

Narrator

**How to finally get
Self-Service by ditching
your Star Schema**

**Ahmed Elsamadisi
CEO**

The Data Process



Request

A stakeholder submits a request

5 Minutes



Warehouse

A data analyst finds the data in the warehouse

10 Minutes



Data Preparation

An analyst writes SQL to create or update a materialized view that can answer the question

7 hours



Dashboard

A dashboard is built so future people can see the answer to this question

30 Minutes

The Data Process



At WeWork

2015



Request

20 Q/mo

5 Minutes



Warehouse

PostgreSQL

30 Minutes



Data Preparation

pg_cron

7 hours



Dashboard

CHARTIO

45 Minutes

The Data Process



At WeWork



Request



Warehouse



Data Preparation



Dashboard

2015

20 Q/mo

~~PostgreSQL~~

~~pg_ion~~

CHARTIO

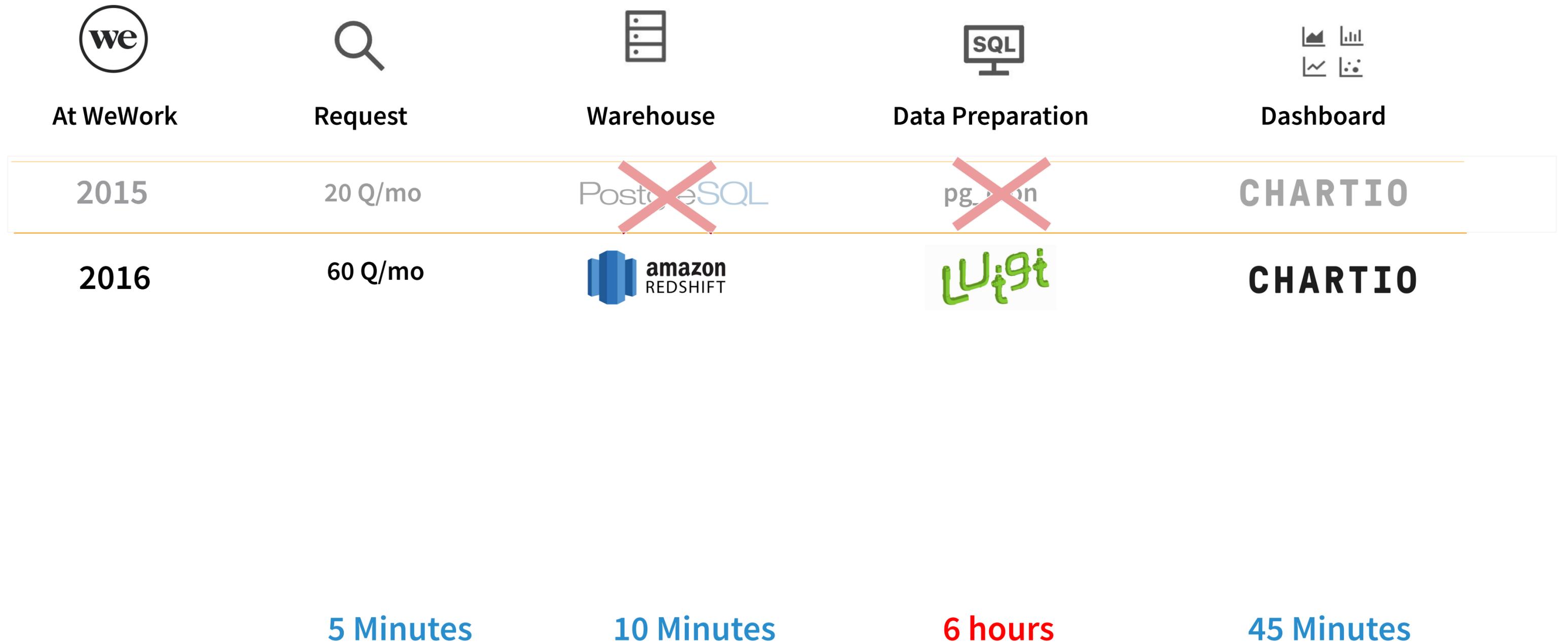
5 Minutes

30 Minutes

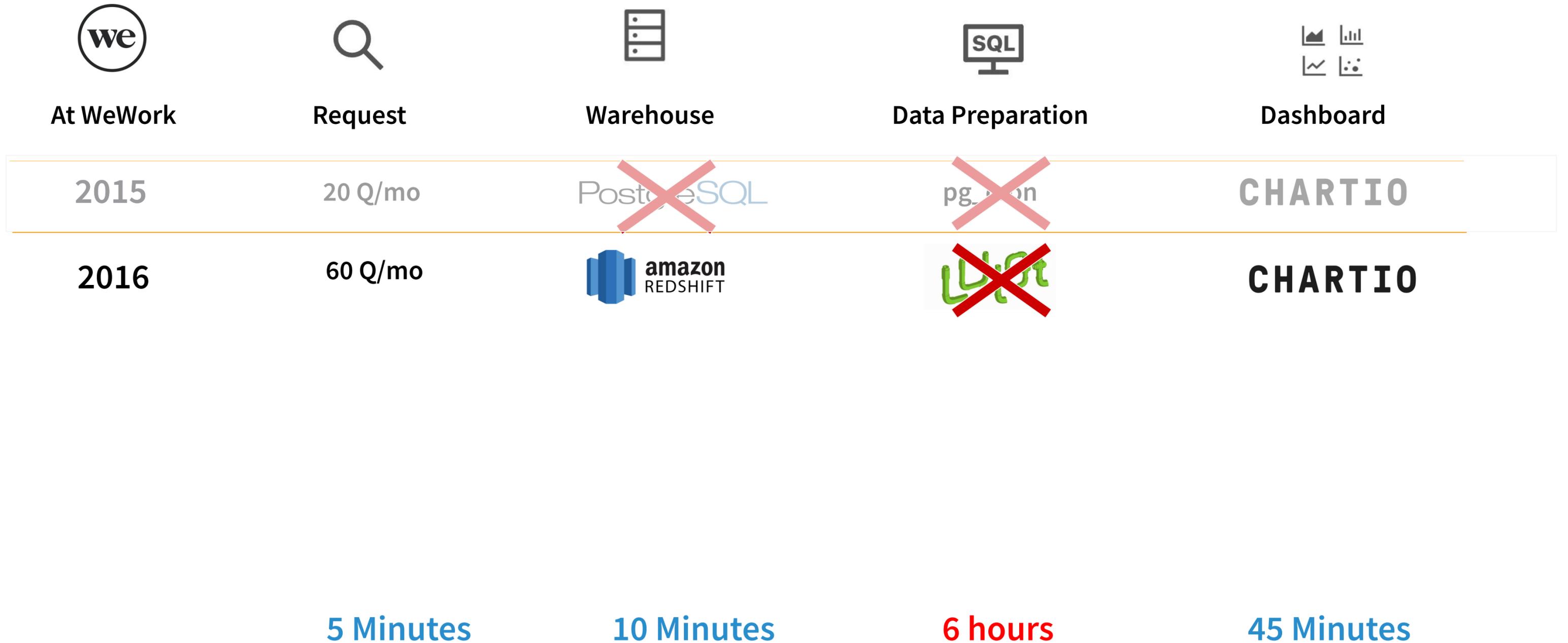
7 hours

45 Minutes

The Data Process



The Data Process



The Data Process



At WeWork



Request



Warehouse



Data Preparation



Dashboard

2015	20 Q/mo	PostgreSQL	pg_ion	CHARTIO
2016	60 Q/mo	amazon REDSHIFT	LLSt	CHARTIO
2016	120 Q/mo	amazon REDSHIFT	Apache Airflow	CHARTIO + a b l e a u

5 Minutes

30 Minutes

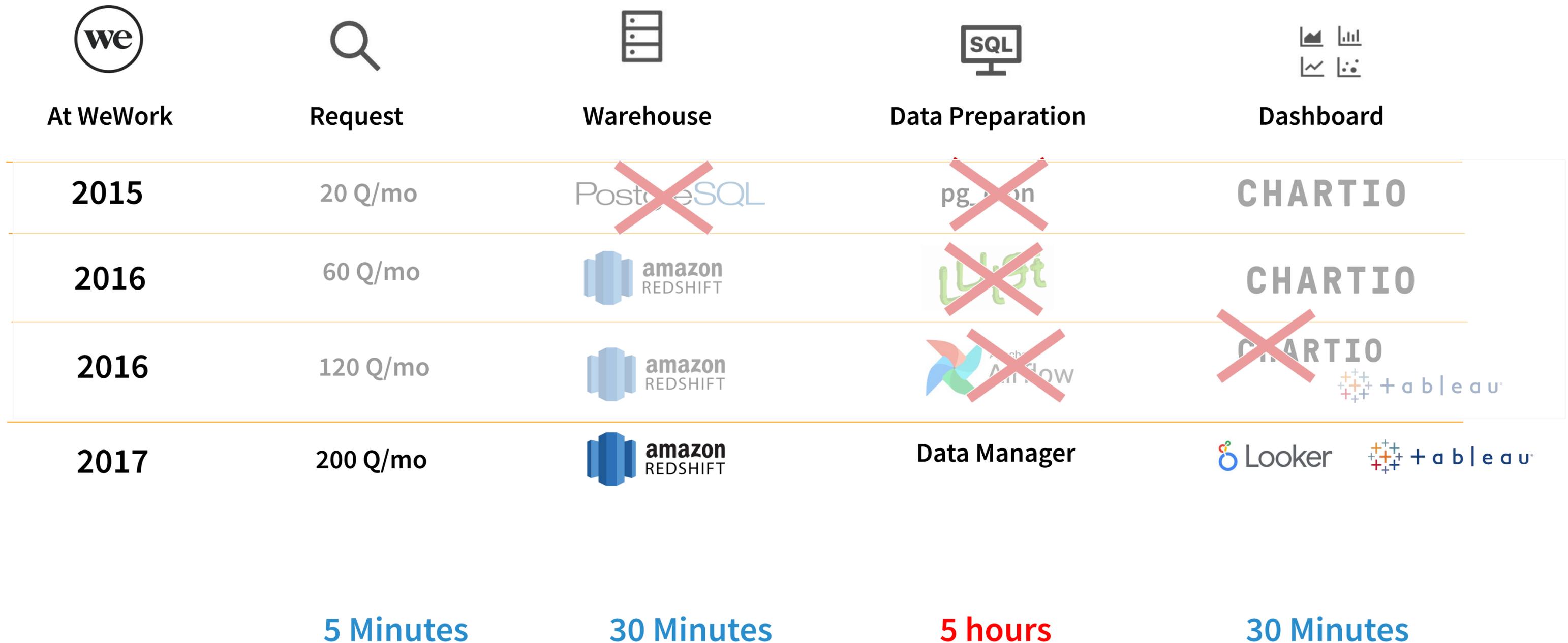
5 hours

30 Minutes

The Data Process



The Data Process



The Data Process



At WeWork

Request

Warehouse

Data Preparation

Dashboard

2015	20 Q/mo	PostgreSQL	pg_ion	CHARTIO
2016	60 Q/mo	amazon REDSHIFT	LLSt	CHARTIO
2016	120 Q/mo	amazon REDSHIFT	Apache Airflow	CHARTIO + a b e a u
2017	200 Q/mo	amazon REDSHIFT	Data Manager	Looker + a b e a u

5 Minutes

30 Minutes

5 hours

30 Minutes

The Data Process



The Problem:

New questions often require changes
to our transformation layer

Data model changes are needed for the *new* data questions

Data model changes are needed for the *new* data questions

Qs BUILT FOR A STAR SCHEMA

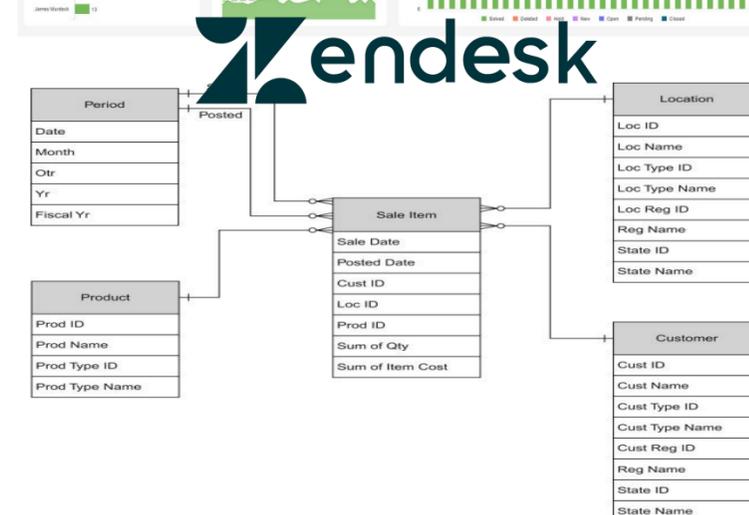
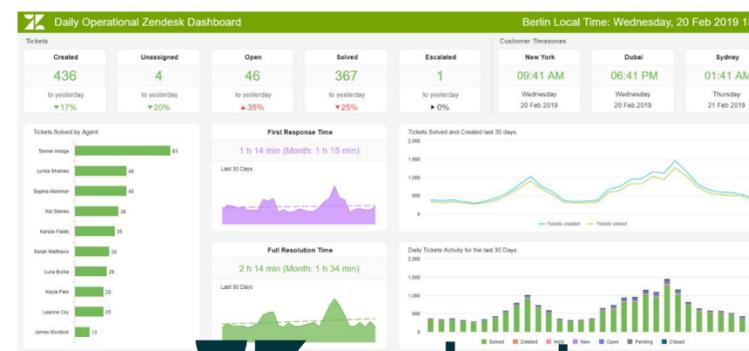
- What's the average rating for **support tickets**?
- What percentage of **tickets** were billing related?
- How many **tickets** does Rep A receive per week?

Data model changes are needed for the *new* data questions

Qs BUILT FOR A STAR SCHEMA

- What's the average rating for **support tickets**?
- What percentage of **tickets** were billing related?
- How many **tickets** does Rep A receive per week?

SINGLE SYSTEM 



Data model changes are needed for the *new* data questions

Qs BUILT FOR A STAR SCHEMA

- What's the average rating for support tickets?
- What percentage of tickets were billing related?
- How many tickets does Rep A receive per week?

Qs THAT REQUIRE THE DATA TEAM

Data model changes are needed for the *new* data questions

Qs BUILT FOR A STAR SCHEMA

- What's the average rating for support tickets?
- What percentage of tickets were billing related?
- How many tickets does Rep A receive per week?

Qs THAT REQUIRE THE DATA TEAM

- Are people still **submitting tickets** after **viewing the docs site**?
- What **ticket types** lead to the highest **churn rate**?
- What is the best **email campaign** to increase **orders**?

Data model changes are needed for the *new* data questions

Qs BUILT FOR A STAR SCHEMA

- What's the average rating for support tickets?
- What percentage of tickets were billing related?
- How many tickets does Rep A receive per week?

Qs THAT REQUIRE THE DATA TEAM

- Are people still **submitting tickets** after **viewing the docs site**?
- What **ticket types** lead to the highest **churn rate**?
- What is the best **email campaign** to increase **orders**?

**STAR SCHEMA WASN'T
BUILT FOR THIS**

The Root Problem: JOINS

WHY?

Every new question requires unique
combination of data

→ → → Hacky JOIN 🙄

The Root Problem: JOINS

WHY?

Every new question requires unique
combination of data

→ → → Hacky JOIN 🙄

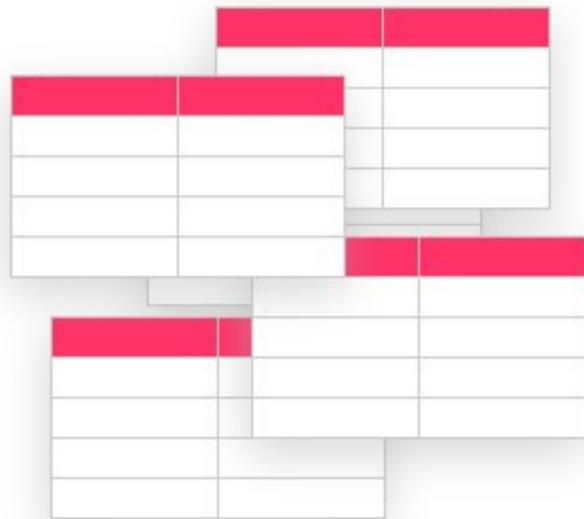


The Solution:

Remove pre-defined JOINS by finding a data model that can relate any data/
answer any question

The secret is the Activity Schema

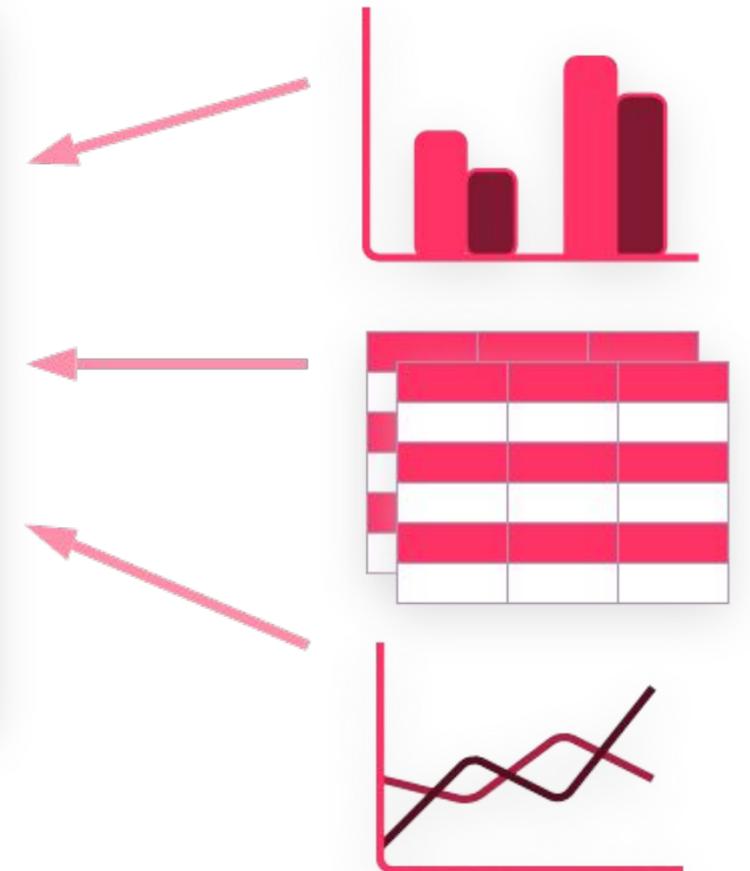
SOURCE TABLES



ACTIVITY SCHEMA

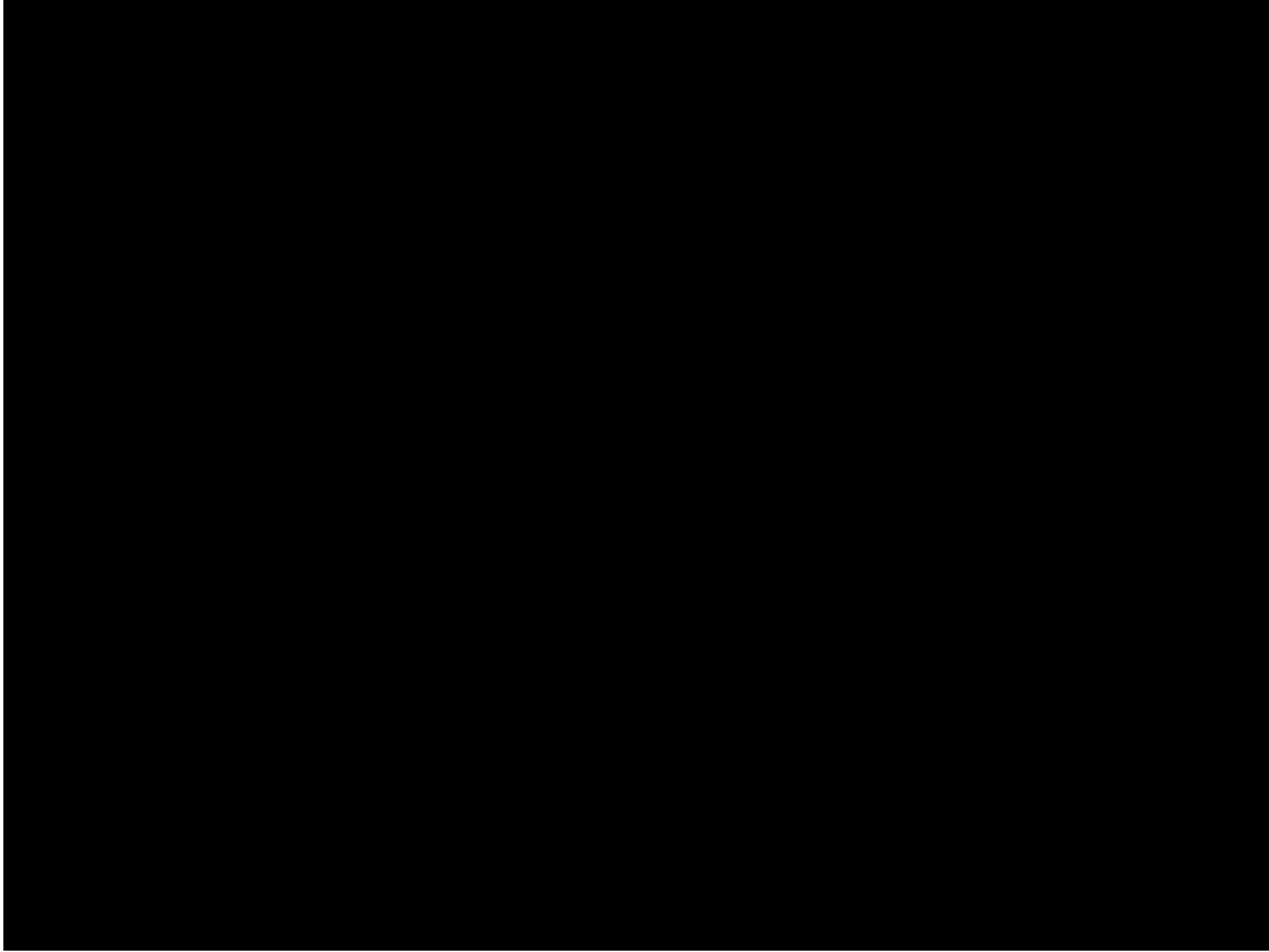
TS	ACTIVITY	CUSTOMER	...
2021-02-02	Completed Order	lamond.patin18@example.com	
2021-02-02	Viewed Page	lamond.patin18@example.com	
2021-02-02	Submitted Ticket	cyndia.atlee@example.com	
2021-02-03	Viewed Page	cyndia.atlee@example.com	
2021-02-04	Viewed Page	bradford.h@example.com	
2021-02-10	Opened Email	bradford.h@example.com	
2021-02-11	Received Product	rissa.ailey1908@example.com	

PLOTS, TABLES, MATERIALIZED VIEWS



A **customer** can be a person, a company, a property or a scooter.

Let's See it in action



LIVE Questions!

Give me any question and I will
show you how to answer it in
Narrator in under 5 minutes

Thank You
ahmed@narrator.ai