

Inventory management system

Note:

Design database for the given scenario and use DDL and DML statements to perform the CRUD operations.

1. Understand the given problem statement and apply W3H to analyze it.
2. Bring out the list of tables and attributes required for the database design.
3. Apply Normalization.
4. Draw an ER Diagram.
5. Perform the CRUD operations.

1)W3H

WHAT ?	HOW ?
<p>What are the requirements to be Implement?</p> <p>USER:</p> <p>1)Question:</p> <p>The user want to register in your portal? Ans: Yes, users want to register.</p> <p>2)Question:</p> <p>The user wants to order a product? Ans: Yes, users want toOrder Product.</p> <p>3)Question:</p> <p>How do users want to pay the bill for a product?</p> <p>Ans: Through anyone of the payment Method.</p> <p>4)Question:</p> <p>The user can able to view the details of theProduct information? Ans: Yes, users want to view.</p>	<p>USER:</p> <p>1)Question:</p> <p>Method1:Using the mobile number. Method2:Using the email-id. Method3:Using the both mobile number or email-id.</p> <p>2)Question:</p> <p>Method1:Showcase list of available Product name. Method2:Showcase list of available Product in details. Method3:Showcase the list of available product in details along with the picture of the product.</p> <p>3)Question:</p> <p>Method1:Through the upi payment. Method2:Through the card,bank transfer. Method3:Through the both upi payment,cards, bank transfer.</p> <p>4)Question:</p> <p>Method1:Entering the mobile number. Method2:Enter the name. Method3:Entering the login Credentials.</p>

2)

Product:

pid
pname
pprice
pbrand

Sales:

sid
squantity
sprice
sdate
Pid

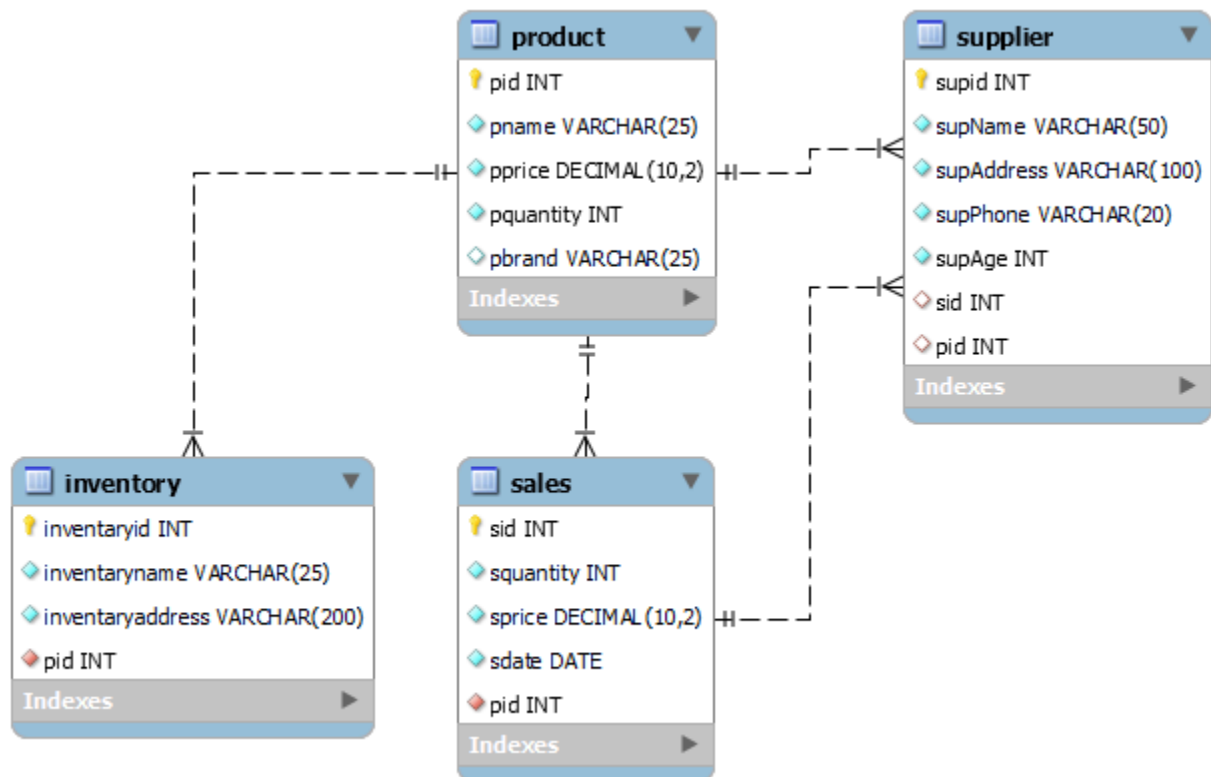
Supplier:

supid
supName
supAddress
supPhone
supAge
sid
Pid

Inventory:

inventoryid
inventoryname
Inventoryaddresspid

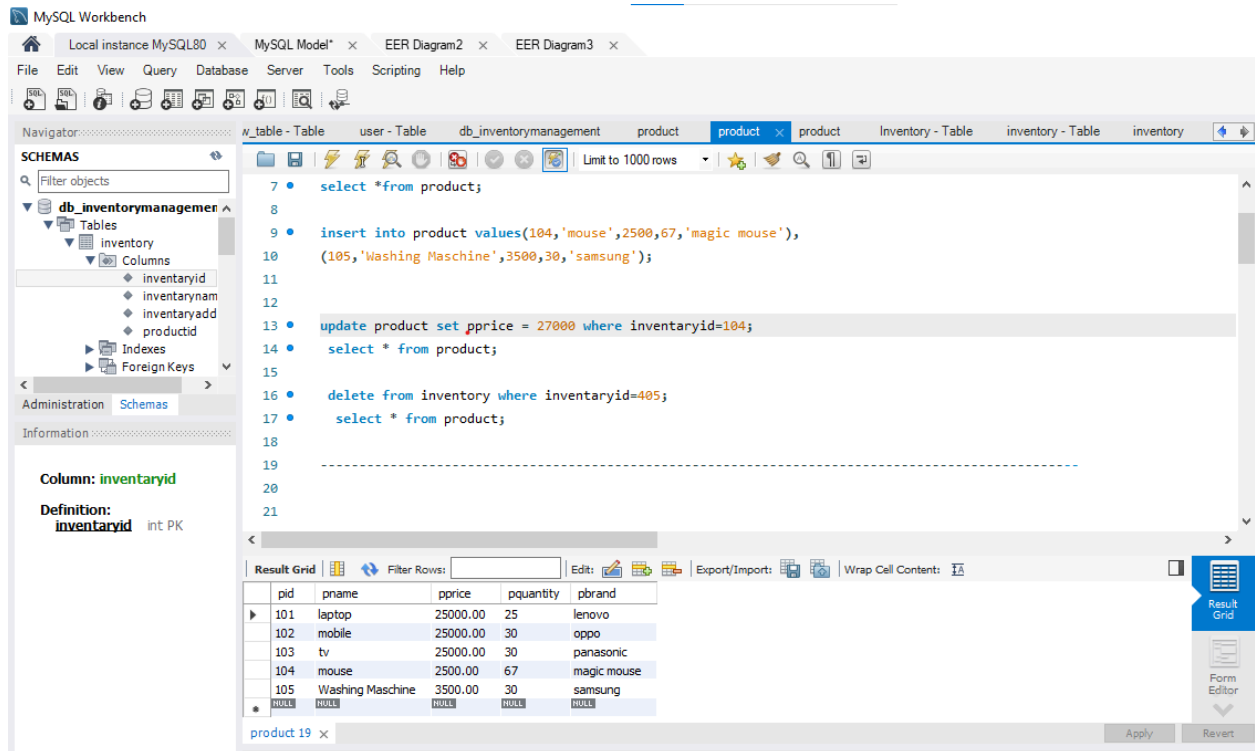
4)Er diagram



5)Crud operations

Product:

Add:



The screenshot shows the MySQL Workbench interface. The left sidebar displays the 'SCHEMAS' tree with 'db_inventorymanagement' expanded, showing tables like 'inventory' and 'product'. The main editor window contains the following SQL queries:

```
7 • select *from product;
8
9 • insert into product values(104,'mouse',2500,67,'magic mouse'),
10 (105,'Washing Maschine',3500,30,'samsung');
11
12
13 • update product set pprice = 27000 where inventoryid=104;
14 • select * from product;
15
16 • delete from inventory where inventoryid=405;
17 • select * from product;
18
19 -----
20
21
```

Below the queries, the 'Result Grid' is displayed, showing the following data:

pid	pname	pprice	pquantity	pbrand
101	laptop	25000.00	25	lenovo
102	mobile	25000.00	30	oppo
103	tv	25000.00	30	panasonic
104	mouse	2500.00	67	magic mouse
105	Washing Maschine	3500.00	30	samsung

The bottom of the interface shows the 'product 19' tab and buttons for 'Apply' and 'Revert'.

Update:

The screenshot shows the MySQL Workbench interface with the 'product' table selected in the 'product' schema. The SQL editor contains the following queries:

```
7 • select *from product;
8
9 • insert into product values(104,'mouse',2500,67,'magic mouse'),
10 (105,'Washing Maschine',3500,30,'samsung');
11
12
13 • update product set pprice = 27000 where pid=104;
14 • select * from product;
15
16 • delete from inventory where inventoryid=405;
17 • select * from product;
18
19 -----
20
21
```

The 'Result Grid' at the bottom displays the following data:

pid	pname	pprice	pquantity	pbrand
101	laptop	25000.00	25	lenovo
102	mobile	25000.00	30	oppo
103	tv	25000.00	30	panasonic
104	mouse	27000.00	67	magic mouse
105	Washing Maschine	3500.00	30	samsung
NULL	NULL	NULL	NULL	NULL

delete:

The screenshot shows the MySQL Workbench interface with the 'product' table selected in the 'product' schema. The SQL editor contains the following queries:

```
7 • select *from product;
8
9 • insert into product values(104,'mouse',2500,67,'magic mouse'),
10 (105,'Washing Maschine',3500,30,'samsung');
11
12
13 • update product set pprice = 27000 where pid=104;
14 • select * from product;
15
16 • delete from product where pid=102;
17 • select * from product;
18
19 -----
20
21
```

The 'Result Grid' at the bottom displays the following data:

pid	pname	pprice	pquantity	pbrand
101	laptop	25000.00	25	lenovo
103	tv	25000.00	30	panasonic
104	mouse	27000.00	67	magic mouse
105	Washing Maschine	3500.00	30	samsung
NULL	NULL	NULL	NULL	NULL

Sales: Add:

MySQL Workbench

Local instance MySQL80 x MySQL Model* x EER Diagram2 x EER Diagram3 x

File Edit View Query Database Server Tools Scripting Help

Navigator: Local instance MySQL80 x MySQL Model* x EER Diagram2 x EER Diagram3 x

SCHEMAS

Filter objects

db_inventorymanagemer

Tables

inventory

Columns

inventoryid

inventorynam

inventoryadd

productid

Indexes

Foreign Keys

Administration Schemas

Information:

Column: **inventoryid**

Definition: **inventoryid** int PK

product

product

Inventory - Table

inventory - Table

inventory

Limit to 1000 rows

```
22
23 CREATE TABLE sales (
24     sid INT NOT NULL,
25     squantity INT NOT NULL,
26     sprice DECIMAL(10, 2) NOT NULL,
27     sdate DATE NOT NULL,
28     PRIMARY KEY (sid)
29 );
30 ALTER TABLE sales ADD pid INT;
31 DESC sales;
32 INSERT INTO sales VALUES(201,100,2500,'2024-01-19',101),
33 (202,90,4000,'2023-06-19',102),
34 (203,80,600,'2023-08-30',102),
35 (204,120,750,'2023-08-10',103),
36 (205,220,2500,'2024-01-19',104)
```

Result Grid

sid	squantity	sprice	sdate	pid
201	100	2500.00	2024-01-19	101
202	90	4000.00	2023-06-19	102
203	80	600.00	2023-08-30	102
204	120	750.00	2023-08-10	103
205	220	2500.00	2024-01-19	104
NULL	NULL	NULL	NULL	NULL

sales 22 x

Apply Revert

Update:

MySQL Workbench

Local instance MySQL80 x MySQL Model* x EER Diagram2 x EER Diagram3 x

File Edit View Query Database Server Tools Scripting Help

Navigator: Local instance MySQL80 x MySQL Model* x EER Diagram2 x EER Diagram3 x

SCHEMAS

Filter objects

db_inventorymanagemer

Tables

inventory

product

sales

Columns

sid

squantity

sprice

sdate

pid

Administration Schemas

Information:

Column: **squantity**

Definition: **squantity** int

product

product

Inventory - Table

inventory - Table

inventory

Limit to 1000 rows

```
32 INSERT INTO sales VALUES(201,100,2500,'2024-01-19',101),
33 (202,90,4000,'2023-06-19',102),
34 (203,80,600,'2023-08-30',102),
35 (204,120,750,'2023-08-10',103),
36 (205,220,2500,'2024-01-19',104)
37 ;
38 SELECT * FROM sales;
39
40
41 UPDATE sales SET squantity= 400 WHERE sid=202;
42 SELECT * FROM sales;
43
44 DELETE FROM product WHERE pid=102;
45 SELECT * FROM product;
46
```

Result Grid

sid	squantity	sprice	sdate	pid
201	100	2500.00	2024-01-19	101
202	400	4000.00	2023-06-19	102
203	80	600.00	2023-08-30	102
204	120	750.00	2023-08-10	103
205	220	2500.00	2024-01-19	104
NULL	NULL	NULL	NULL	NULL

sales 23 x

Apply Revert

Delete:

MySQL Workbench interface showing a SQL script for deleting data from the product table and updating the sales table. The script is executed in the product table context.

```
32 • insert into sales values(201,100,2500,'2024-01-19',101),
33 (202,90,4000,'2023-06-19',102),
34 (203,80,600,'2023-08-30',102),
35 (204,120,750,'2023-08-10',103),
36 (205,220,2500,'2024-01-19',104)
37 ;
38 • select *from sales;
39
40
41 • update sales set squantity= 400 where sid=202;
42 • select * from sales;
43
44 • delete from product where pid=102;
45 • select * from product;
46
```

Result Grid:

sid	squantity	sprice	sdate	pid
201	100	2500.00	2024-01-19	101
202	400	4000.00	2023-06-19	102
203	80	600.00	2023-08-30	102
204	120	750.00	2023-08-10	103
205	220	2500.00	2024-01-19	104
NULL	NULL	NULL	NULL	NULL

Supplier: Add:

MySQL Workbench interface showing a SQL script for creating a supplier table and inserting data. The script is executed in the product table context.

```
51 • CREATE TABLE supplier(
52     supid INT PRIMARY KEY,
53     supName VARCHAR(50) NOT NULL,
54     supAddress VARCHAR(100) NOT NULL,
55     supPhone VARCHAR(20) NOT NULL,
56     supAge int not null,
57     sid int ,
58     pid int
59 );
60
61
62 • insert into supplier values(301,'jothi','tirupattur',9444397577,24,202,101) ,
63 (302,'kiruba','kallakurichi',0987654321,24,201,102),
64 (303,'abishak','chennai',6380949336,24,203,102),
65 (304,'logesh Karthik','chennai',6380949336,24,203,102),
66 (305,'hema','chennai',7568349393,24,201,103)
```

Result Grid:

supid	supName	supAddress	supPhone	supAge	sid	pid
301	jothi	tirupattur	9444397577	24	202	101
302	kiruba	kallakurichi	987654321	24	201	102
303	abishak	chennai	6380949336	24	203	102
304	logesh Karthik	chennai	6380949336	24	203	102
305	hema	chennai	7568349393	24	201	103

Update:

MySQL Workbench

Local instance MySQL80 x MySQL Model* x EER Diagram2 x EER Diagram3 x

File Edit View Query Database Server Tools Scripting Help

Navigator: db_inventorymanagemer Tables inventory product sales supplier Columns supid supName supAddress supPhone Administration Schemas Information: Column: supid Definition: supid int PK

product x product Inventory - Table inventory - Table inventory

```
63 (302,'kiruba','kallakurichi',0987654321,24,201,102),
64 (303,'abishak','chennai',6380949336,24,203,102),
65 (304,'logesh Karthik','chennai',6380949336,24,203,102),
66 (305,'hema','chennai',7568349393,24,201,103)
67 ;
68 • select * from supplier;
69 •
70 • update supplier set supAddress= "viruthunagar" where supid=302;
71 • select * from supplier;
72
73 • delete from supplier where supid=202;
74 • select * from supplier;
75
76
77
78
```

Result Grid Filter Rows: Edit Export/Import: Wrap Cell Content: Result Grid

supid	supName	supAddress	supPhone	supAge	sid	pid
301	jothi	tirupattur	9444397577	24	202	101
302	kiruba	viruthunagar	987654321	24	201	102
303	abishak	chennai	6380949336	24	203	102
304	logesh Karthik	chennai	6380949336	24	203	102
305	hema	chennai	7568349393	24	201	103

supplier 26 x Apply Revert

Delete:

MySQL Workbench

Local instance MySQL80 x MySQL Model* x EER Diagram2 x EER Diagram3 x

File Edit View Query Database Server Tools Scripting Help

Navigator: db_inventorymanagemer Tables inventory product sales supplier Columns supid supName supAddress supPhone Administration Schemas Information: Column: supid Definition: supid int PK

product x product Inventory - Table inventory - Table inventory

```
63 (302,'kiruba','kallakurichi',0987654321,24,201,102),
64 (303,'abishak','chennai',6380949336,24,203,102),
65 (304,'logesh Karthik','chennai',6380949336,24,203,102),
66 (305,'hema','chennai',7568349393,24,201,103)
67 ;
68 • select * from supplier;
69 •
70 • update supplier set supAddress= "viruthunagar" where supid=302;
71 • select * from supplier;
72
73 • delete from supplier where supid=302;
74 • select * from supplier;
75
76
77
78
```

Result Grid Filter Rows: Edit Export/Import: Wrap Cell Content: Result Grid

supid	supName	supAddress	supPhone	supAge	sid	pid
301	jothi	tirupattur	9444397577	24	202	101
303	abishak	chennai	6380949336	24	203	102
304	logesh Karthik	chennai	6380949336	24	203	102
305	hema	chennai	7568349393	24	201	103

supplier 28 x Apply Revert