National University of Computer and Emerging Sciences



In Lab Exercise

"Data Retrieval"

Database Systems Lab Spring 2025

Department of Computer Science FAST-NU, Lahore, Pakistan

Database

For this in-lab exercise use the following **customer-salesman** schema. Create database, tables and insert values in tables.

1) Table Name: salesman

| salesman_id | name | | city | | commission |
|-------------|------------|----------|--------|------|------------|
| | | | | | |
| 5001 | James Hoog | g New Yo | rk | 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 Her | 1 | San Jo | se | 0.12 |

2) Table Name: orders

| _id |
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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

Write queries for the following exercise.

- 1. List all those customers that live in New York, in ascending order of their name.
- 2. List all those customers who have 'John' in their name and are either from London, Paris or NewYork.
- 3. List all those customers who are either from London or New York.
- 4. List those orders whose purchase amount is greater than 500.
- 5. List all salesmen whose second character in their name contain 'a'.
- 6. Add 0.5 to the commission of all salesmen who belong to San Jose.
- 7. List all orders in descending order of their order date.
- 8. Get the first name of all salesmen and change the column name from name to firstname.
- 9. List all the orders that were made in January (Hint: use some built-in function).
- 10. List the year, week, dayofyear, month, day, weekday of all orders in the month of October. (Hint: use some built-in function).
- 11. Triple the purchase amount of all orders in the month of October.
- 12. Show those customers who have made order in 2011 or in 2013.
- 13. Show the details of the salesman who has max commission. (Hint: Order your data in descending order and use top row, search for top key word in MS SQL)