MANAGED BY
RUBY THALIB AI & DATA CONSULTANT

DATA ENGINEERING

MOST SCOPE

INTERACTIVE CLASS, 2024

- **Most SQL Query**
- **Transform Data with SQL**
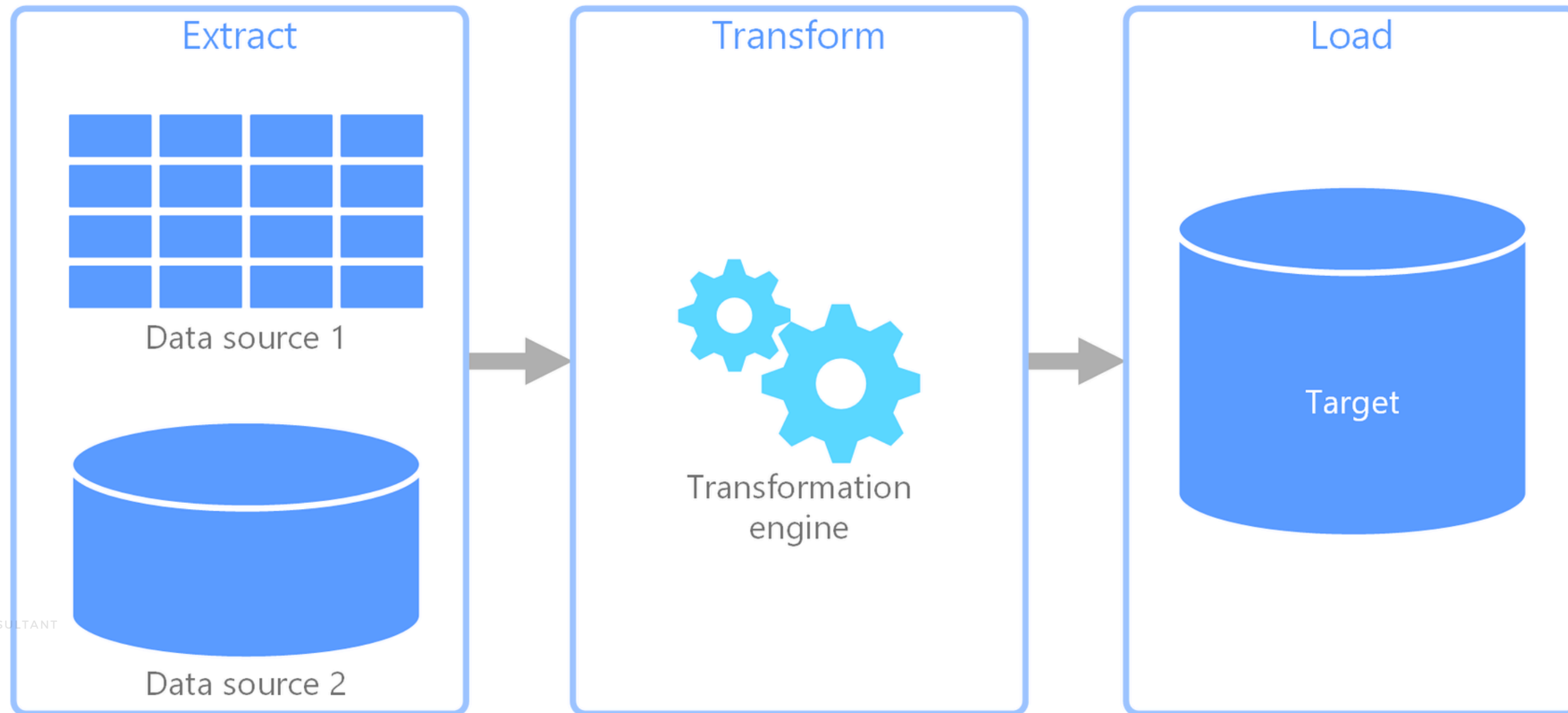
• Most SQL Query – into Advance

Testing Query	Partitions
Analyzing Query runtime	Partitioning divides a table into smaller, more manageable parts based on a column value. Note: To create a partitioned table, you'd use the CREATE TABLE statement with partitioning options.

Common Table Expression (CTE)	Materialized View (MV)
A CTE is a temporary result set that you can reference within a single SQL statement. SQL	A materialized view is a database object that stores the results of a query.

Most SQL Query – into Advance

Testing Query	Partitions

QUERY PLAN
► Sort (cost=169.51..172.01 rows=1000 width=87)
   Sort Key: f.title
   -> Hash Join (cost=41.93..119.68 rows=1000 width=87)
      Hash Cond: (f.film_id = fc.film_id)
      -> Seq Scan on film f (cost=0.00..64.00 rows=1000 width=19)
      -> Hash (cost=29.43..29.43 rows=1000 width=70)
         -> Hash Join (cost=1.36..29.43 rows=1000 width=70)
            Hash Cond: (fc.category_id = c.category_id)
            -> Seq Scan on film_category fc (cost=0.00..16.00 rows=1000 width=4)
            -> Hash (cost=1.16..1.16 rows=16 width=72)
               -> Seq Scan on category c (cost=0.00..1.16 rows=16 width=72)
	Partitioned Table
	
	people_partitioned
	
	Partitions
	
	people_partitioned_
	birthdays_1800_to_1850 people_partitioned_
	birthdays_1850_to_1900 people_partitioned_
	birthdays_1900_to_1950 people_partitioned_
	birthdays_1950_to_2000

Common Table Expression (CTE)	**Materialized View (MV)**
with ■ as (■■■) select * from ■ where ■■■	MView Table Fast Refresh SQL> SELECT ... MView Log

• Transform Data

Extract

Data source 1

Data source 2

Transform

Transformation engine

Load

Target

• Transform Data

DATETIME **VS.** TIMESTAMP

Aggregate Function in SQL

Count()

Sum()

AVG()

Max()

Min()

SUBSTRING – Return characters within another string

SQL Server

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

SUBSTRING('SQL Server',5,3)

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DAY 3 TRIAL :D