Web Analytics

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The problem

Business Insight

❌ Businesses struggle to understand their website visitors

Existing solutions

❌ Existing analytics tools are complex, slow, and privacy-invasive

Problem statement

❌ Data-driven decisions are hard without real-time insights

The opportunity

Real-time Analytics Demand – Businesses need instant insights for quick decision-making.

🔒 **Privacy-Focused Solutions** – With GDPR and user privacy concerns, lightweight and transparent tracking is crucial.

⚡ **Performance-Driven Architecture** – Modern web applications need **faster, efficient** analytics that do not slow down their platforms.

The challenges on the way

💾 **Handling Large Data Volumes** – Processing millions of user events efficiently.

⏳ **Real-Time Performance** – Ensuring analytics updates instantly without delays.

🔧 **Balancing Simplicity & Functionality** – Making analytics both powerful and easy to use.

📡 **Ensuring Accuracy** – Filtering bot traffic and maintaining reliable data.

Solution

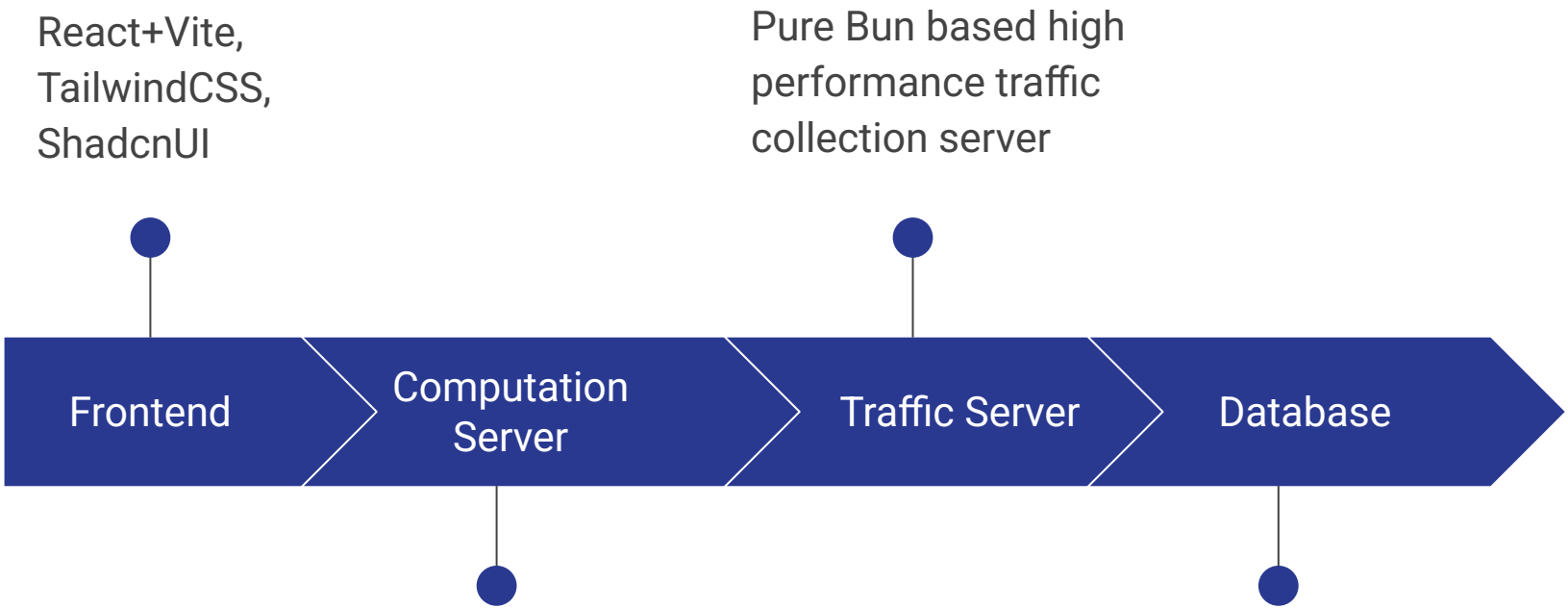
Web based traffic platform

✅ **Lightweight Tracking Script** – Minimal impact on website performance.

✅ **Real-Time Processing** – Data updates instantly as users interact with the site.

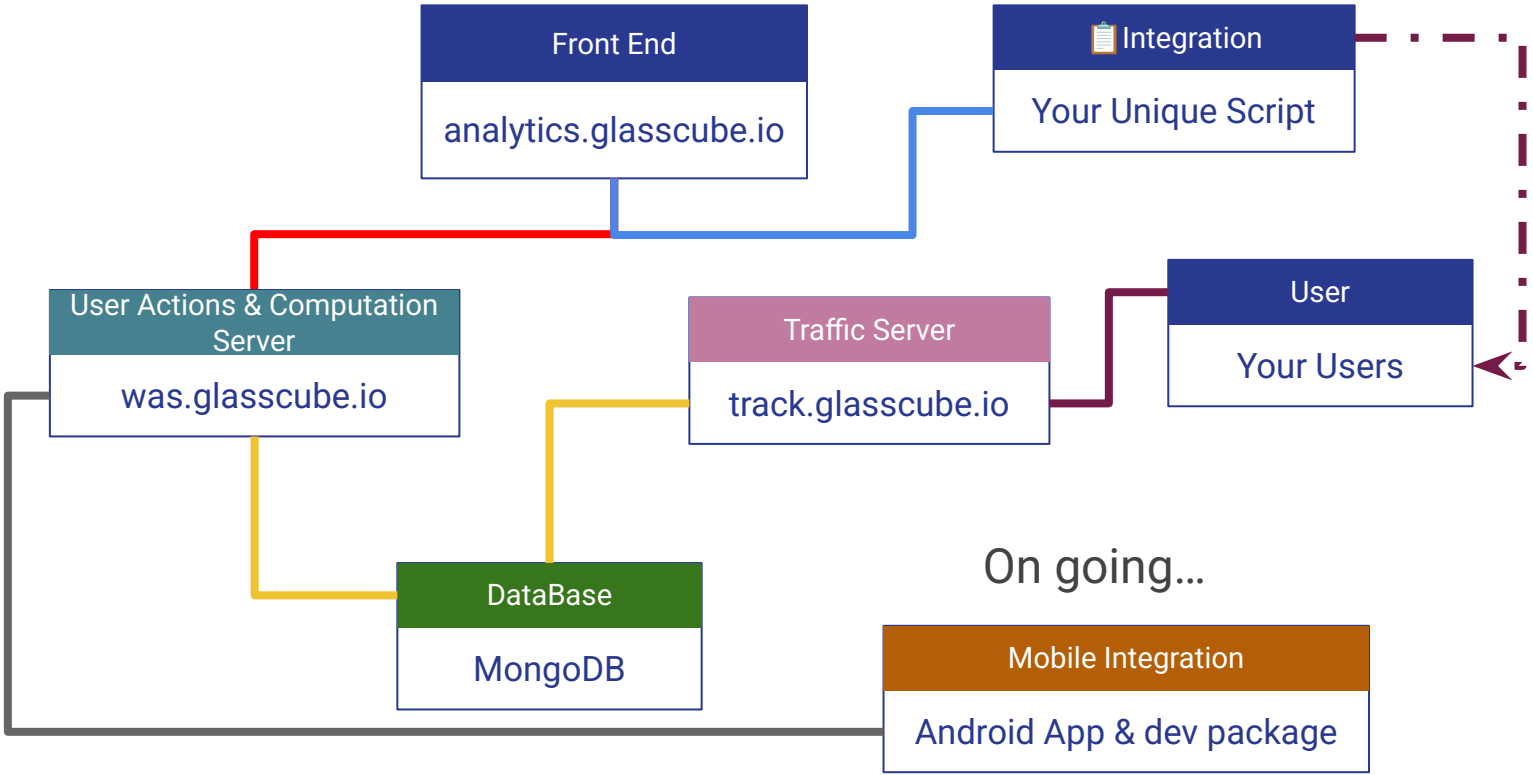
✅ **Minimal Dashboard** – Focus on key business metrics, not just generic stats.

✅ **Privacy-First Approach** – No unnecessary tracking, GDPR-compliant.


React+Vite,
TailwindCSS,
ShadcnUI
Pure Bun based high performance traffic collection server
Frontend
Computation Server
Traffic Server
Database
User Data and metrics computation with Bun and Express
MongoDB for efficient event storage.

Implementation

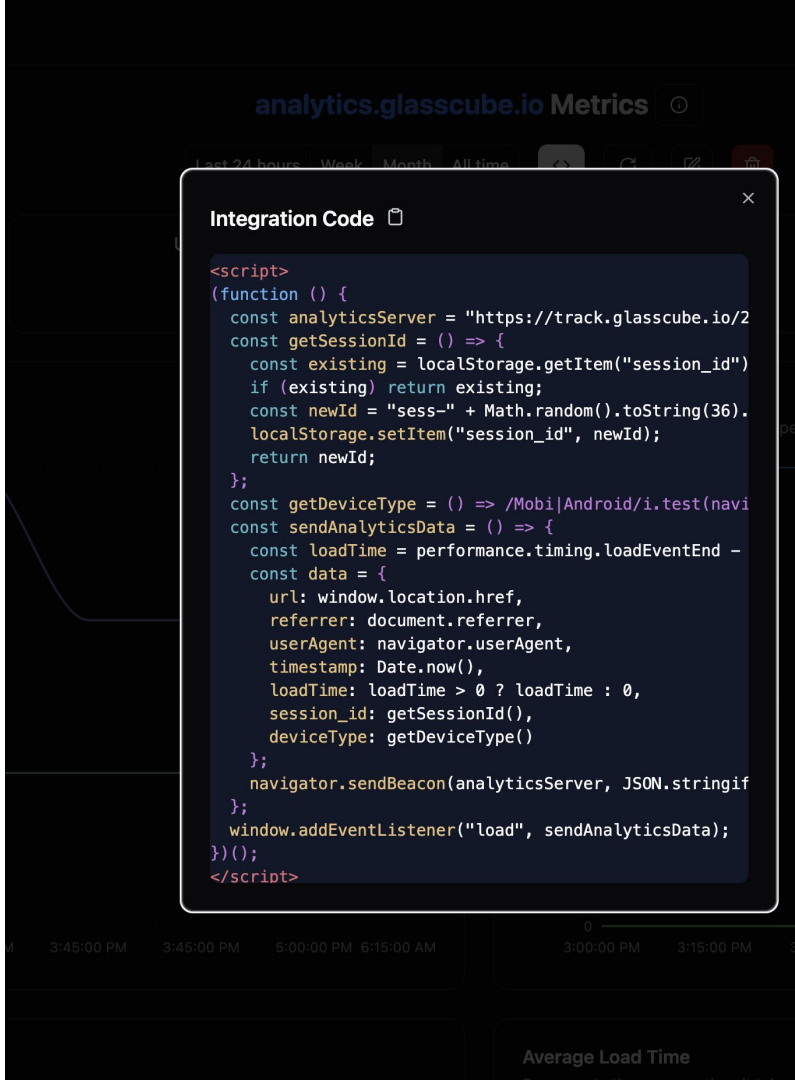
The Overflow



The Script

You copy and paste the script into your main html file and that is it!

It starts to work as long as your website or web platform is deployed.



Team

Our team is two people:

I handle **backend, full-stack, data analysis, and UI/UX**, while my teammate focuses on **Android development and UI/UX**. Together, we build a fast, efficient, and user-friendly analytics platform. 🚀

Results & Performance Metrics

```
Last login: Sun Mar 30 14:36:50 on ttys024
❯ oha -z 5s https://track.glasscube.io
Summary:
  Success rate: 100.00%
  Total:        5.0036 secs
  Slowest:      0.4339 secs
  Fastest:      0.1043 secs
  Average:      0.1298 secs
  Requests/sec: 388.9178

  Total data:   31.58 KiB
  Size/request: 17 B
  Size/sec:     6.31 KiB

Response time histogram:
  0.104 [1]    |
  0.137 [1587] |■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■
  0.170 [258]  |■■■■■
  0.203 [6]    |
  0.236 [0]    |
  0.269 [0]    |
  0.302 [0]    |
  0.335 [0]    |
  0.368 [7]    |
  0.401 [5]    |
  0.434 [38]   |

Response time distribution:
  10.00% in 0.1080 secs
  25.00% in 0.1123 secs
  50.00% in 0.1196 secs
  75.00% in 0.1274 secs
  90.00% in 0.1488 secs
  95.00% in 0.1607 secs
  99.00% in 0.4237 secs
  99.90% in 0.4326 secs
  99.99% in 0.4339 secs
```

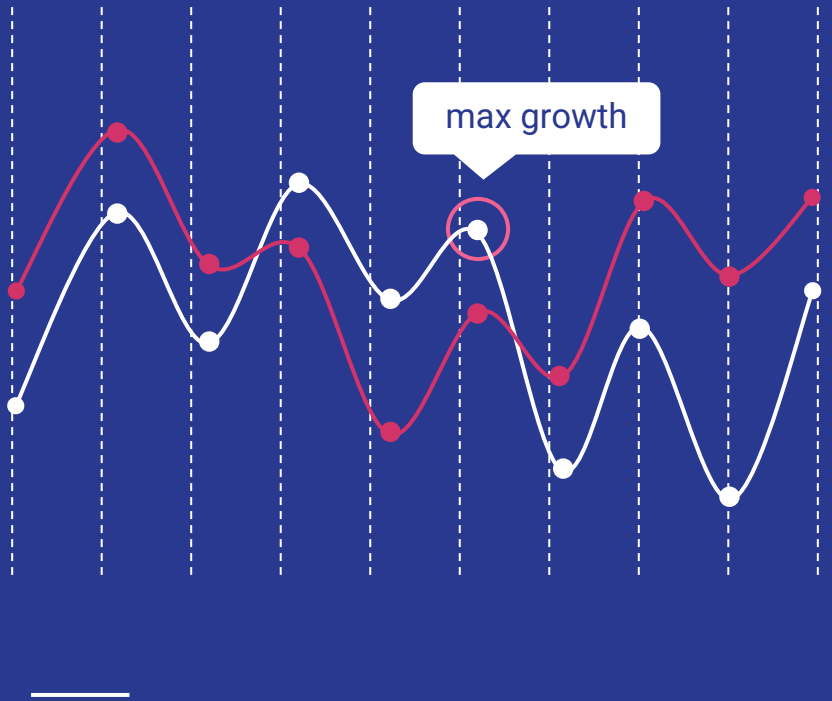
Impact

🌍 **Empowering Businesses with Better Data**

📊 **Real-time insights for data-driven decision-making**

🔒 **Privacy-first analytics** without third-party tracking.

⚡ **Faster, more cost-efficient alternative** to existing solutions.



Ongoing and future work

📱 **Android App** – Native mobile platform to monitor analytics on the go.

🧠 **AI-Powered Insights** – Automated recommendations based on user behavior.

📡 **More Integrations** – Support for e-commerce, SaaS, and CMS platforms.

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Thank You!

analytics.glasscube.io

Your next open source friendly tool!

https://github.com/nodiry