

10th UCAAT

User Conference on
Advanced Automated Testing

Seeing Beyond the Tools

Unleashing the power of observability

Anastasia Kutafina, QA in Dusseldorf, GER

trivago

11/15/2023



Imagine..

~ 100 people



Imagine..

~ 100 people



Imagine..

1 user session



Imagine...

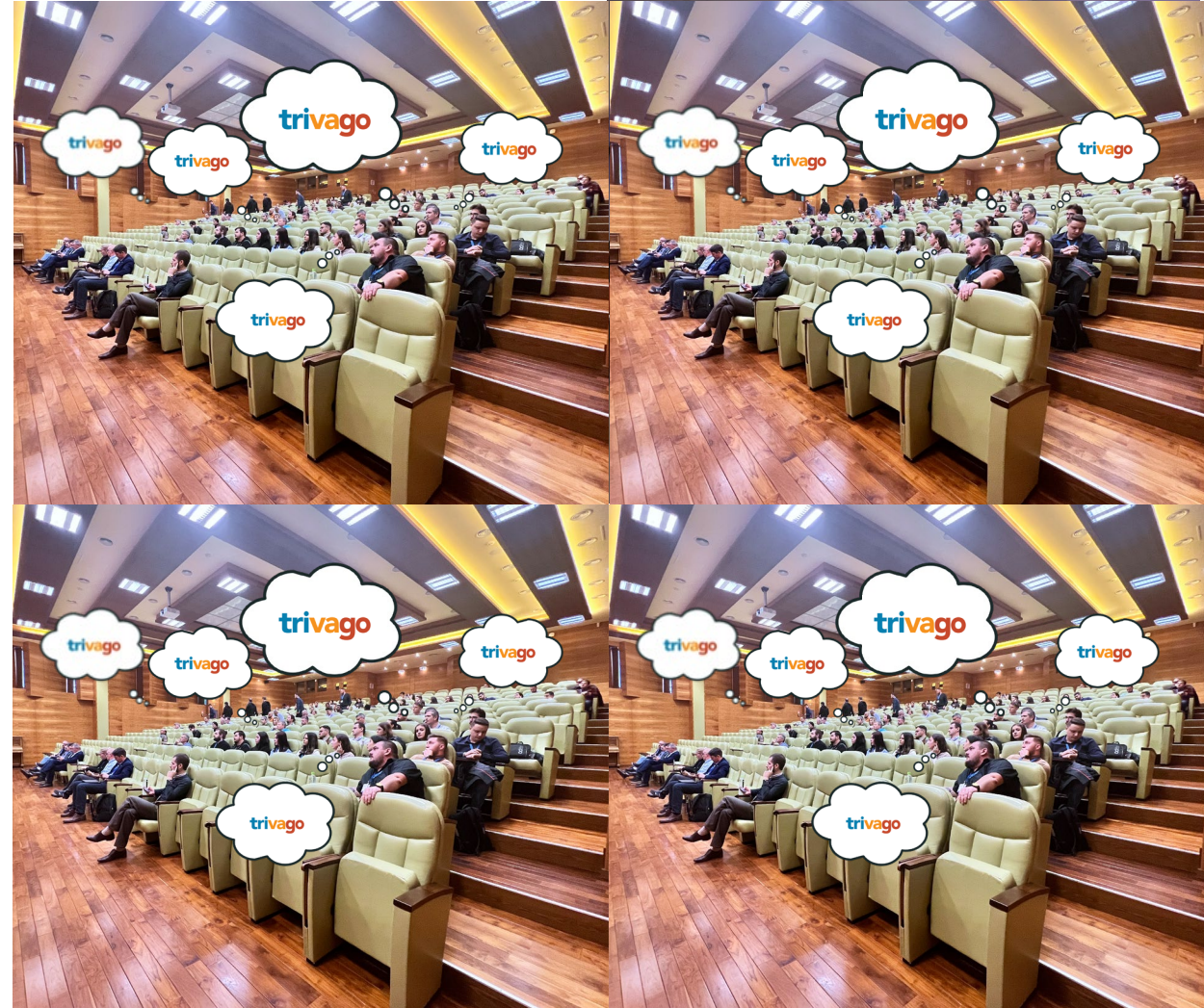
~ 100 people



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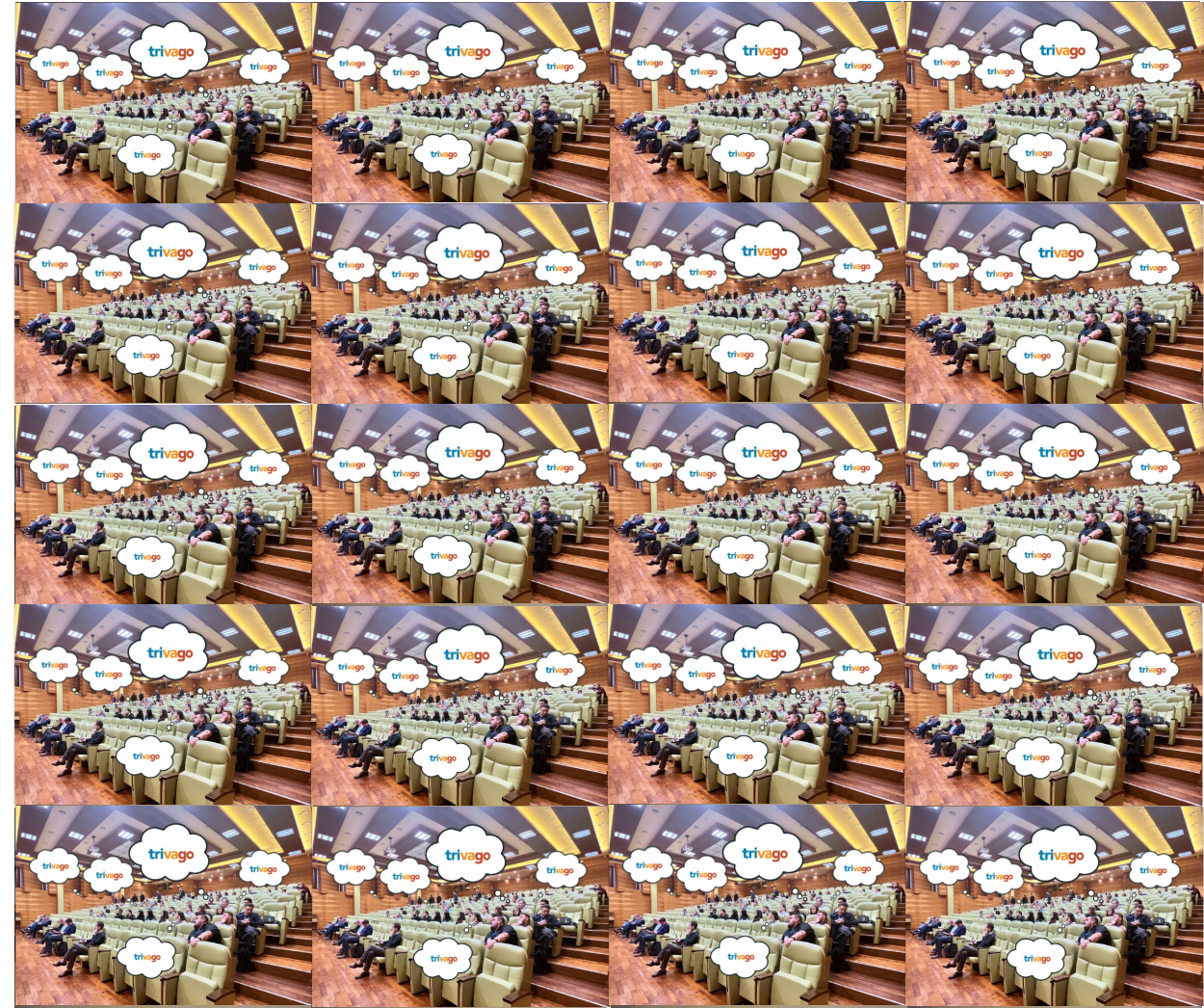
Imagine..

~ 400 user sessions



Already harder but Imagine..

~ 2k user sessions



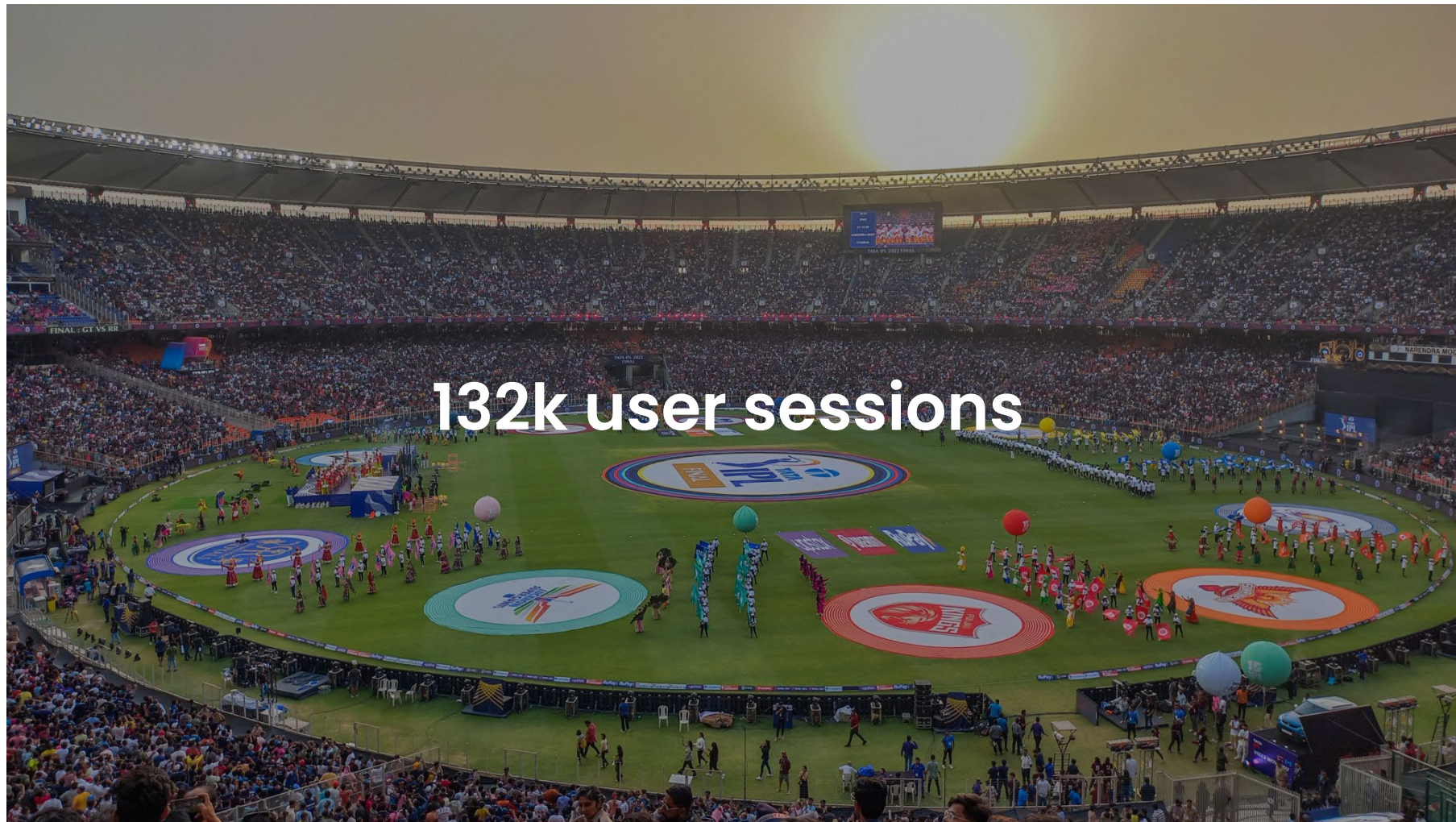
The photo to help you imagine..



The Narendra Modi Stadium in Ahmedabad, India; image by populous.com

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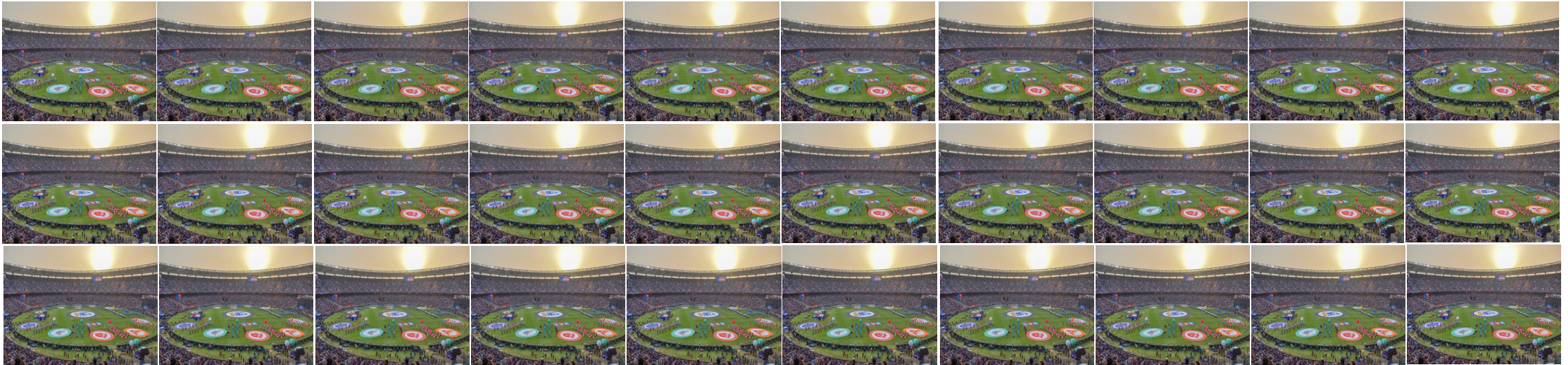
The photo to help you imagine..



The Narendra Modi Stadium in Ahmedabad, India; image by populous.com

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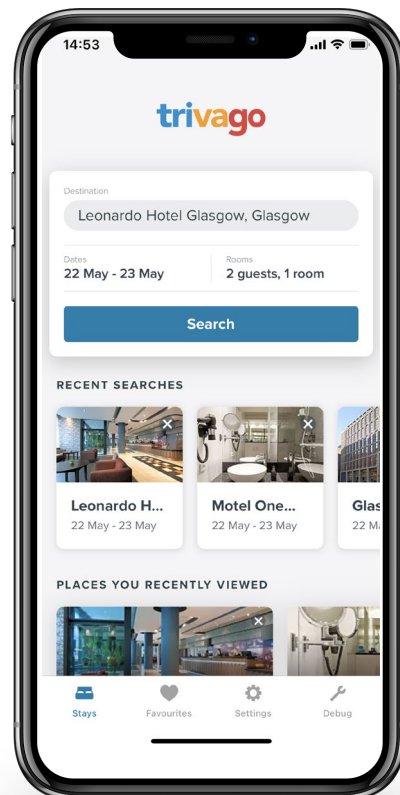
Not imagination but reality is..

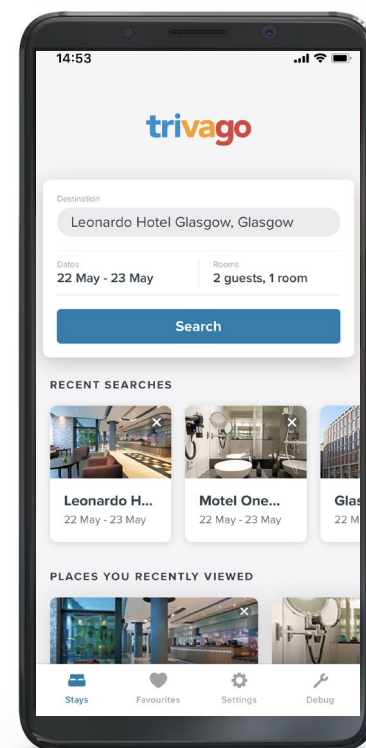
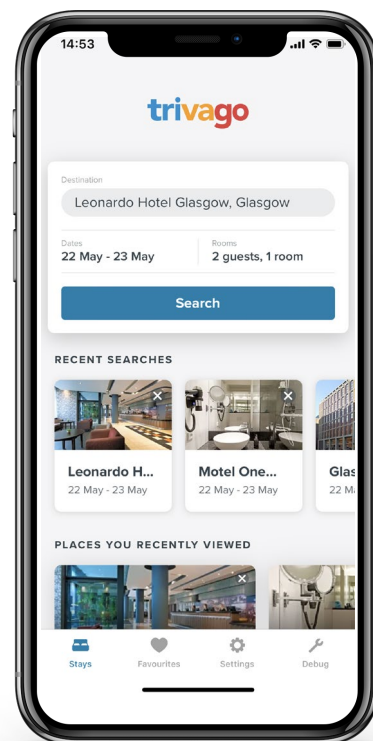


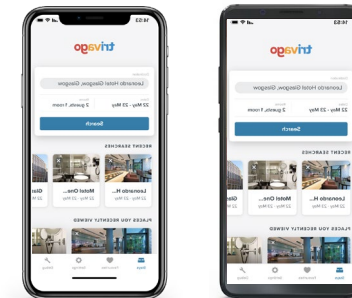
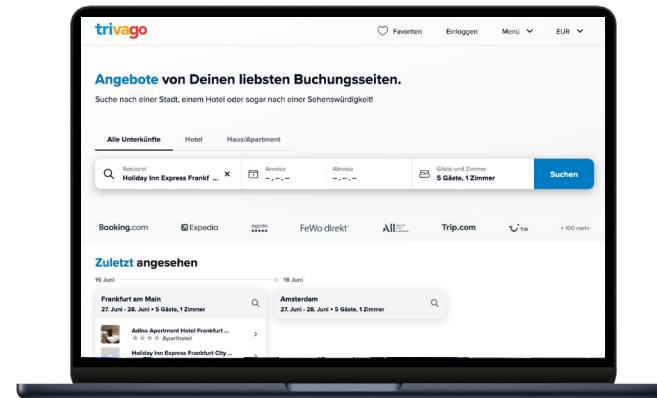
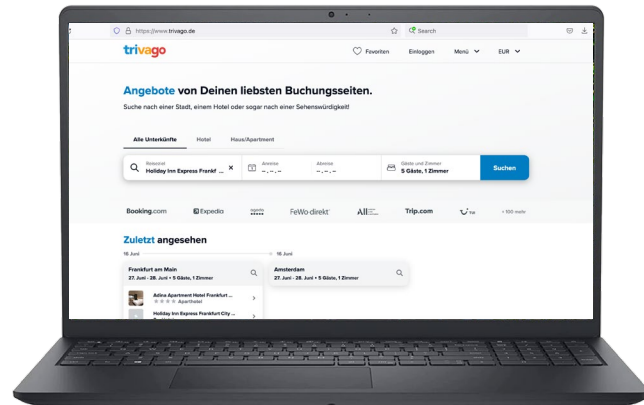
up to
4,000,000
sessions per day

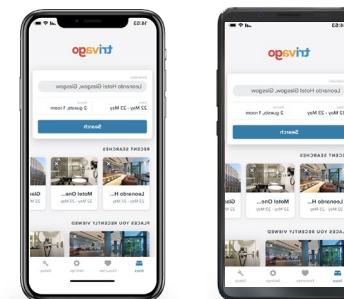
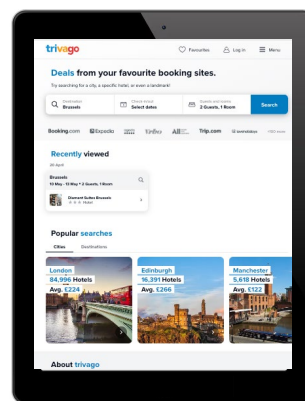
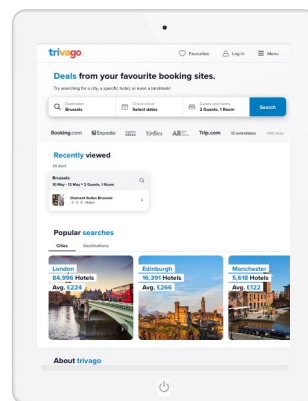
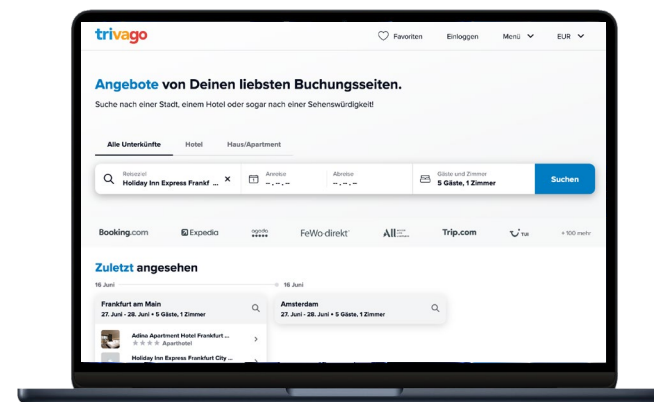
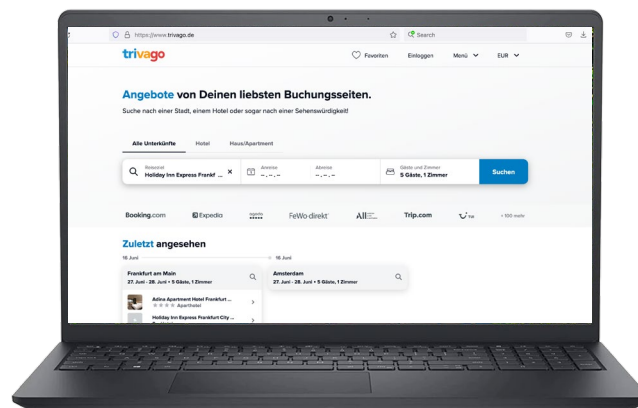
The Narendra Modi Stadium in Ahmedabad, India; image by populous.com

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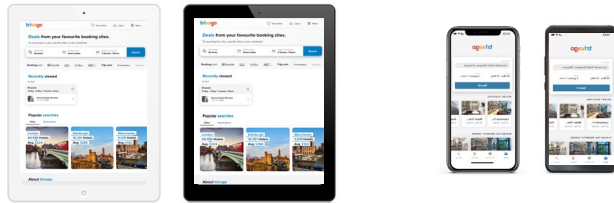
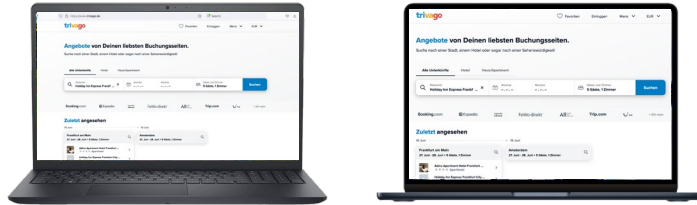




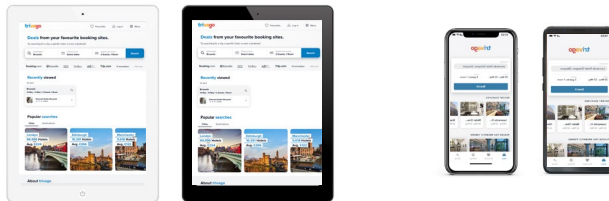


Reality is

WEB Apps

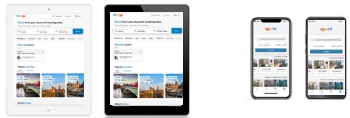
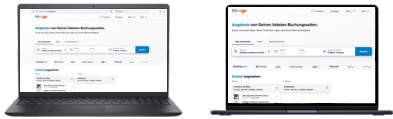


Mobile Apps



How to swim in this sea?

WEB Apps



Mobile Apps



X



How to swim through this sea?

The image displays a collection of logos for various technologies, organized into four main categories:

- Data & Databases:** Includes Hadoop, MySQL, Amazon DynamoDB, PostgreSQL, Segment, Amazon Redshift, Redis, Kafka, Apache Spark, Python, R, Cloudera, Amazon SNS, NATS, and Kafka Connect.
- Backend:** Includes Java, Kotlin, Golang, PHP, gRPC, Envoy, Node.js, GraphQL, Symfony, AWS Lambda, AWS Step Functions, and Google Cloud Functions.
- Frontend:** Includes Vue.js, TypeScript, React, JS, Tailwind CSS, CSS, jQuery, Yarn, and Storybook.
- Infrastructure | CI/CD | Tooling:** Includes Sentry, Mixpanel, BrowserStack, Icinga, Grafana, Kibana, Instana, Google Cloud, Amazon Web Services, Terraform, Rancher, Docker, Kubernetes, AWS CloudFormation, Amazon CloudWatch, Jenkins, and GitHub Actions.

A box at the bottom right of the collage states: **266 GitHub Repositories**

Visualization and Exploration

- Have Logs & Metrics

Visualization and Exploration

- Have Logs & Metrics
- Have alerts

Visualization and Exploration

- Have Logs & Metrics
- Have alerts
- Check they work 😊

- Have RED Metrics
- Have alerts



Kibana & Elasticsearch

- Have Logs
- Have alerts

The screenshot shows the Elastic Kibana interface. At the top, there's a search bar with the text "Find apps, content, and more. Ex: Discover". Below it, the "Discover" tab is active. The search query is "kibana_sample_data_flights" and it shows 6,586 hits. The interface is divided into several sections:

- Left Panel:** Contains a search field for field names, a "Filter by type" dropdown, and a list of fields. The "Selected fields" list includes Carrier, AvgTicketPrice, Cancelled, DestCityName, and DestCountry. The "Available fields" list includes DestLocation, _id, _index, _score, dayOfWeek, and Dest.
- Top Right:** Shows a bar chart representing the distribution of data over time, with a date range from Feb 10, 2022 to Apr 10, 2022.
- Table:** A table with columns: Type, Name, Documents (%), Distinct values, and Distributions. The rows are: AvgTicketPrice (5000 documents, 4999 distinct values), Cancelled (5000 documents, 2 distinct values), Carrier (5000 documents, 4 distinct values), DestCityName (5000 documents, 138 distinct values), and DestCountry (5000 documents, 32 distinct values).
- Bottom Right:** A "DOCUMENTS STATS" table showing count (5000), percentage (100%), and distinct values (32). Next to it is a "TOP VALUES" table for DestCountry: IT (918, 18.4%), US (747, 14.9%), CN (417, 8.3%), CA (339, 6.8%), RU (304, 6.1%), and JP (301, 6%). A map of the world is also visible.

Google Cloud Logs Explorer

- Have Logs
- Have alerts

The screenshot shows the Google Cloud Logs Explorer interface. It includes a search bar with a query, a histogram showing log frequency over time, and a table of query results. Numbered callouts (1-6) highlight specific UI elements: 1. REFINE SCOPE button; 2. Search all fields input; 3. Log fields and Histogram toggle; 4. Search fields and values input; 5. Histogram chart; 6. Query results table.

Logs Explorer **1** [REFINE SCOPE](#) Project [SHARE LINK](#)

Query Recent (21) Saved (0) Suggested (0) Library [Clear query](#) [Save](#) [Stream logs](#)

2 Last 1 hour Search all fields Audited Resource Log name Default +7

```
1 resource.type="audited_resource"
2 -severity=ERROR
```

3 Log fields Histogram [Create metric](#) [Create alert](#) [Jump to now](#) More

4 Log fields Search fields and values

5 Histogram

6 Query results 296 log entries [Correlate by](#) [Download](#)

SEVERITY	TIMESTAMP	PDT	SUMMARY	EDIT
> i	2022-09-13 02:34:58.435 PDT		audit_log, method: "google.monitoring.v3.Metri	
> i	2022-09-13 02:35:15.455 PDT		audit_log, method: "google.monitoring.v3.Metri	
> i	2022-09-13 02:35:53.582 PDT		audit_log, method: "google.monitoring.v3.Metri	
> i	2022-09-13 02:35:58.380 PDT		audit_log, method: "google.monitoring.v3.Metri	
> i	2022-09-13 02:35:58.437 PDT		audit_log, method: "google.monitoring.v3.Metri	

- Add through Lazy Loading
- Have alerts

The screenshot displays the Sentry Performance dashboard for a 'javascript' project. The left sidebar contains navigation options: Projects, Issues, Discover, Performance, Alerts, Releases, User Feedback, Dashboards, Monitors, Activity, Stats, and Settings. The main content area shows performance metrics and charts. The 'Performance' section includes three key metrics: First Contentful Paint (1829ms), Largest Contentful Paint (3607ms), and First Input Delay (6ms). Below these are two charts: 'Apdex' and 'Transactions Per Minute'. At the bottom, a table lists transactions with columns for Transaction, Project, TPM, P50, P95, and Failure Rate.

TRANSACTION	PROJECT	TPM ↓	P50	P95	FAILURE R
☆ /organizations/:orgId/issues/	JS javascript	121.2847	1.87s	8.46s	0.7
☆ /organizations/:orgId/issues/:groupId/	JS javascript	82.284	3.40s	9.98s	0.8
☆ /organizations/:orgId/projects/	JS javascript	16.1312	1.19s	7.34s	0.7
☆ /organizations/:orgId/issues/:groupId/events/:eventId/	JS javascript	15.275	1.18s	7.89s	0.7
☆ /organizations/:orgId/discover/results/	JS javascript	9.2493	950.00ms	6.02s	0.3

Synthetic Monitoring

- Have Logs & Metrics
- Have alerts

Synthetic Monitoring

- Have Logs & Metrics
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- Check they work 😊

Synthetic Monitoring

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- Check they work 😊

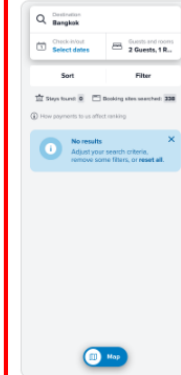
QA HS QA Notifications APP 8:26 AM
🔔 One or more **trupi**-live tests failed

🌐 Locale: UK
🔴 Failed tests: 1
🟢 Passed tests: 1

[ERROR] Tests run: 1, Failures: 1, Errors: 0, Skipped: 0, Time elapsed: 35.459 s <<< FAILURE! - in Runner_SemUberScenario_scenario001_run001_IT[ERROR] SEM Landing Page live UberScenario.SEM UberScenario Time elapsed: 34.883 s <<< FAILURE!java.lang.AssertionError: No accommodations found in result listExpected: a value greater than <0> but: <0> was equal to <0>-[ERROR] Tests run: 1, Failures: 1, Errors: 0, Skipped: 0, Time elapsed: 43.893 s <<< FAILURE! - in Runner_UberScenario_scenario001_run001_IT[ERROR] UberScenario.UberScenario Time elapsed: 43.297 s <<< FAILURE!java.lang.AssertionError: Expected: is <25> but: was <0>-[ERROR] Tests run: 1, Failures: 1, Errors: 0, Skipped: 0, Time elapsed: 66.199 s <<< FAILURE! - in Runner_SemUberScenario_scenario001_run001_IT_scenario001_run001_rerun_IT[ERROR] SEM Landing Page live UberScenario.SEM UberScenario Time elapsed: 65.607 s <<< FAILURE!java.lang.AssertionError: Expected: a value greater than <0> but: <0> was equal to <0>

Test report Job run details Test last URL Kibana **trupi**-live overview

Failure screenshot (195 kB) ▾





Ask me anything

 qa-anastasia

