Water Bottle	3	40	120
8	Moisturizer	4	80	300
9	Water Bottle-1	5	20	400
10	Water Bottle-2	5	10	200
11	T-shirt-1	6	3	800
	l Ohding	2	400	200
sql> select 	Ching + t (0.00 sec) * from product; +			+
rows in se	+ t (0.00 sec) * from product; +	+ +   product_company_id		+
rows in se sql> select	+ t (0.00 sec) * from product; +			+
rows in se sql> select product_id	+	+   product_company_id	+ +	   price
rows in se sql> select product_id	+	+   product_company_id 	+	+   price +   120   500   30
rows in se sql> select product_id 1 2	+	+   product_company_id 	+	+   price +   120   500   30
rows in se sql> select product_id 1 2 3	+	   product_company_id 	   quantity_left   49   0	+   price +   120   500   30
rows in se sql> select product_id 1 2 3 4	* from product; +  * from product; +   product_name +   Apple   Mango   Banana   Kiwi   Orange	product_company_id	   quantity_left 	+   price +   120   500   30
rows in se sql> select product_id 1 2 3 4 5	* from product; +  * from product; +   product_name +   Apple   Mango   Banana   Kiwi   Orange   Grapes   Water Bottle	product_company_id   product_company_id   1   1   1   2	   quantity_left 	+   price     120   500   30   600   100
rows in se sql> select product_id 1 2 3 4 5 6 7 8	* from product; + t (0.00 sec)  * from product; +	product_company_id  1 1 1 2 2 2 2 3 4	quantity_left   quantity_left   49   0   10   5   40   20   40   80	+   price +   120   500   30   600   100   110   120   300
rows in se sql> select product_id 2 3 4 5 6 7 8 9	* from product;  * from product;    product_name   Apple   Mango   Banana   Kiwi   Orange   Grapes   Water Bottle   Water Bottle-1	product_company_id   1   1   1   2   2   2	quantity_left   quantity_left   49   0   10   5   40   20   40   80   20	+   price +   120   500   30   600   100   110   120   300   400
rows in se sql> select product_id 1 2 3 4 5 6 7 8 9 10	* from product;  * from product;  +   product_name  +   Apple   Mango   Banana   Kiwi   Orange   Grapes   Water Bottle   Moisturizer   Water Bottle-1	product_company_id  1 1 1 2 2 2 2 3 4	quantity_left   quantity_left   49   0   10   5   40   20   40   80	+   price +   120   500   30   600   100   110   120   300
rows in se sql> select product_id 2 3 4 5 6 7 8 9	* from product;  * from product;    product_name   Apple   Mango   Banana   Kiwi   Orange   Grapes   Water Bottle   Water Bottle-1	product_company_id   1   1   1   2   2   2   3   4	quantity_left   quantity_left   49   0   10   5   40   20   40   80   20	+   price +   120   500   30   600   100   110   120   300   400

### Decrease Quantity of product

```
1. Add a product
2. Remove a product
3. Change price of a product
4. Increase quantity of product
5. Decrease quantity of a product
6. Create a bill
7. Add a purchase
8. Get price of a product
9. Show amount spent by a given customer
10. Show list of all available products
11. Show a bill
12. Exit
5
Enter the product id
Enter the new quantity of the product to be removed
mysql> select * from product;
 product_id | product_name | product_company_id | quantity_left | price
           1 | Apple
           2 | Mango
                                                                      500
                                                 1
                                                                0
           3 | Banana
                                                 1
                                                                10
                                                                       30
           4 | Kiwi
                                                 2
                                                                 5
                                                                       600
           5 | Orange
                                                                40
                                                                       100
                                                 2
                                                                20 |
           6 Grapes
                                                                       110
                                                 3
           7 | Water Bottle
                                                                40
                                                                       120
          8 | Moisturizer
                                                                80 |
                                                                       300
                                                                20 |
          9 | Water Bottle-1
                                                 5
                                                                       400
          10 | Water Bottle-2
                                                                10 |
                                                 5
                                                                       200
          11 | T-shirt-1
                                                                3
                                                                       800
                                                 6
          13 | Ching
                                                                44
                                                                       200
12 rows in set (0.00 sec)
mysql> select * from product;
| product_id | product_name | product_company_id | quantity_left | price |
           1 | Apple
                                                                49
                                                                       120
           2 | Mango
                                                                0
                                                                       500
           3 | Banana
                                                                10
                                                                        30
                                                 1 |
                                                                 5 I
           4 | Kiwi
                                                 2 |
                                                                       600
                                                                40
           5 | Orange
                                                 2
                                                                       100
             Grapes
                                                                20 |
                                                                       110
             | Water Bottle
                                                                40 |
                                                                       120
          8
             | Moisturizer
                                                                80
                                                                       300
                                                 5
           9
              Water Bottle-1
                                                                20
                                                                       400
          10
              Water Bottle-2
                                                 5
                                                                10
                                                                       200
          11
              T-shirt-1
                                                 6
                                                                 3
                                                                       800
                                                 2 |
                                                                39
          13 | Ching
                                                                       200
12 rows in set (0.00 sec)
```

# Add purchase

purchase_id	bill_id	product_id	quantity
1	1	1	2
2	1	3	4
j 3	1	7	1
j 4	2	5	3
j 5	j 3 j	6	3
j 6	4	8	2
j 7	1	1	1
j 8	2	1	3
mysql> select : +	+		
+	+		
1	1	1	2
2	1	3	4
3	1	7	1
4	2	5	3
5	3	6	3
1 6	1	8	2
·	4		<u>-</u>
j 7	4     1	1	1
:			1 3

#### Get price of a product

```
mysql> select * from product;
 product_id | product_name | product_company_id | quantity_left | price |
                                                              49 |
                                                                     120
          1 | Apple
          2 | Mango
                                                              0
                                                                    500
          3 | Banana
                                                                     30
                                               1 |
                                                              10 |
                                                2
                                                               5 |
          4 | Kiwi
                                                                    600
                                                              40 |
          5 | Orange
                                                                    100
                                                                    110
          6 | Grapes
                                                2
                                                              20 |
          7 | Water Bottle
                                                3
                                                              40 |
                                                                    120
          8 | Moisturizer
                                                              80 I
                                                                    300
                                               5
         9 | Water Bottle-1 |
                                                              20
                                                                    400
         10 | Water Bottle-2
                                               5
                                                              10 |
                                                                    200
             T-shirt-1
                                               6
                                                               3 I
                                                                     800
         11 |
                                                2
                                                              39 |
                                                                     200 I
         13 | Ching
12 rows in set (0.00 sec)
```

```
1. Add a product
2. Remove a product
3. Change price of a product
4. Increase quantity of product
5. Decrease quantity of a product
6. Create a bill
7. Add a purchase
8. Get price of a product
9. Show amount spent by a given customer
10. Show list of all available products
11. Show a bill
12. Exit
8
Enter the product id
1
120
```

### Show amount spent by a given customer

```
mysql> select * from bill;
 bill_id | customer_id | payment_id | bill_amount
                                             1040
       2 |
                                  2 |
                                              300
       3 I
                     3 |
                                  3 |
                                             330
       4
                     4 1
                                 3
                                              600
       5 I
                     5
                                  6
                                                0
        6 1
                    12
                                 10
                                                0
6 rows in set (0.00 sec)
```

```
1. Add a product
2. Remove a product
3. Change price of a product
4. Increase quantity of product
5. Decrease quantity of a product
6. Create a bill
7. Add a purchase
8. Get price of a product
9. Show amount spent by a given customer
10. Show list of all available products
11. Show a bill
12. Exit
9
Enter customer id
1
total anount spent by 1 is 1040
```

### List of all products

```
o. Create a bi<u>ll</u>
7. Add a purchase
8. Get price of a product
9. Show amount spent by a given customer
10. Show list of all available products
11. Show a bill
12. Exit
10
Apple
Banana
Kiwi
Orange
Grapes
Water Bottle
Moisturizer
Water Bottle-1
Water Bottle-2
T-shirt-1
Ching
```

#### Show a bill

```
1. Add a product
2. Remove a product
3. Change price of a product
4. Increase quantity of product
5. Decrease quantity of a product
6. Create a bill
7. Add a purchase
8. Get price of a product
9. Show amount spent by a given customer
10. Show list of all available products
11. Show a bill
12. Exit
Enter bill id
product id , quantity
5 3
1 3
```