FROM Orders

17/09/2025

Exercise 1

1) SELECT *
From Employees

2) SELECT Distinct Department
FROM Employees

Department
IT
HR
Finance
Marketing

3) SELECT First_name, last_name
FROM Employees
ORDER By ~~DESC~~ Salary DESC

~~First~~ First_name	Last_name
Emily	Davis
Mike	Johnson
Robert	Wilson
John	Doe
Sarah	Brown
Daniel	Clark
David	White
Jessica	Moore
Laura	Hall

4) SELECT First-name, Last-name, Salary
FROM Employees
ORDER By Salary DESC
Limit 5

First-name	Last name	Salary
Emily	Davis	62 000
Mike	Johnson	60 000
Robert	Wilson	59 000
John	Doe	55 000
Sarah	Brown	53 000

5 SELECT ~~Fis~~ First_name, Department
FROM Employees
WHERE Department ~~IN~~ = "IT"

First_name	Department
John	IT
Sarah	IT
Emily	IT
Laura	IT

6 SELECT First_name, Last-name, Salary
FROM Employees
WHERE Department = "Finance" AND Salary > ~~58~~ 58 000

First_name	Department	Salary
~~Emily~~ Robert	Finance	59 000
~~Mi~~ Mike	Finance	60 000

7 SELECT First_name, Department
FROM Employees
WHERE Department = "HR" OR Department = "Marketing";

8 SELECT First_name, Department
FROM Employees
WHERE Department != "IT"

9 SELECT First_name - Department
FROM Employees
~~WHERE Department = "HR" or Depart~~
WHERE Department IN ("HR", "IT") OR Department = "Finance"

10 SELECT First_name, department, Salary, City
FROM Employees
WHERE Department = "IT" AND Salary > 50000 AND City = "NY"

11 SELECT First_name, ~~Department~~ last_name,
FROM Employees
WHERE ~~De Salary~~ Department = "Finance" OR Department = "Marketing
AND Salary > 52 000
ORDER By Salary DESC

12 SELECT ~~City~~ Distinct City
FROM employees
WHERE City Not IN ("IT", "HR")

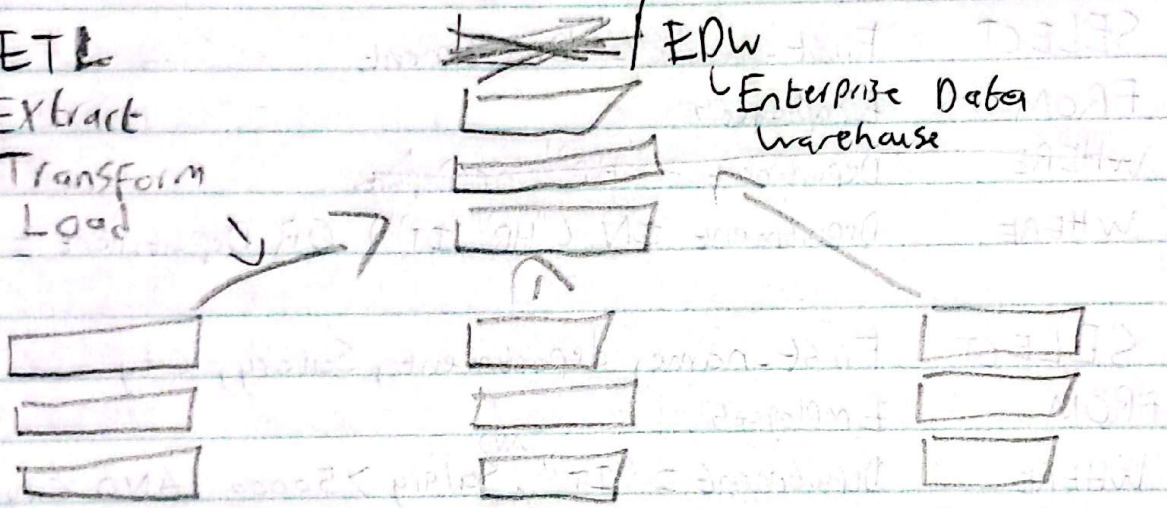
13 SELECT First_name
FROM Employees
WHERE Department Not IN ("Finance") AND Salary > 50 000
ORDER By hire_date ~~as~~ ASC

14 SELECT First_name, Department, City
FROM Employees
WHERE City = 'Chicago' OR City = "Los Angeles AND
Department = "IT" OR Department "marketing"
Limit 3

~~17/09~~ 17/09/2025

Online analytical processing
↳ allows complex SQL

ETL
Extract
Transform
Load



Online transactional Processing (OLTP)
Relational Database

normally works during
during working hours

- Data from a data warehouse comes from different sources
- Since Data comes from different sources, we need to combine different table in order to perform analysis.

1)

ID	First_name	last_name	department	Salary	hire_date	City
1	John	Doe	IT	56000	2018-06-15	NY
2	Jane	Smith	HR	48000	2019-07-20	Chicago
3	Mike	Johnson	Finance	60000	2017-09-30	LA
4	Sarah	Brown	IT	53000	2021-03-25	NY
5	David	White	Marketing	52000	2016-04-10	San Fran
6	Emily	Davis	IT	62000	2015-02-14	Chicago
7	Robert	Wilson	Finance	59000	2019-10-01	Houston
8	Jessica	Moore	HR	51000	2018-05-22	LA
9	Daniel	Clark	Marketing	53000	2022-06-01	Chicago
10	Laura	Hall	IT	50000	2020-08-10	San Fran

7)

Firstname	Department
Jane	HR
David	Marketing
Jessica	HR
Daniel	Marketing

8)

First_name	Department
Jane	HR
Mike	Finance
David	Marketing
Robert	Finance
Jessica	HR
~~Marketing~~ Daniel	Marketing

9)

First_name	department
John	IT
Jane	HR
Mike	Finance
Sarah	IT
Emily	IT
Robert	Finance
Jessica	HR
Laura	IT

10)

First_name	department	Salary	City
John	IT	55000	~~Ney~~ New york
Sarah	IT	53000	New york

11

First_name	last_name
Mike	Johnson
Robert	Wilson

12

City
Los Angeles
San Francisco
Houston
Chicago

13)

First_name
Emily
David
Jessica
John
Sarah
Daniel

14

First_name	Department,	City
Emily	IT	Chicago
Daniel	Marketing	Chicago