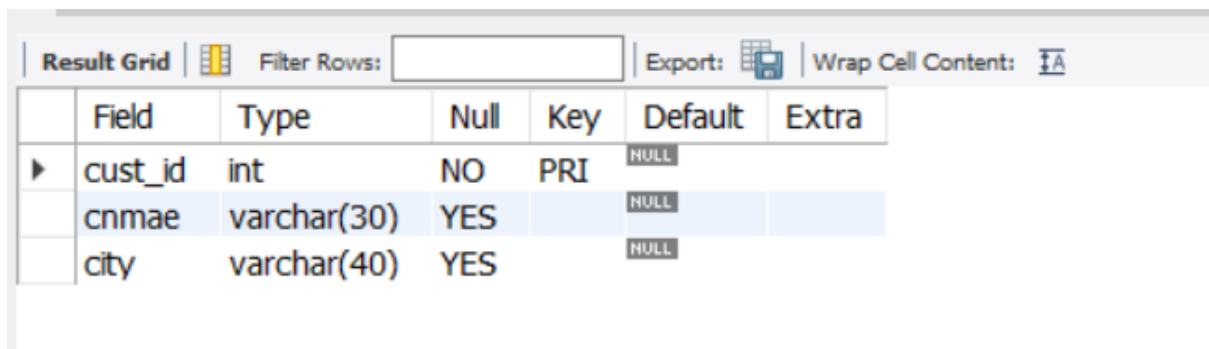# LAB PROGRAM 6 ORDER PROCESSING

create database order_processing;

/* CUSTOMER Table */

create table customer(

   cust_id int,

   cnmae varchar(30),

   city varchar(40),

   primary key(cust_id));

desc customer;

Field	Type	Null	Key	Default	Extra
cust_id	int	NO	PRI	NULL	
cnmae	varchar(30)	YES		NULL	
city	varchar(40)	YES		NULL	

/* ORDERS Table */

create table orders(

   order_no int,

   odate date,

   cust_id int,

   ord_amt int,

   primary key(order_no),

   foreign key(cust_id)references customer (cust_id));

desc orders;

Field	Type	Null	Key	Default	Extra
order_no	int	NO	PRI	NULL	
odate	date	YES		NULL	
cust_id	int	YES	MUL	NULL	
ord_amt	int	YES		NULL	

/* ITEM Table */

create table item(

   item_id int,

   price int,

   primary key(item_id));

desc item;

Field	Type	Null	Key	Default	Extra
item_id	int	NO	PRI	NULL	
price	int	YES		NULL	

/* ORDER_ITEM Table */

create table order_item(

   order_no int,

   item_id int,

   qty int,

   foreign key(order_no)references orders (order_no),

   foreign key(item_id)references item(item_id)on delete set NULL);

desc order_item;

	Field	Type	Null	Key	Default	Extra
▶	order_no	int	YES	MUL	NULL	
	item_id	int	YES	MUL	NULL	
	qty	int	YES		NULL	

/* WAREHOUSE Table */

create table warehouse(

   warehouse_id int,

   city varchar(40),

   primary key(warehouse_id));

desc warehouse;

	Field	Type	Null	Key	Default	Extra
▶	warehouse_id	int	NO	PRI	NULL	
	city	varchar(40)	YES		NULL	

/* SHIPMENT Table */

create table shipment(

   order_no int,

   warehouse_id int,

   ship_date date,

   foreign key(order_no)references orders(order_no),

   foreign key(warehouse_id)references warehouse(warehouse_id));

desc shipment;

Field	Type	Null	Key	Default	Extra
order_no	int	YES	MUL	NULL	
warehouse_id	int	YES	MUL	NULL	
ship_date	date	YES		NULL	

/* Inserts Values To The CUSTOMER Table */

INSERT INTO customer (cust_id, cnmae, city) VALUES (101, 'Asim', 'Gulbarga');

INSERT INTO customer (cust_id, cnmae, city) VALUES (102, 'Amir', 'Delhi');

INSERT INTO customer (cust_id, cnmae, city) VALUES (103, 'Mohsin', 'Mumbai');

INSERT INTO customer (cust_id, cnmae, city) VALUES (104, 'Yaseen', 'Bangalore');

INSERT INTO customer (cust_id, cnmae, city) VALUES (105, 'Aejaz', 'Chennai');

select * from customer;

cust_id	cnmae	city
101	Asim	Gulbarga
102	Amir	Delhi
103	Mohsin	Mumbai
104	Yaseen	Bangalore
105	Aejaz	Chennai
NULL	NULL	NULL

/* Inserts Values To The ORDERS Table */

INSERT INTO orders (order_no, odate, cust_id, ord_amt) VALUES ('201', '2020-03-08', '101', '5000');

INSERT INTO orders (order_no, odate, cust_id, ord_amt) VALUES ('202', '2020-03-20', '102', '1250');

INSERT INTO orders (order_no, odate, cust_id, ord_amt) VALUES ('203', '2020-04-12', '103', '1549');

INSERT INTO orders (order_no, odate, cust_id, ord_amt) VALUES ('204', '2020-03-06', '104', '2500');

INSERT INTO orders (order_no, odate, cust_id, ord_amt) VALUES ('205', '2020-04-04', '105', '4000');

select * from orders;

order_no	odate	cust_id	ord_amt
201	2020-03-08	101	5000
202	2020-03-20	102	1250
203	2020-04-12	103	1549
204	2020-03-06	104	2500
205	2020-04-04	105	4000
NULL	NULL	NULL	NULL

/* Inserts Values To The ITEM Table */

INSERT INTO item (item_id, price) VALUES ('301', '2500');

INSERT INTO item (item_id, price) VALUES ('302', '1250');

INSERT INTO item (item_id, price) VALUES ('303', '5200');

INSERT INTO item (item_id, price) VALUES ('304', '8751');

INSERT INTO item (item_id, price) VALUES ('305', '4512');

select * from item;

item_id	price
301	2500
302	1250
303	5200
304	8751
305	4512
NULL	NULL

/* Inserts Values To The ORDER_ITEM Table */

INSERT INTO order_item (order_no, item_id, qty) VALUES ('201', '301', '2');

INSERT INTO order_item (order_no, item_id, qty) VALUES ('202', '302', '1');

INSERT INTO order_item (order_no, item_id, qty) VALUES ('203', '303', '3');

INSERT INTO order_item (order_no, item_id, qty) VALUES ('204', '304', '2');

INSERT INTO order_item (order_no, item_id, qty) VALUES ('205', '305', '1');

select * from order_item;

order_no	item_id	qty
201	301	2
202	302	1
203	303	3
204	304	2
205	305	1

/* Inserts Values To The WAREHOUSE Table */

INSERT INTO warehouse (warehouse_id, city) VALUES ('501', 'Bangalore');

INSERT INTO warehouse (warehouse_id, city) VALUES ('502', 'Gulbarga');

INSERT INTO warehouse (warehouse_id, city) VALUES ('503', 'Mumbai');

INSERT INTO warehouse (warehouse_id, city) VALUES ('504', 'Delhi');

INSERT INTO warehouse (warehouse_id, city) VALUES ('505', 'Chennai');

select * from warehouse;

warehouse_id	city
501	Bangalore
502	Gulbarga
503	Mumbai
504	Delhi
505	Chennai
NULL	NULL

/* Inserts Values To The SHIPMENT Table */

INSERT INTO shipment (order_no, warehouse_id, ship_date) VALUES ('201', '501', '2020-03-10');

INSERT INTO shipment (order_no, warehouse_id, ship_date) VALUES ('202', '502', '2020-04-08');

INSERT INTO shipment (order_no, warehouse_id, ship_date) VALUES ('203', '503', '2020-03-24');

INSERT INTO shipment (order_no, warehouse_id, ship_date) VALUES ('204', '504', '2020-04-25');

INSERT INTO shipment (order_no, warehouse_id, ship_date) VALUES ('205', '505', '2020-02-26');

select * from shipment;

order_no	warehouse_id	ship_date
201	501	2020-03-10
202	502	2020-04-08
203	503	2020-03-24
204	504	2020-04-25
205	505	2020-02-26

/*************************** QUERIES ****************************/

/* 01. Produce a listing: CUSTNAME, #oforders, AVG_ORDER_AMT, where the middle column is the total numbers of orders by the customer and the last column is the average order amount for that customer. */

select C.cnmae,count(order_no) as No_Of_Orders,avg(ord_amt) as Avg_Amount

from customer C,orders O
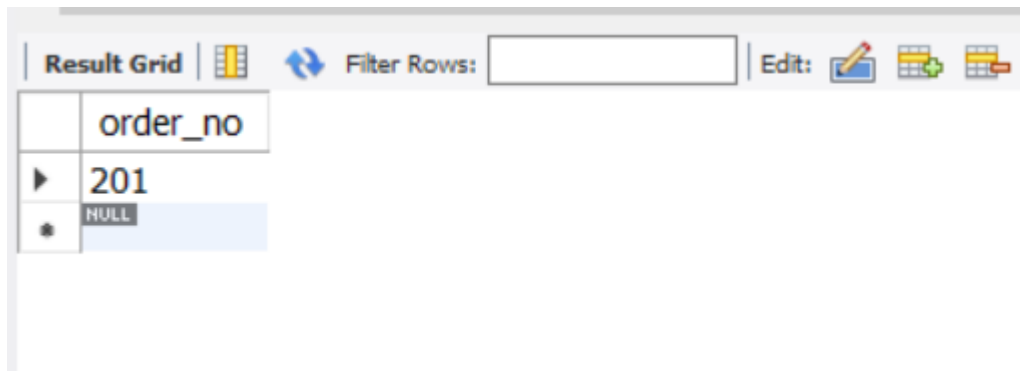
where C.cust_id = O.cust_id

group by C.cnmae;

cnmae	No_Of_Orders	Avg_Amount
Asim	1	5000.0000
Amir	1	1250.0000
Mohsin	1	1549.0000
Yaseen	1	2500.0000
Aejaz	1	4000.0000

/* 02. List the order# for orders that were shipped from all warehouses that the company has in a specific city. */

select order_no from orders where order_no in

(select order_no from shipment

where warehouse_id in

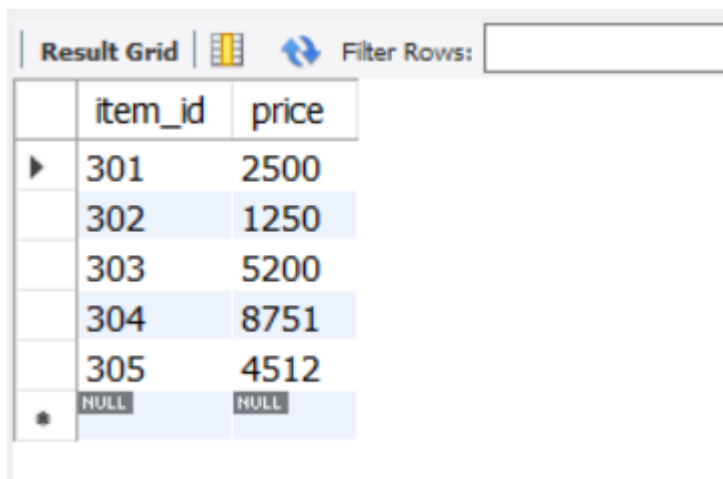(select warehouse_id from warehouse

where city = 'Bangalore'));

order_no
201
NULL

/* 03.   Demonstrate how you delete item# 10 from the ITEM table and make that field null in the ORDER_ITEM table. */

select * from item;

item_id	price
301	2500
302	1250
303	5200
304	8751
305	4512
NULL	NULL

delete from item where item_id = 301;

select * from item;

item_id	price
302	1250
303	5200
304	8751
305	4512
NULL	NULL

select * from order_item;

order_no	item_id	qty
201	NULL	2
202	302	1
203	303	3
204	304	2
205	305	1

commit;