

A series of light blue circuit lines with circular nodes, extending from the left edge of the slide towards the central text box.

BMBM5023

**DIGITAL INTELLIGENCE AND
FUTURE DEVELOPMENT**



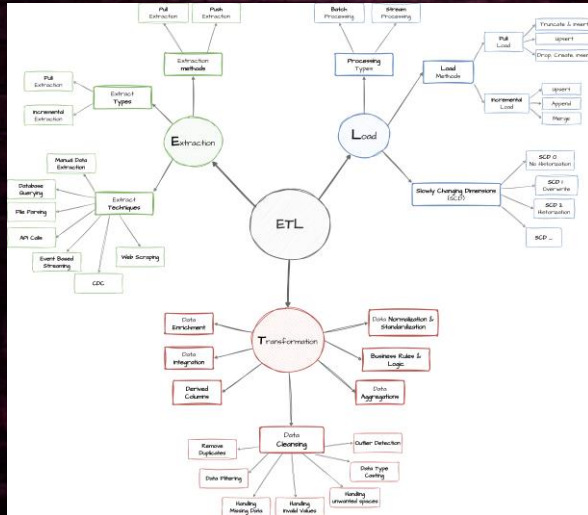
**AN OVERVIEW OF BUSINESS
INTELLIGENCE & ANALYTICS**

Recap...

What do you remember from last week?



ETL!



What does it stand for?

Data architecture we discussed 4 types?

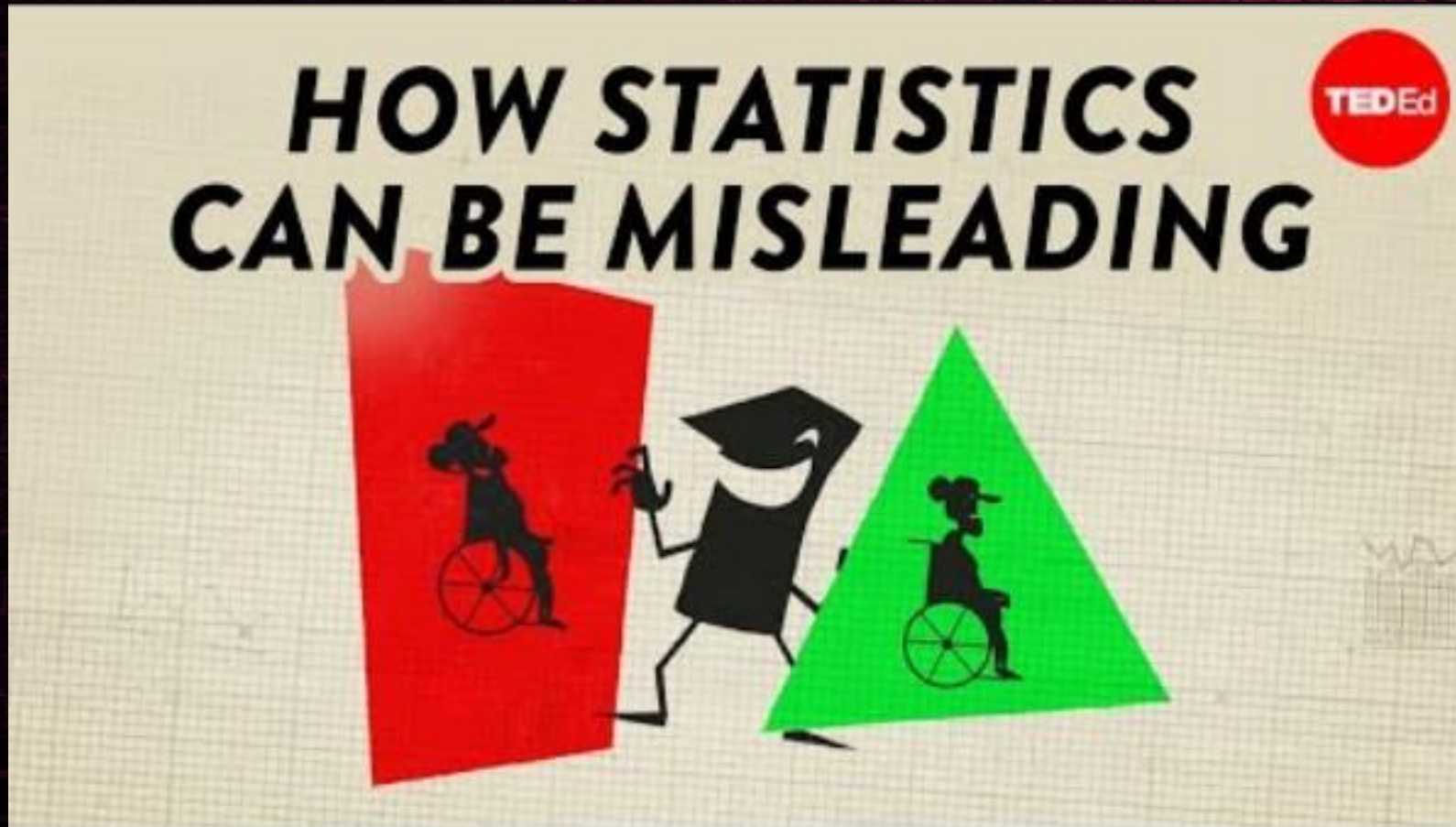
Data Warehouse
Data lake:
Data Lakehouse:
Data Mesh:

Extract – Uploading the raw data incrementally or large data dumps !

Transform – Cleaning integration, format, in accordance with our systems

Load – Store the useable data in an accessible format and location

CRITICAL PERSPECTIVE



NEXT WEEK WE WILL BEGIN THE SESSION
WITH YOU EXPLAINING TO ME
THE CONCEPT OF SIMPSON'S PARADOX!

AIMS FOR TODAY

- Understand what a database is
- Know where SQL fits in the data ecosystem
- Gain firsthand experience with SQL



SQL

Structured Query Language

Developed in the 1970s by Donald Chamberlin and Raymond Boyce
It was initially called structured English query language (SEQUEL) before being shortened to SQL; it is now the **universal standard for relational databases.**



WHAT DOES IT LOOK LIKE?

It lets you **talk to data** in human-readable commands E.G:

- **SELECT** – retrieve data
- **INSERT** – add new data
- **UPDATE** – modify data
- **DELETE** – remove data

Data columns :

- Customers
- Country
- Spend
- Job
- * = All

Instead of saying 'show me all customers from France', you would write:

```
SELECT * (select all from 'columns')  
FROM Customer Table (the name of the Table)  
WHERE country = 'France'
```



EXAMPLE-

-- Show all data

```
SELECT * FROM Customer Table;
```

-- Show only names and countries

```
SELECT name, country FROM customers;
```

-- Filter by country

```
SELECT * FROM customer table WHERE  
country = 'USA';
```

-- Filter by condition

```
SELECT name, age FROM customers  
WHERE age > 30;
```

Customer Table

id	name	country	age
1	Alice	USA	32
2	Ben	France	28
3	Carla	USA	40
4	Diego	Mexico	35

Instead of saying 'show me all customers from France', you would write:

```
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FROM Customer Table (the name of the Table)  
WHERE country = 'France'
```

SQL IN 15 MINS



LEARN

BASIC SQL

IN 15 MINUTES

PART 1

ACTIVITY

Lets play SQL
Island!

See how far you
can get in an hour
and a half



<https://sql-island.informatik.uni-kl.de/#>

THE USUAL MISTAKES

DATABASE STAR

```
SELECT *  
FROM table;
```



CRITICAL PERSPECTIVE



"Most business is probabilistic.
But everybody in business wants
to prove and pretend it's
deterministic.

So every spreadsheet in some
way is an act of pretense. Because
it's past information which you
pretend has wonderful predictive
value. As if it's Laplace's Demon.
But it really doesn't, because
weird shit happens out of
nowhere all the time."

Rory Sutherland (2025)
Behavioural economist



NEXT WEEK WE WILL BEGIN THE SESSION
WITH YOU EXPLAINING TO ME
THE CONCEPT OF LAPLACE'S DEMON!

