snowflake®

GROUP BY Data Heroes;

How to execute the T in ELT

DAAN BAKBOORD, MANAGER DATA & ANALYTICS at PONG BV I JULY 2020

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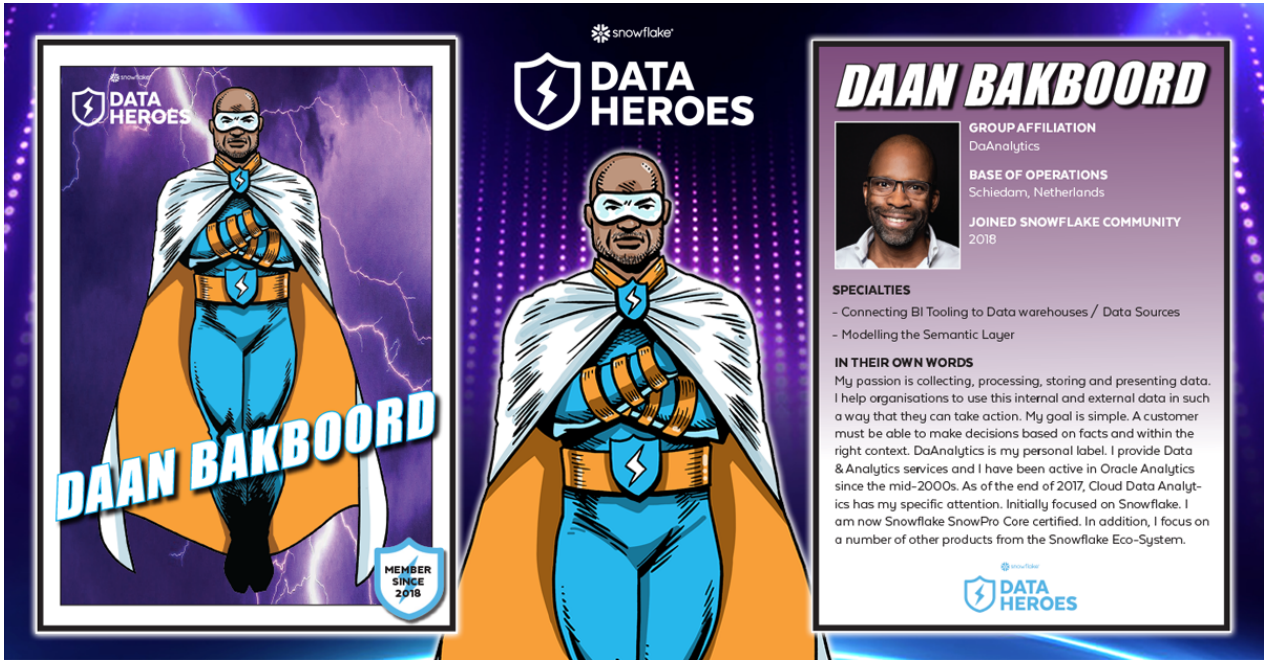
DAAN BAKBOORD - DAANALYTICS



http://www.daanbakboord.com

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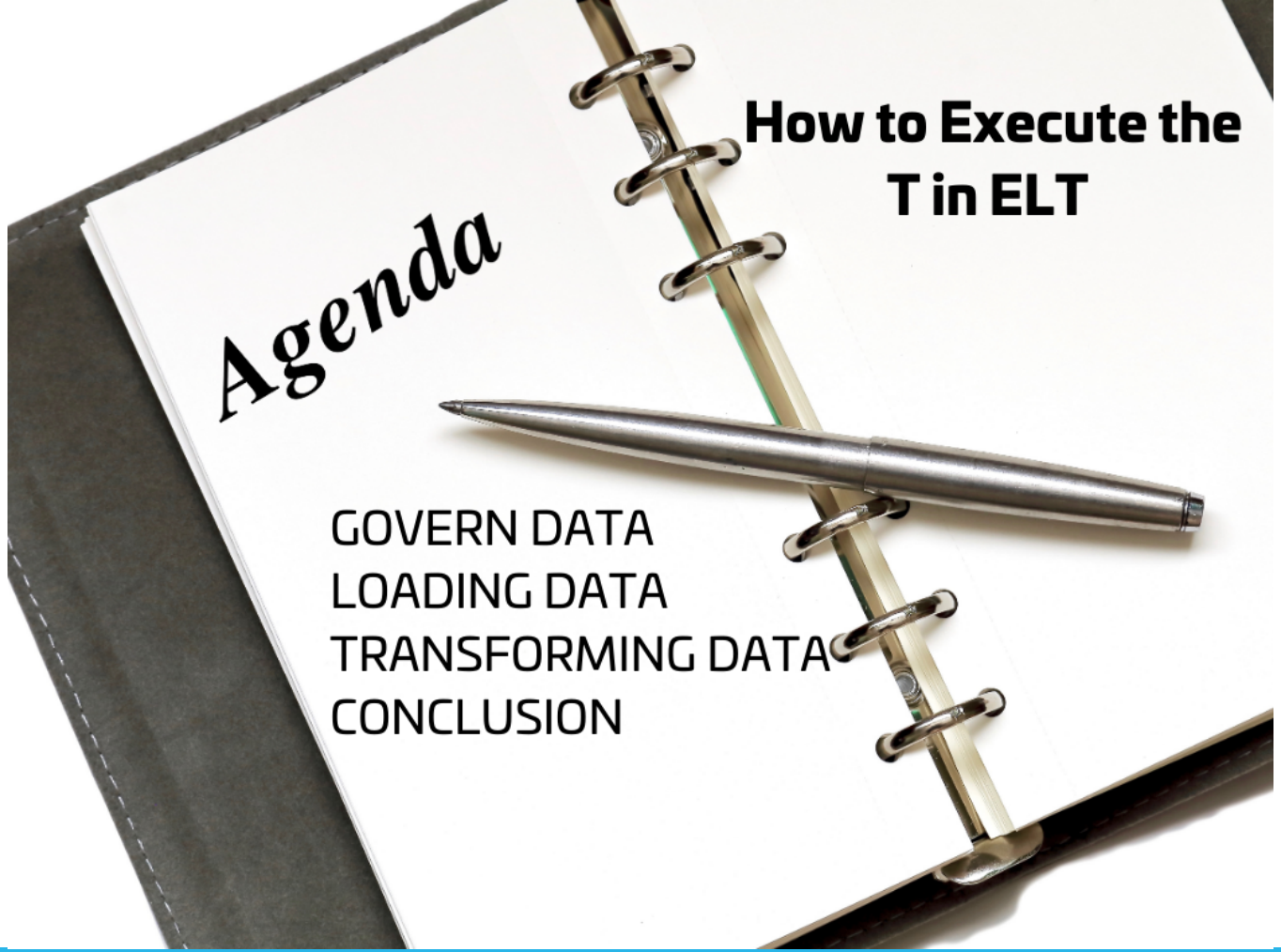

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GOVERN DATA

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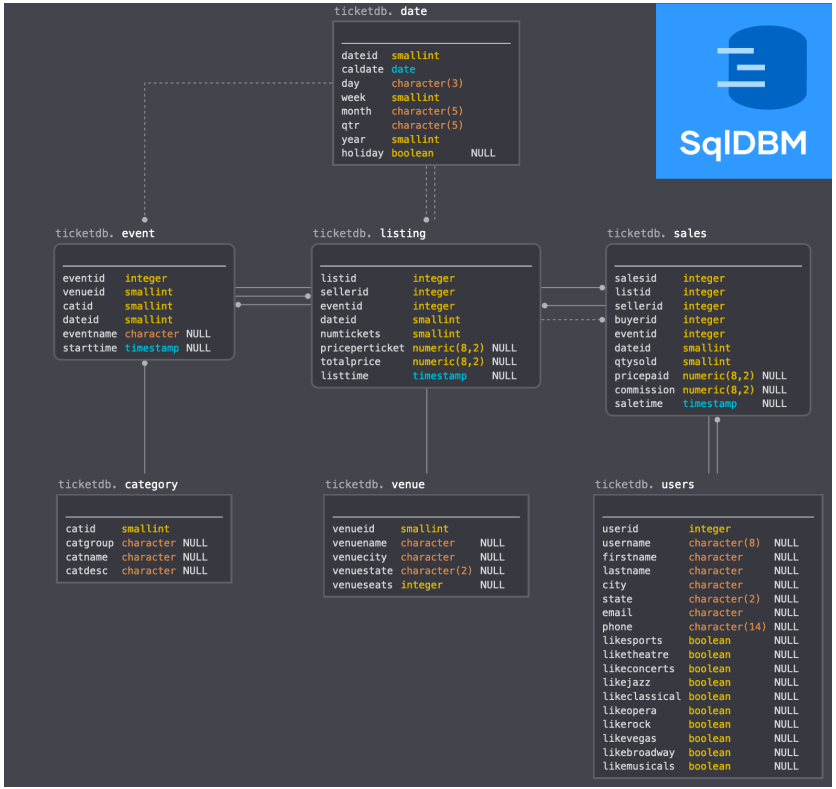
SQLDBM – DATABASE MODELING

- Database Modelling
- Project Conversion
- DB Documentation
- Compare Revisions
- Forward Engineering
  - Snowflake Direct Db Connection
- Reverse Engineering
  - Bring your database

“Without writing a single line of code”



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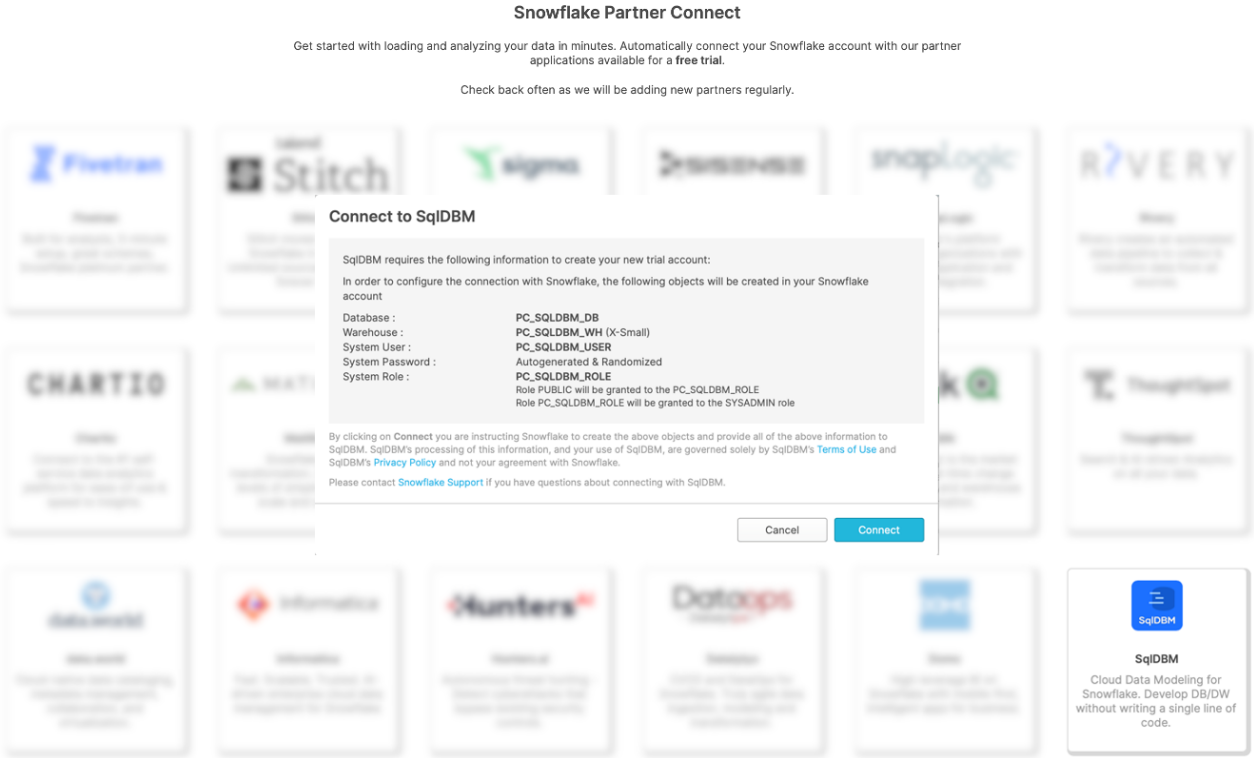
SQLDBM – PARTNERCONNECT

"Try for yourself!"



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LOADING DATA

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PARTNER ECO SYSTEM

Select Partner Type: ETL / ELT / DATA MOVEMENT

FIVETRAN

INFORMATICA

MATILLION

MPARTICLE

NEXT PATHWAY

RIVERY

SESAME SOFTWARE

SEGMENT

STITCH

ABINITIO

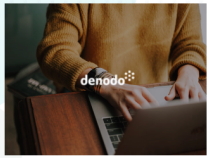
SYNCSORT

TAMR

WANDISCO

XPLENTY

ZETARIS

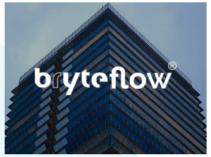


DENODO

DIYOTTA

ETLEAP

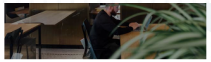
HEVO DATA



BRYTEFLOW

CDATA

CLOVERETL


COMPILERWORKS

HVR

IRI

LOOME

LYFTRON

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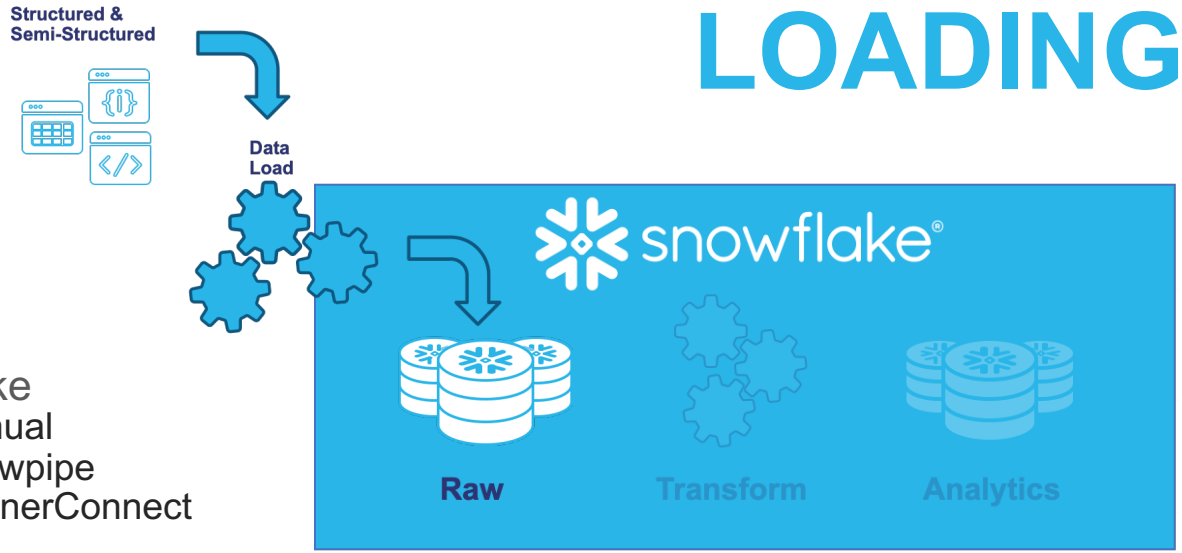
LOADING DATA



- Snowflake
  - Manual
  - Snowpipe
  - PartnerConnect
- Fivetran
- Matillion
- Informatica

“SQL is THE Language to Query Data”

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TRANSFORMING DATA

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TRANSFORMING DATA

- Cleansing
  - formatting
  - validating
- Combining
  - joining
  - Integrating
- Aggregating
  - summarizing
  - cross-column calcs
- Separating
  - filtering
  - column-splitting

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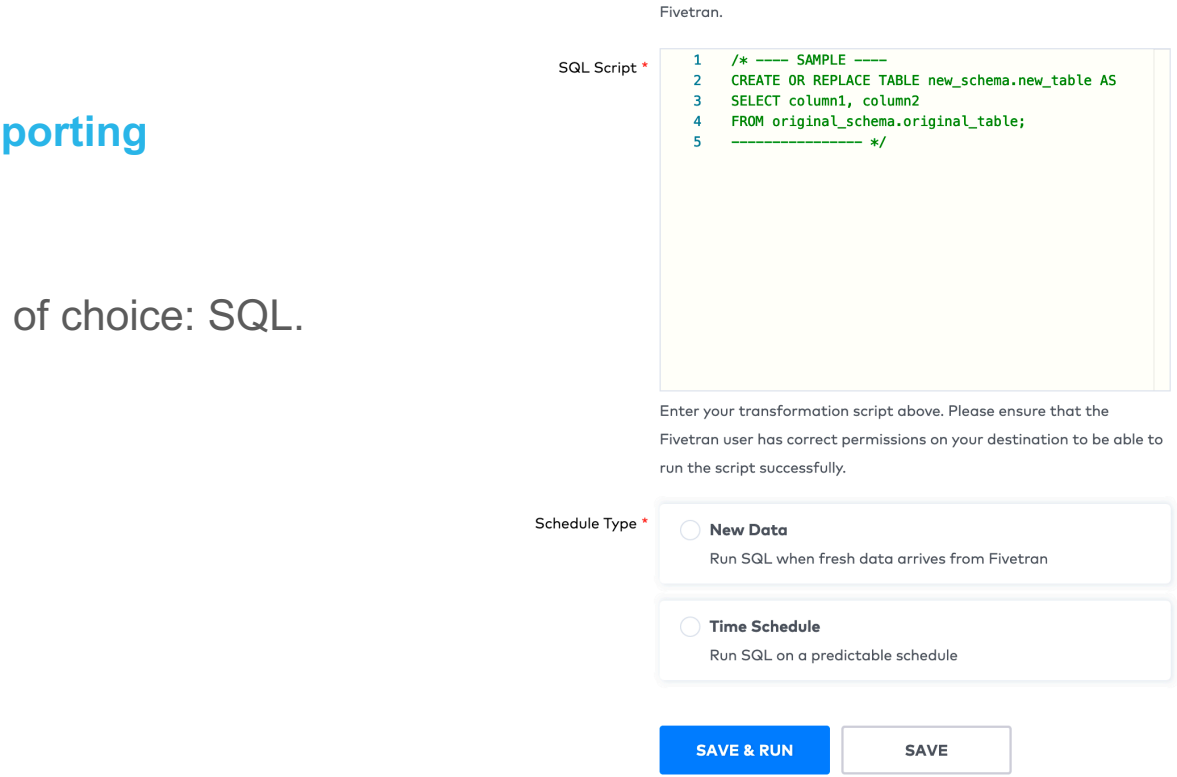
FIVETRAN TRANSFORMATIONS

Prepare your Data for Reporting

- Easy to use
- Data analysts' language of choice: SQL.
- Create Table
  - Name & Schema
- Schedule of choosing



Fivetran

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DBT; THE T IN ELT

- Data already in DWH
- Logic in SQL
- Transformation in batch
- Transformations are idempotent

DBT is NOT an ETL/EL-T Tool!

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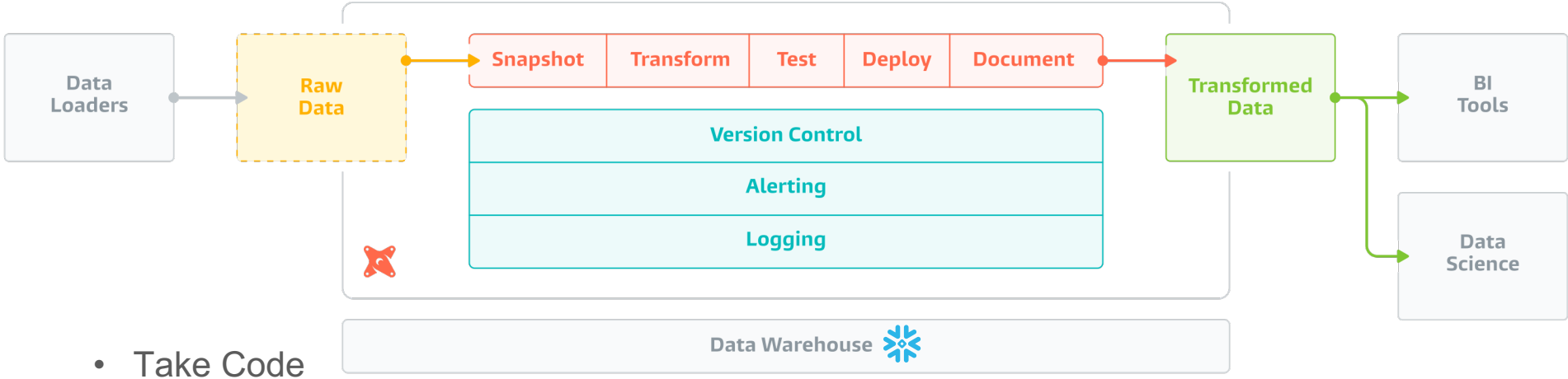
DBT IN ACTION



- Take Code
- Compile it to SQL
- Run against the Database

Apache Airflow

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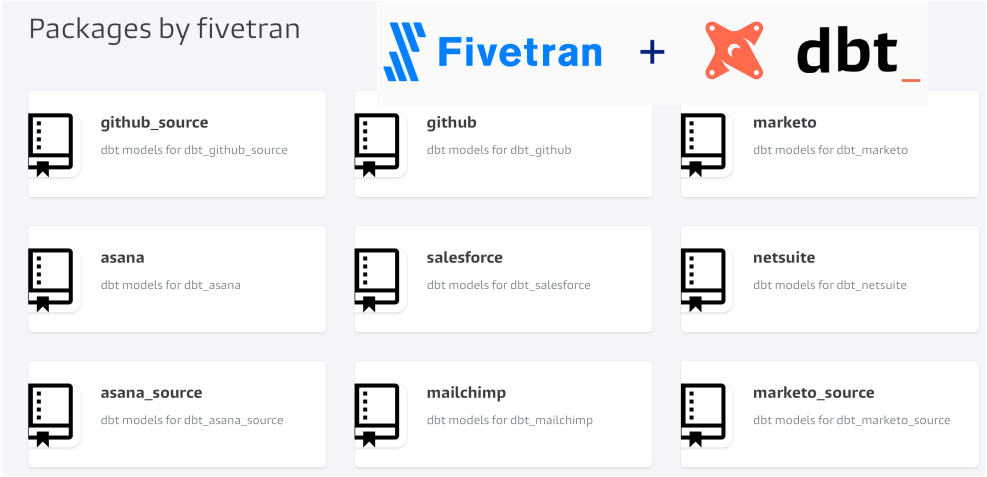
FIVETRAN & DBT

- Fivetran
  - (E) – Extract from Data Source
  - (L) – Load Data into Cloud DWH
- DBT
  - (T) Transform Data in Cloud DWH



EL-T using the Best of both Worlds!

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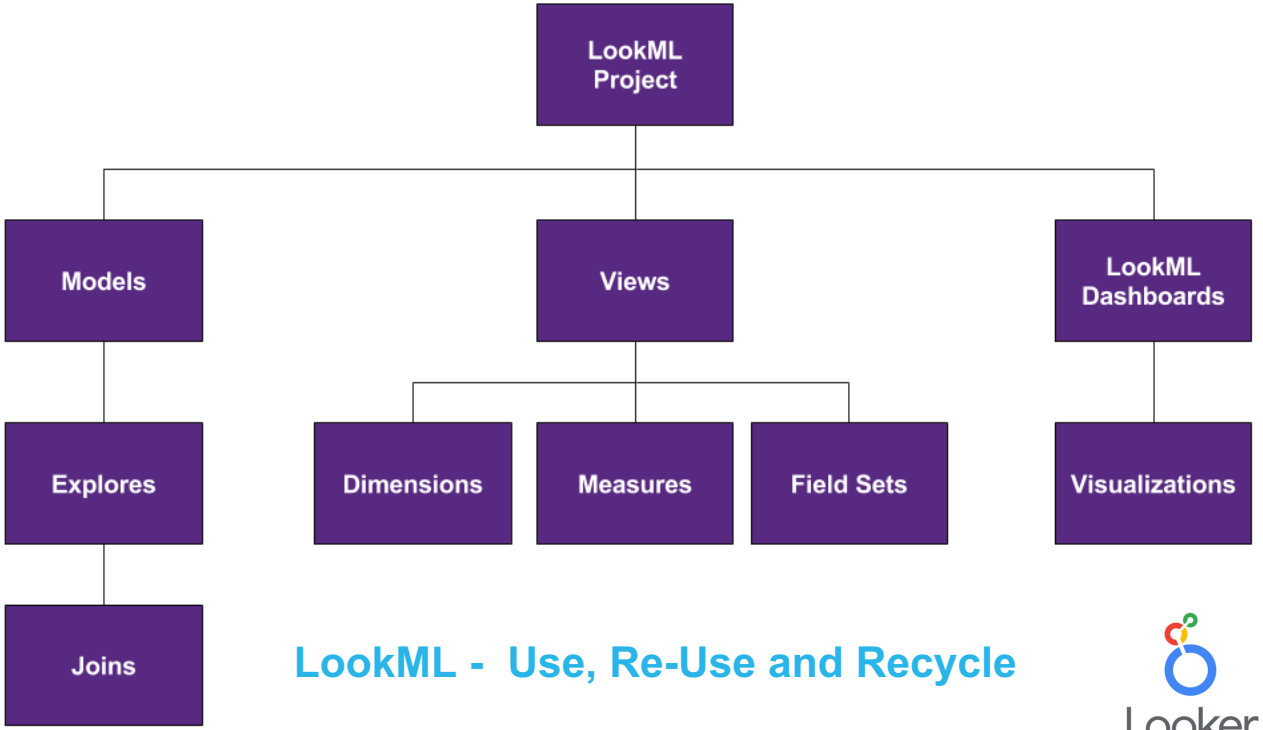
LOOKER'S APPROACH TO DATA MODELLING

02_users.view

```
view: users {
  sql_table_name: users ;;
  ## Demographics ##

  dimension: id {
    primary_key: yes
    type: number
    sql: ${TABLE}.id ;;
    tags: ["user_id"]
  }

  dimension: first_name {
    hidden: yes
    sql: INITCAP(${TABLE}.first_name) ;;
  }

  dimension: last_name {
    hidden: yes
    sql: INITCAP(${TABLE}.last_name) ;;
  }

  dimension: name {
    sql: ${first_name} || ' ' || ${last_name} ;;
  }

  dimension: age {
    type: number
    sql: ${TABLE}.age ;;
  }

  dimension: age_tier {
    type: tier
    tiers: [0, 10, 20, 30, 40, 50, 60, 70]
    style: integer
    sql: ${age} ;;
  }

  dimension: gender {
    sql: ${TABLE}.gender ;;
  }

  dimension: gender_short {
    sql: LOWER(LEFT(${gender},1)) ;;
  }
```



LookML - Use, Re-Use and Recycle

Looker

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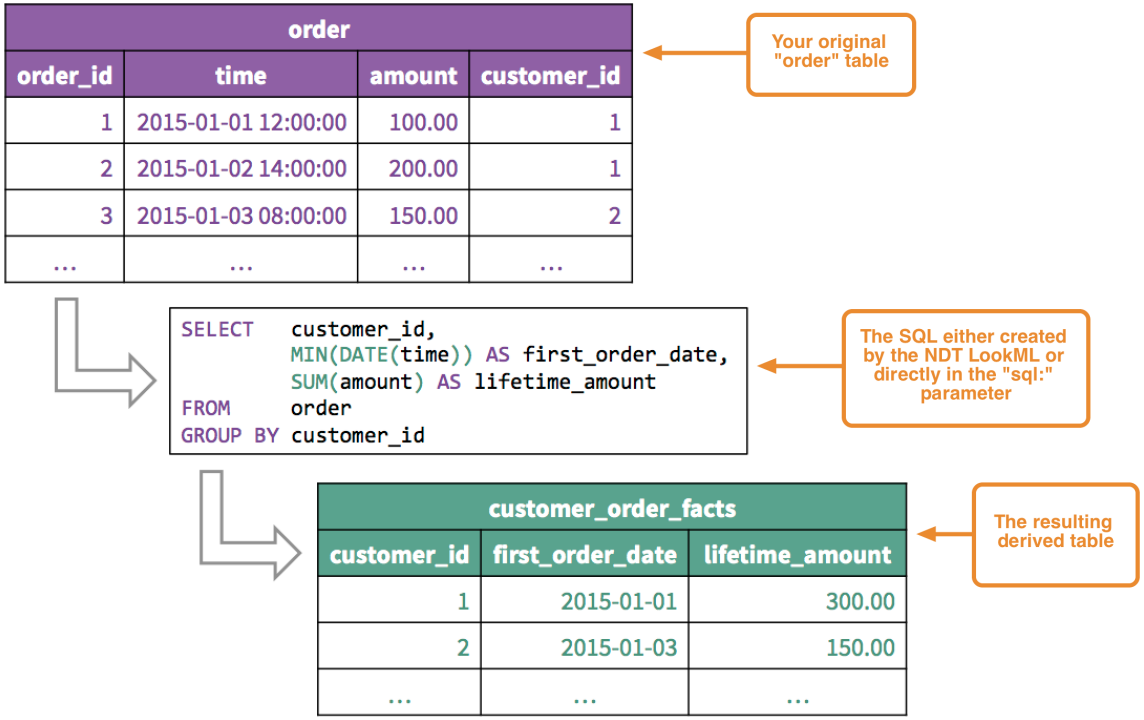
LOOKER DERIVED TABLE

- Native – LookML
- SQL-based
- Pesisted
  - Stored outside Looker
  - Refreshed on schedule



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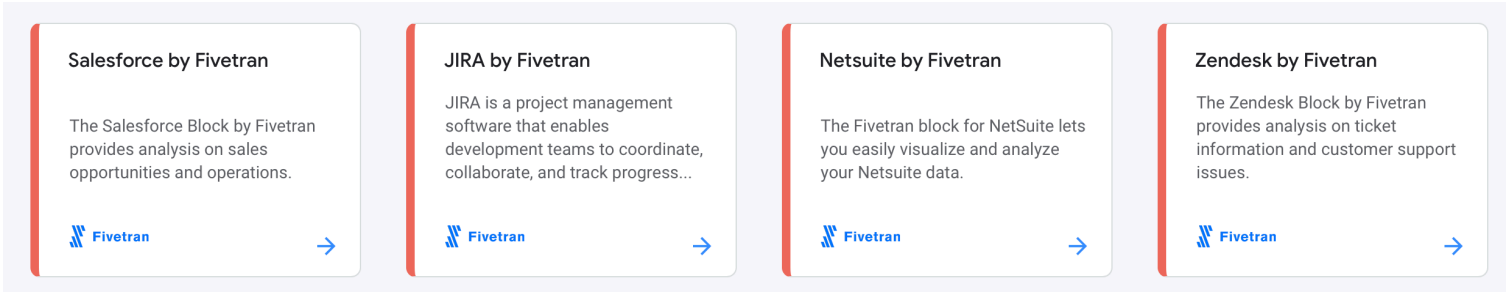
FIVETRAN & LOOKER

- Looker Blocks®
  - Library of LookML's
- Components of Business Logic
- Reusable & Customizable



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GETTING STARTED

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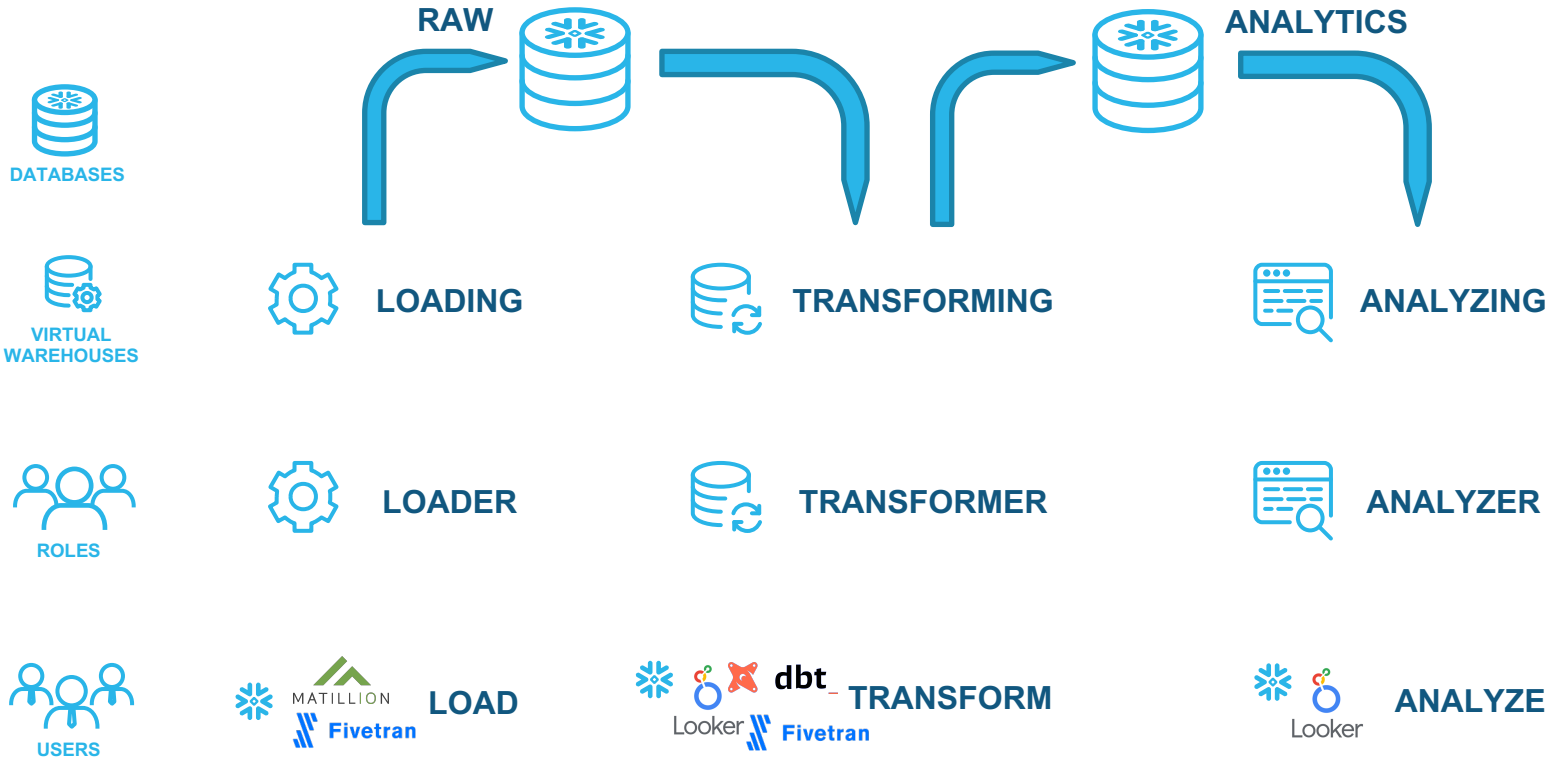
SNOWFLAKE MODERN DATA ARCHITECTURE



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CONCLUSION

- Ease of Use
  - DwaaS
- Flexibility
- Snowflake eco-system

“SQL is THE Language to Query Data”

- ANSI-SQL
- Fully ACID compliant

“Simply Load and Query Data”

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GROUP BY

Data Heroes;

THANK YOU

snowflake®

DATA HEROES

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