National University of Computer and Emerging Sciences

In Lab Exercise

"Data Retrieval & Set Operations"

Database Systems

Fall 2024

Department of Computer Science
FAST-NU, Lahore, Pakistan

Database

For this in-lab exercise use the following **customer-salesman** schema.

1) Table Name: **salesman**

salesman_id	name	city	commission
5001	James Hoog	New York	0.15
5002	Nail Knite	Paris	0.13
5005	Pit Alex	London	0.11
5006	Mc Lyon	Paris	0.14
5007	Paul Adam	San Jose	0.13
5003	Lauson Hen	San Jose	0.12

2) Table Name: **orders**

ord_no	purch_amt	ord_date	customer_id	salesman_id
70001	150.5	2012-10-05	3005	5006
70009	270.65	2011-09-10	3001	5005
70002	65.26	2014-10-05	3002	5001
70004	110.5	2011-08-17	3009	5003
70007	948.5	2012-09-10	3005	5006
70005	2400.6	2010-07-27	3007	5001
70008	5760	2013-09-10	3002	5001
70010	1983.43	2010-10-10	3004	5005
70003	2480.4	2013-10-10	3009	5003
70012	250.45	2010-06-27	3008	5002
70011	75.29	2014-08-17	3003	NULL
70013	3045.6	2010-04-25	3002	NULL

3) Table Name: **customers**

customer_id	cust_name	city	grade	salesman_id
3002	Nick Rimando	New York	100	5001
3007	John Brad Davis	New York	200	5001
3005	Graham Zusi	California	200	5002
3008	Julian Green	London	300	5002
3004	Fabian Johnson	Paris	300	5006
3009	Geoff Cameron	Berlin	100	5003
3003	Jozy Altidor	Moscow	200	5007
3001	John Brad Guzan	London	Null	5005

Exercise

1. Identify all primary and foreign keys in the tables and add primary keys and foreign keys using Alter command.

2. Display salesman_id and city only from salesman table.

3. List all those customers that live in New York, in ascending order of their name. (Use where clause).

4. Change the column name 'name' from salesman table to 'full_name'.

5. List all those customers who have 'John' in their name and are either from London, Paris or NewYork. (use 'like' and '%' operator)

6. Display the name of customer name who have 'a' in their name. (use 'like' and '%' operator)

7. List all orders in descending order of their order date. (use order by).

8. List all the orders that were made in January (use built-in function).

9. List the year, week, dayofyear, month, day, weekday of all orders in the month of October. (use built in function)

10. List customers who have made order in 2012 as well as 2014.

11. Show those customers who have made order in 2012 but not in 2014.

12. Triple the purchase amount of all orders in the month of October. (use arithmetic operator).

13. Add 0.5 to the commission of all salesmen who belong to San Jose.

14. Find salesman name, orderdate, commission that have places the order.