May 2023

Real-time gets real

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CEO, Tinybird

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CEO, Altinity

What is real-time?

How did we get to real-time data?

Real-time ad bidding

Building over fresh data

ALTINITY®

tinybird

Real-time data creates opportunities

Real-time P&L

Website personalization

Anomaly detection

Usage-based pricing

Smart inventory

Sports betting

How real-time analysis became affordable

Open-source projects

Low-latency column stores

Event streams

Visualization software

Kubernetes

Cloud Management

Serverless

What are the challenges to building real-time analytics on ClickHouse?

Finding ClickHouse experts

Automation

Ingest from sources

Delivery to consumers

Production operation

Focusing on apps, not infra

tinybird

ALTINITY®

Real-time gets real

Demo Time

Questions?

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Thank you.

Master Template

Tinybird

Covers

Cloned intermediate focus group

Tinybird

Right-sized actuating

Section Covers

Cloned intermediate focus group

Text

Agenda

- TUI JSON availability use case

- How we tackled this using Tinybird

- Demo

- Questions

- Next Steps

The Product

Tinybird Analytics helps build realtime analytics APIs at scale with no back-end needed.

It enables the ingestion of huge quantities of structured data, with the capacity to query, transform and prepare such data for consumption and the creation of realtime API endpoints.

About Tinybird

The Product

Tinybird Analytics helps build realtime analytics APIs at scale with no back-end needed.

We are deeply focused on improving the developer experience at Tinybird and on ensuring that any developer or data team can build highly scalable data applications over any amount of Data. There is a huge opportunity to change how Data Products are developed across different industries and we intend to seize it.

Types of texts

Tinybird helps data teams deliver real-time answers at scale through analytical ==this is the highlighted text== built in minutes, not weeks. With Tinybird, developers can ingest millions of rows per [this is linked text]() and serve low-latency, high-concurrency SQL based APIs.

We are deeply [this is linked text]() the developer experience at Tinybird and on ensuring that any developer or data team can build highly scalable data applications over any amount of Data. There is a huge opportunity to change how ==this is the highlighted text== are developed across different industries and we intend to seize it.

The Product

One morning, when Gregor Samsa woke from troubled dreams, he found himself transformed in his bed into a horrible vermin. He lay on his armour-like back, and if he lifted his head a little he could see his brown belly, slightly domed and divided by arches into stiff sections.

The bedding was hardly able to cover it and seemed ready to slide off any moment. His many legs, pitifully thin compared with the size of the rest of him, waved about helplessly as he looked.

It wasn't a dream.His room, a proper human room although a little too small, lay peacefully between its four familiar walls. A collection of textile samples lay spread out on the table - Samsa was a travelling salesman - and above it there hung a picture that he had recently cut out of an illustrated magazine and housed in a nice, gilded frame.

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The Product

It can all go to Hell!

A collection of textile samples lay spread out on the table - Samsa was a travelling salesman - and above it there hung a picture that he had recently cut out of an illustrated magazine and housed in a nice, gilded frame.

How about if

He must have tried it a hundred times, shut his eyes so that he wouldn't have to look at the floundering legs, and only stopped when he began to feel a mild, dull pain there that he had never felt before.

Analysing it in real-time is costly, painful and inflexible

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How about if

He lay on his armour-like back, and if he lifted his head a little he could see his brown belly, slightly domed and divided by arches into stiff sections.

Doing business

The bedding was hardly able to cover it and seemed ready to slide off any moment.

Data keeps growing

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Onboarding

1.

Make them feel welcome

You are most likely the first bird the new joiner will talk to regularly. Make them feel welcome and at ease, at Tinybird and within the team. How? Availability is key, be there for the new bird. Our recommendation is to schedule a check-in regularly.

2.

Connect them to others

When you're new, you don't know always who to go to for what. Make sure the newbie has some coffee chats in the first weeks to get well-connected. Tip: also think outside of your team. They also have this as an active to do.

The Product

It can all go to Hell!

- A collection of textile samples lay spread out on the table.

- Samsa was a travelling salesman - and above it there hung.

- Picture that he had recently cut out of an illustrated magazine and housed in a nice, gilded frame.

How about if

- He must have tried it a hundred times, shut his eyes so that.

- He wouldn't have to look at the floundering legs.

- Only stopped when he began to feel a mild, dull pain there that he had never felt before.

The Product

It can all go to Hell!

- One morning, when Gregor Samsa.

- Woke from troubled dreams.

- He found himself transformed.

- His bed into a horrible vermin.

How about if

- He lay on his armour-like back.

- If he lifted his head a little he could see.

- His brown belly, slightly domed and divided by arches into stiff sections.

Doing business

- The bedding was hardly able to cover

- it and seemed ready to slide off any moment.

- He slid back into his former position.

The Product

It showed a lady fitted out with a fur hat and fur boa who sat upright, raising a heavy fur muff that covered the whole of her lower arm towards the viewer.

It can all go to Hell!

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Numbers

About Tinybird

The Product

5k

It can all go to Hell!

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112

How about if

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The Product

5k

It can all go to Hell!

112

How about if

The Product

5k

It can all go to Hell!

One morning, when Gregor Samsa woke from troubled dreams, he found himself transformed in his bed into a horrible vermin.

112

How about if

He lay on his armour-like back, and if he lifted his head a little he could see his brown belly, slightly domed and divided by arches into stiff sections.

+45

Doing business

The bedding was hardly able to cover it and seemed ready to slide off any moment.

The Product

5k

It can all go to Hell!

112

How about if

+45

Doing business

The Product

$ 1.1M

ARR

80%

How about if

0.14%

Doing business

25

It can all go to Hell!

3

How about if

($8.2M)

Doing business

Text + Images

Analysing it in real-time is costly, painful and inflexible

Data keeps growing

Doing business

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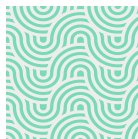
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Text + Code

Analysing it in real-time is costly, painful and inflexible

```
$ cat  pipes/uniq_users_per_day.pipe

NODE mat
SQL >
    select
        toDate(visit_date) date,
        property_id Int64,
        uniqState(fingerprint) uniq_users
    from wpv
    group by date, property_id

TYPE materialized
DATASOURCE uniq_users_per_day_ds

$ cat datasources/uniq_users_per_day_ds.datasource

SCHEMA >
        date Date,
        property_id Int64,
        uniq_users AggregateFunction(uniq, String)

ENGINE "AggregatingMergeTree"
ENGINE_SORTING_KEY date
$ tb push pipes/uniq_users_per_day.pipe --push-deps
```

Analysing it in real-time

Tinybird Analytics helps build realtime analytics APIs at scale with no back-end needed.

```
$ cat  pipes/uniq_users_per_day.pipe

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TYPE materialized
DATASOURCE uniq_users_per_day_ds

https://api.tinybird.co/v0/pipes/test.json?param=3

SCHEMA >
        date Date,
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ENGINE "AggregatingMergeTree"
ENGINE_SORTING_KEY date
$ tb push pipes/uniq_users_per_day.pipe --push-deps
```

Images

Quotes

"What's happened to me?"

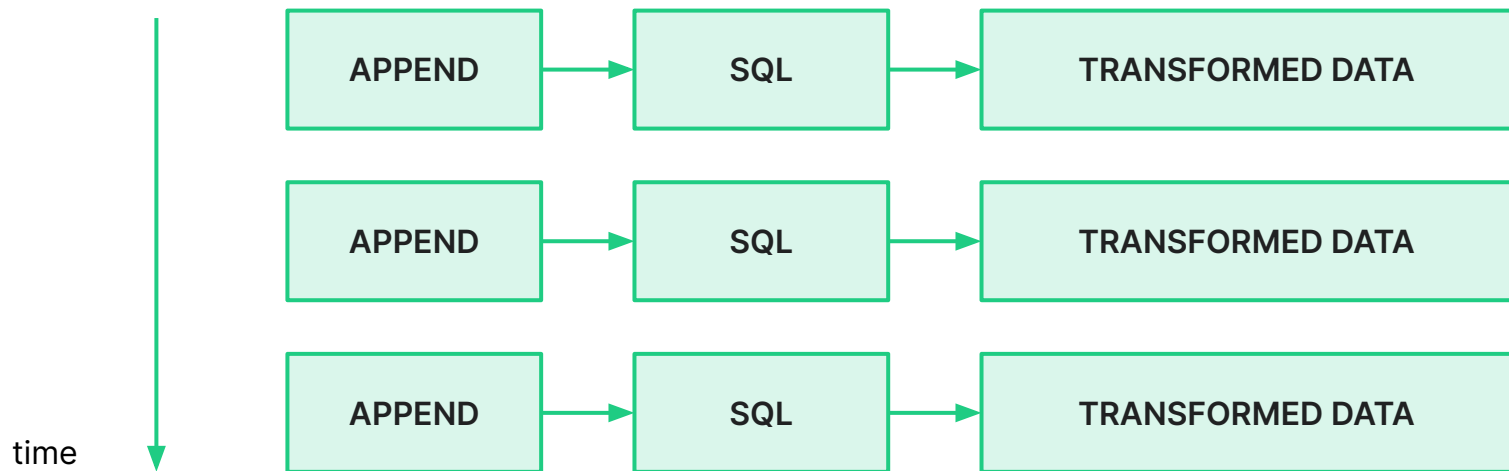"Oh, God", he thought, "what a strenuous career it is that I've chosen!

Tinybird

It was half past six and the hands were quietly moving forwards, it was even later than half past, more like quarter to seven.
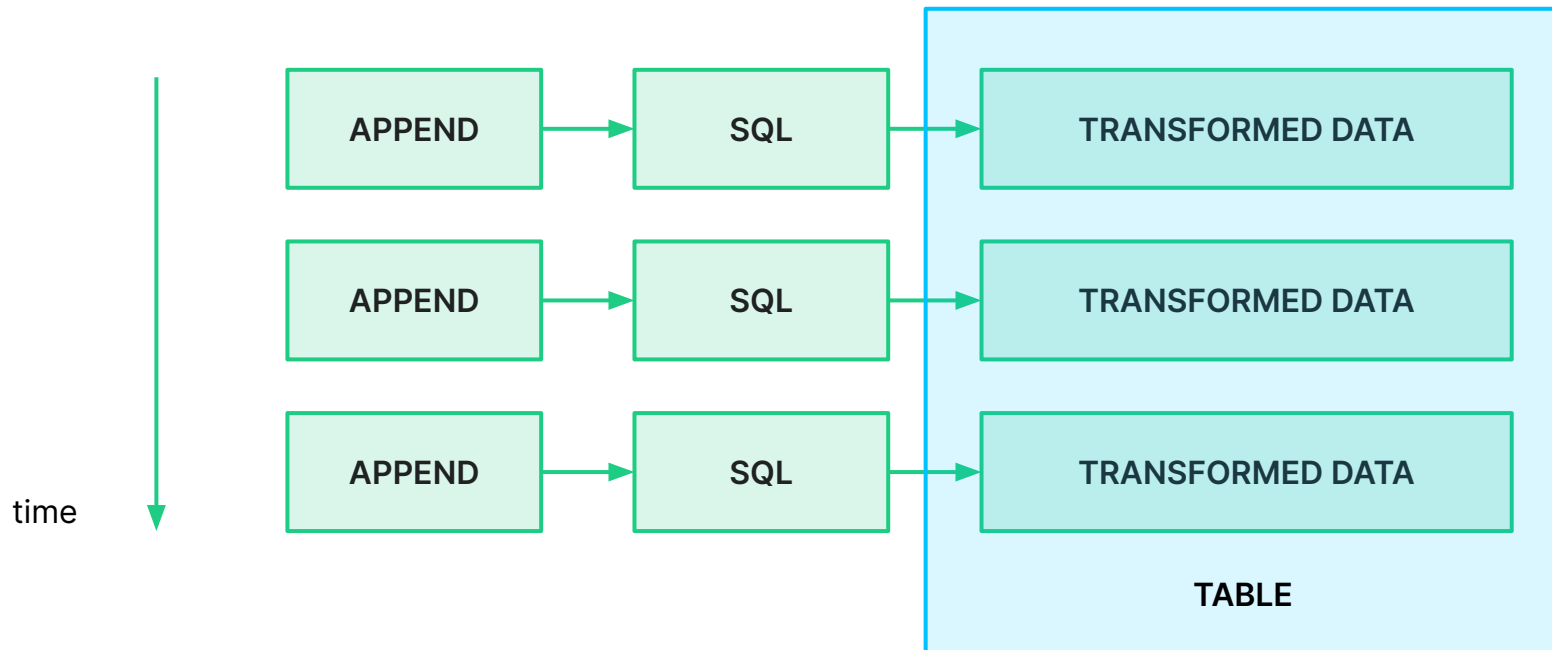
Schemas

The Product

The Product

Thank you

Tinybird

Thank you.

hi@tinybird.co

Tinybird

Thank you.

hi@tinybird.co

Tinybird

Onboarding

Hey Buddy 😊😊

You are the chosen one! You are about to become someone's buddy.

What does is mean to be a buddy?

A buddy is someone who partners up with a new birdie during their whole onboarding period. Typically we say the onboarding period covers someone's first 90 days.

You will be the newbie's go-to person for most questions and you will play an important role in making them feel welcome and at home in the Tinybird flock.

Presentation starting slide

Tinybird

Tinybird

Tinybird helps developers and data teams build applications that rely on instant answers to data at scale. Our APIs and software are helping businesses utilise the full potential of their data to gain insights and take action.

Crane   **crv**   **Singular.**

Investors

$ 38M

In funding

40+

The team

ZARA   THE HOTELS NETWORK   ▲ Vercel

Clients

Realtime is relevance

Build applications that rely on getting instant answers from data at scale
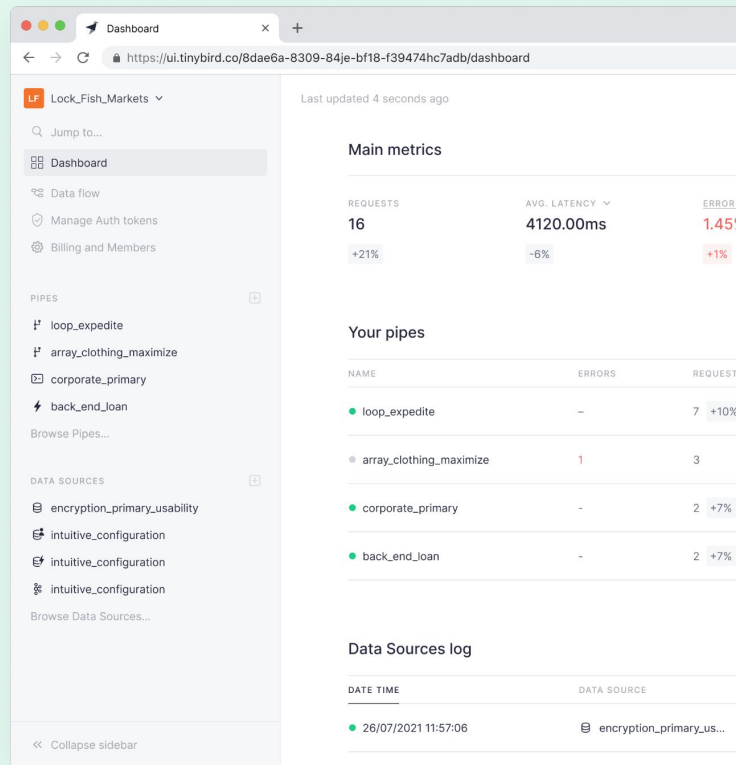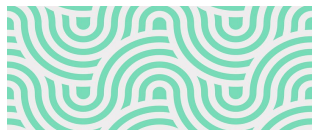
Freddie

Role title

+44 XXX XXX XXX

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www.tinybird.co

Private & Confidential
Presentation for:

Slide Resources

Realtime in-application dashboards is difficult

Very Expensive

Time Consuming

Compliance Risk

March 2022

Others

Tinybird

What's included

Tinybird Pro Account

- No setup costs

- Platform access via UI, API and CLI

- Support via Email

- 99.9% uptime SLA

Up to 2 months

- No overages cost (no limits).

- Cancel anytime

- Upgrade to commitment anytime

$3,000/month

JUMP
DATA DRIVEN VIDEO