

## 5. Nested & Correlated Queries

Aim : write queries to create and retrieve customer and product relationship,

Table design :

1. PURCHASE (order\_no notnull int, custno notnull int, pronos varchar(15) notnull, quantity notnull int, orderdate date, primarykey order\_no, foreignkey cust no, foreignkey pronos)
2. PRODUCT (product\_no notnull varchar(15), description notnull varchar(15), company notnull varchar(15), price notnull int, primarykey product\_no)
3. CUSTOMER (cust\_no notnull varchar(15), name notnull varchar(15), age notnull int, city notnull varchar(15), pincode notnull int, state notnull varchar(15), primarykey cust\_no)
4. SUPPLIER (s\_no notnull varchar(10), sname notnull varchar(15), age notnull int, city notnull varchar(15), primarykey sno)

sample instances of these tables are given below

PURCHASE :

ORDER_NO	CUSTNO	PRODNO	QUANTITY	ORDERDATE
O00001	C00002	P00003	2	20-JAN-16
O00002	C00003	P00002	1	27-JAN-16
O00003	C00004	P00002	3	28-JAN-16
O00004	C00006	P00001	3	20-FEB-16
O00005	C00003	P00005	4	07-APR-16
O00006	C00004	P00002	2	22-MAY-16
O00007	C00005	P00004	1	26-MAY-16

PRODUCT

PRODUCT_NO	DESCRIPTION	COMPANY	PRICE
P00001	12 W Flood Light	Wipro	5000
P00002	Laptop Adapter	Dell	1560
P00003	Tablet	HCL	11000
P00004	Garnet 50W led	Wipro	999
P00005	Laptop Charger	HCL	1690

CUSTOMER

CUST_NO	NAME	AGE	CITY	PINCODE	STATE
C00001	Ivan Bayross	35	Bombay	400054	Maharashtra
C00002	Vandana Saitwal	35	Madras	780001	Tamilnadu
C00003	Pramada Jaguste	55	Bombay	400057	Maharashtra
C00004	Basu Navindgi	45	Bombay	400056	Maharashtra
C00005	Ravi Sreedharan	25	Delhi	100001	Delhi
C00006	Rukmini	25	Madras	780001	Tamilnadu

SUPPLIER

S_NO	SNAME	AGE	CITY
S001	Ivan Bayross	35	Bombay
S002	NirmalaAgarwal	35	Madras
C003	Susmitha	55	Bombay
C004	BasuNavindgi	45	Bombay

C005	Ravi Sreedharan	25	Delhi
C006	Nanda Gopal	25	Madras

## Questions

### **Write nested Queries for the following**

1. List customer- numbers of all who purchased the product 'Laptop Adapter' during January
2. Get customer names of all who purchased P00002
3. List customer- numbers of all who have purchased products with cost more than Rs 1600
4. List customer- names of all who have purchased products with cost more than Rs 1500 during January
5. List customer- numbers of all who have purchased products with cost less than Rs 1600
6. Get customer numbers of purchases such that the qty is more than maximum qty of all purchases of C00002
7. Get the name of all the customers who have not purchased any item currently
8. Get the name of all customers who have purchased at least one item from Wipro

### **Write Correlated Queries for the following**

1. List all customer- number pairs such that cost of the item purchased by the first customer is less than that of second customer
2. List pairs of customer- names of all who has purchased products with cost less than Rs 1600
3. Get product nos of all products purchased by more than one customer
4. Get the name of customers who have purchased the item P00002
5. Get the name of customers who have not purchased the item P00002
6. get the name of customers who have purchased at least all those products purchased by C00004