

Project Goal

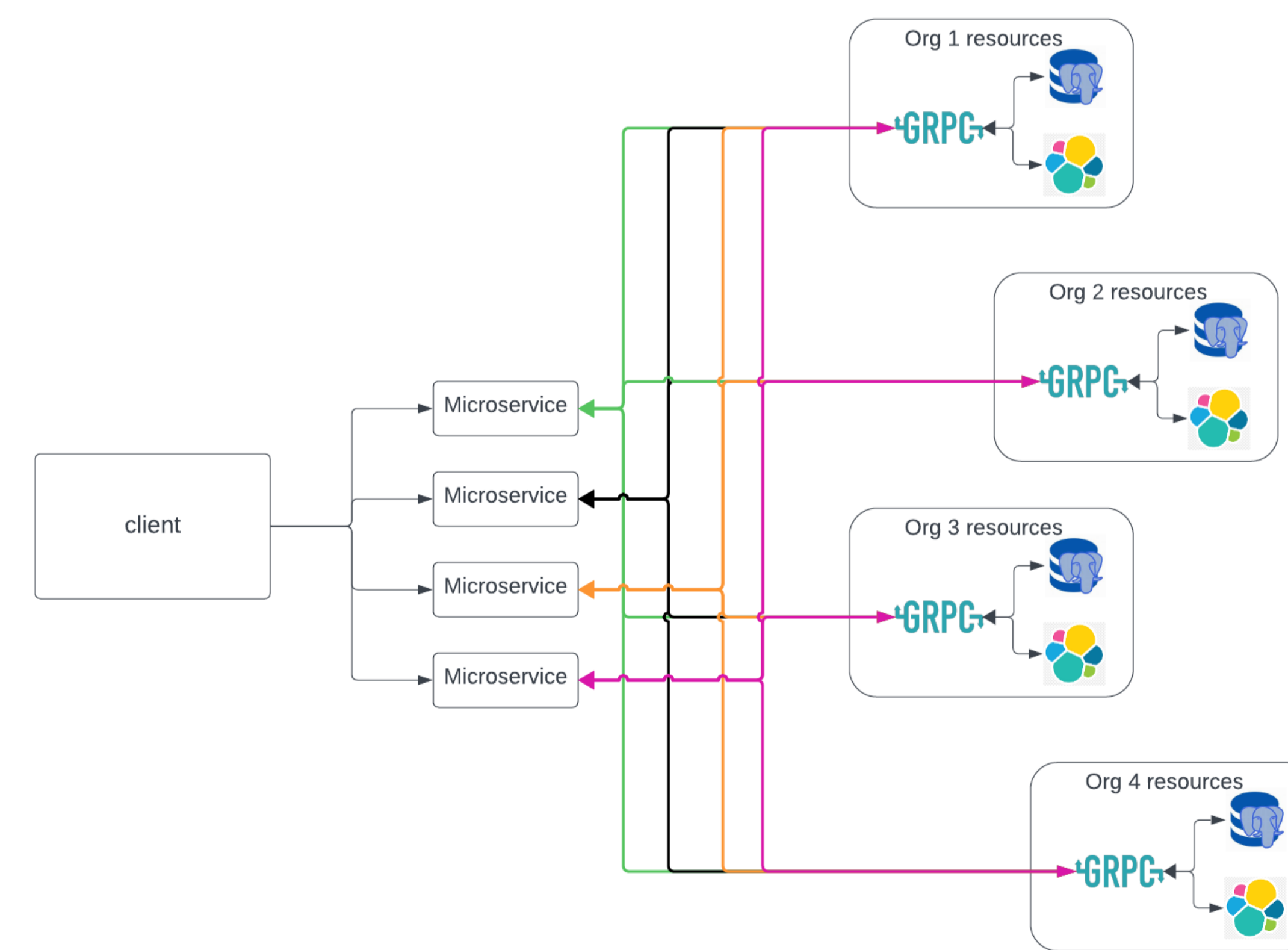
Our project aims to provide a comprehensive tool that tracks seating occupancy in real-time, visualizing peak attendance periods as well as giving photos of the audience for event organizers.

Project Motivation

We wish to give event organizers precise, real-time seating analytics, streamlining venue management for increased attendee satisfaction. By using AI, we're enabling data-driven insights that will benefit several industries from retail to ministry.

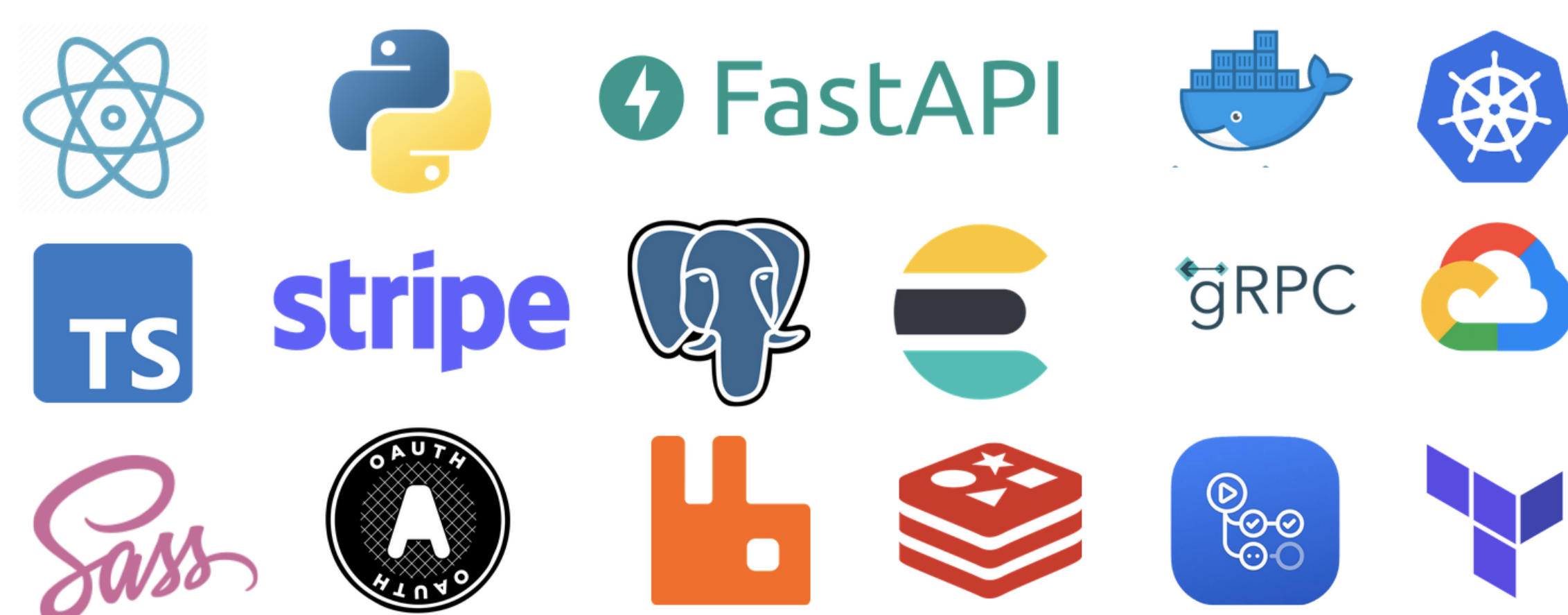
Architecture

Each microservice is operated on a separate server so that our website can still function if one aspect breaks down.



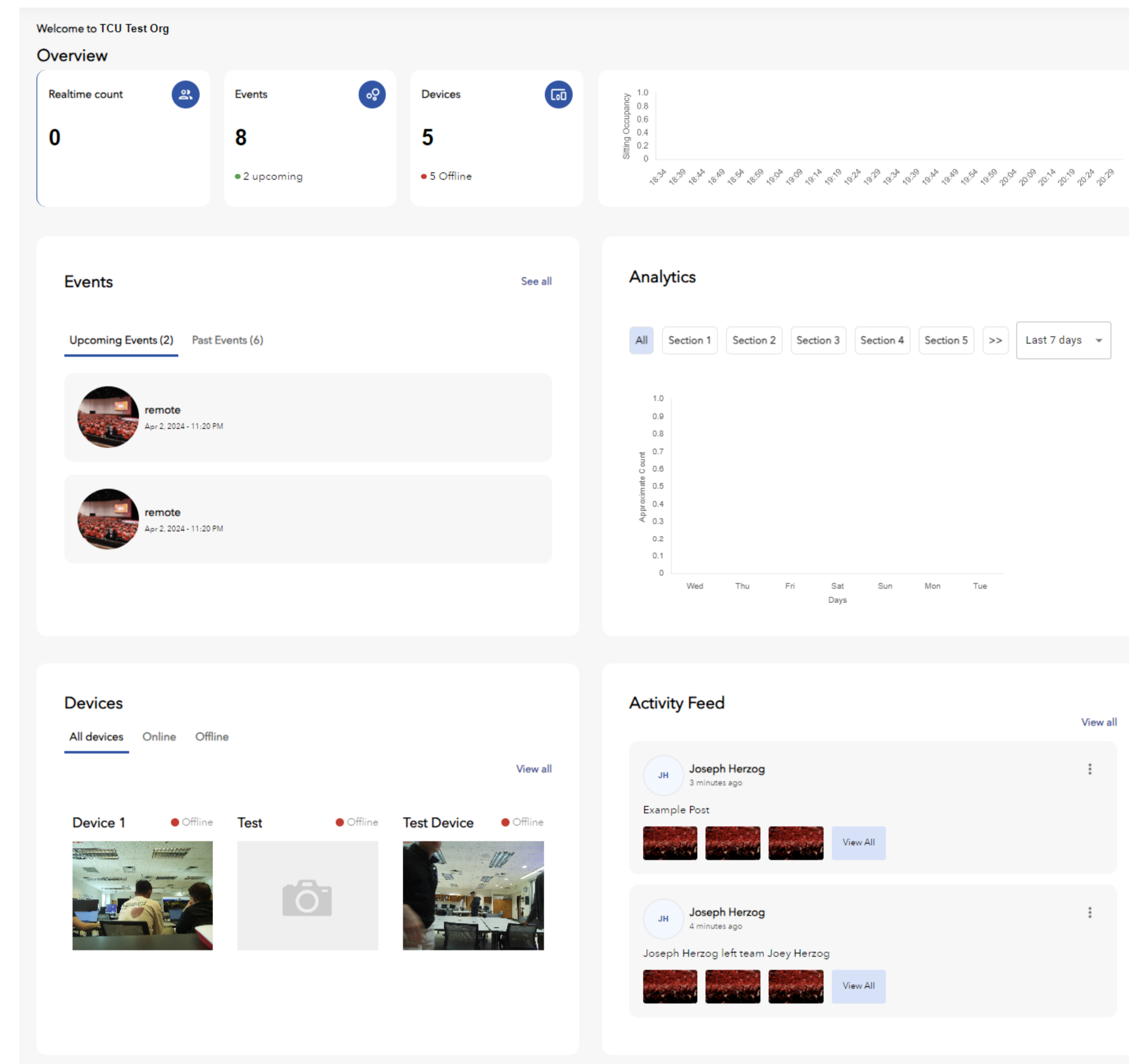
- Microservices:
- Events
 - Devices
 - Analytics
 - Activity Feed
 - Teams
 - Authentication

Tech Stack

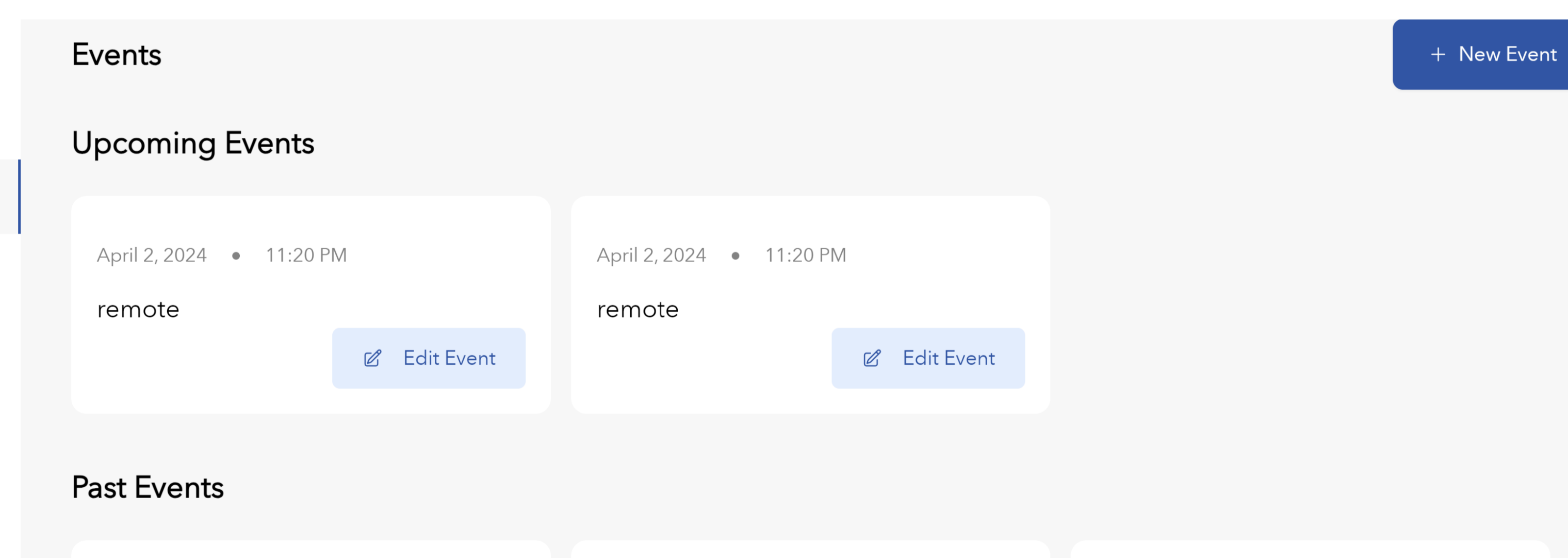


Website Pages

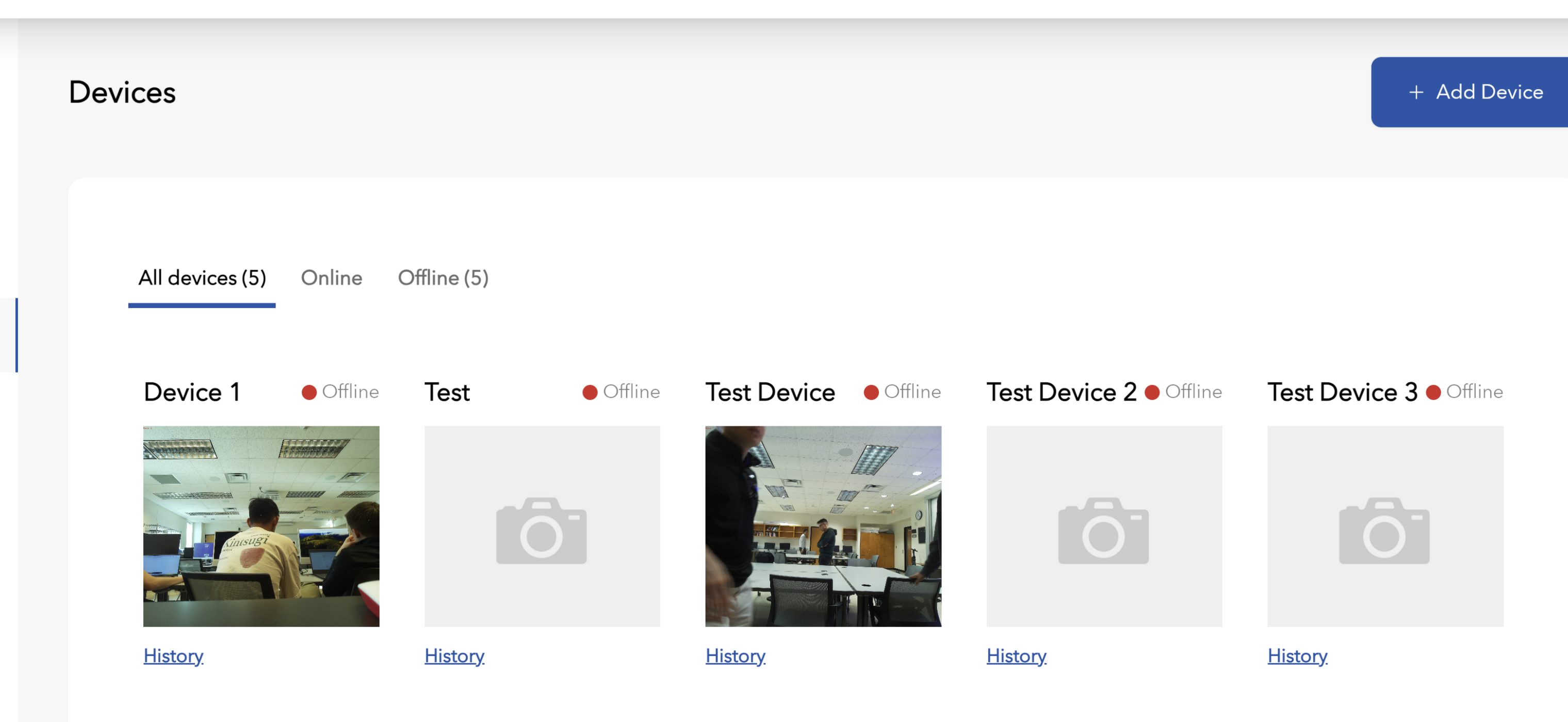
Overview:



Events:

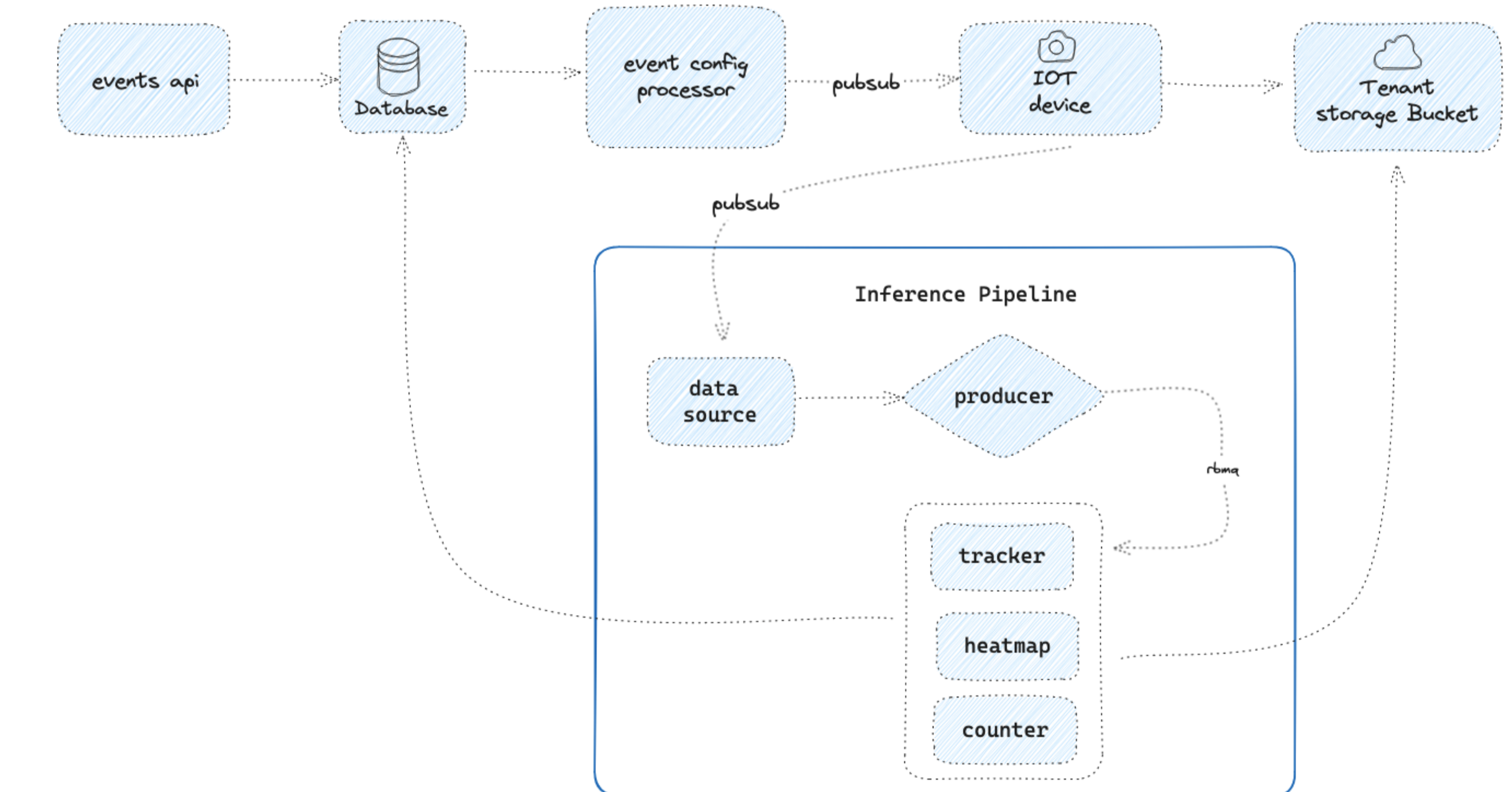


Devices:



Events Workflow

1. The user creates an Event, which is then stored in the database.
2. The Event-Config-Processor monitors the database and registers the Event's start time.
3. Upon reaching the start time, the Event-Config-Processor activates the IoT Device.
4. The IoT Device begins taking photos at predetermined time intervals.
5. Each photo is uploaded to the cloud, specifically to the Tenant Storage Bucket.
6. Simultaneously, the photos are sent to the Inference Pipeline.
7. The AI Model within the Inference Pipeline analyzes the photos to count the number of people present.
8. The resulting data—counts of people—are sent back and stored in the Database, and displayed in the Analytics tab.



Acknowledgements

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