

Vehical Fault Detection

NEW BUSINESS OPPORTUNITY

21 December, 2025

MLT cooperation 

A G E N D A

- The Team
- Our Mission
- Use Case Design
- Functional and Non-Functional Requirements
- Database Design
- Sequence Diagrams
- Demo

MEET THE TEAM

Founder & CEO
Mai Long Thien

Vision-driven leader focused on building impactful products and guiding teams from concept to execution. Responsible for strategic direction, decision-making, and long-term growth.

Back-end developer
Pham Hoang Phuong

Problem-solving engineer responsible for system architecture, data handling, and API development. Ensures scalability, security, and reliable server-side performance.

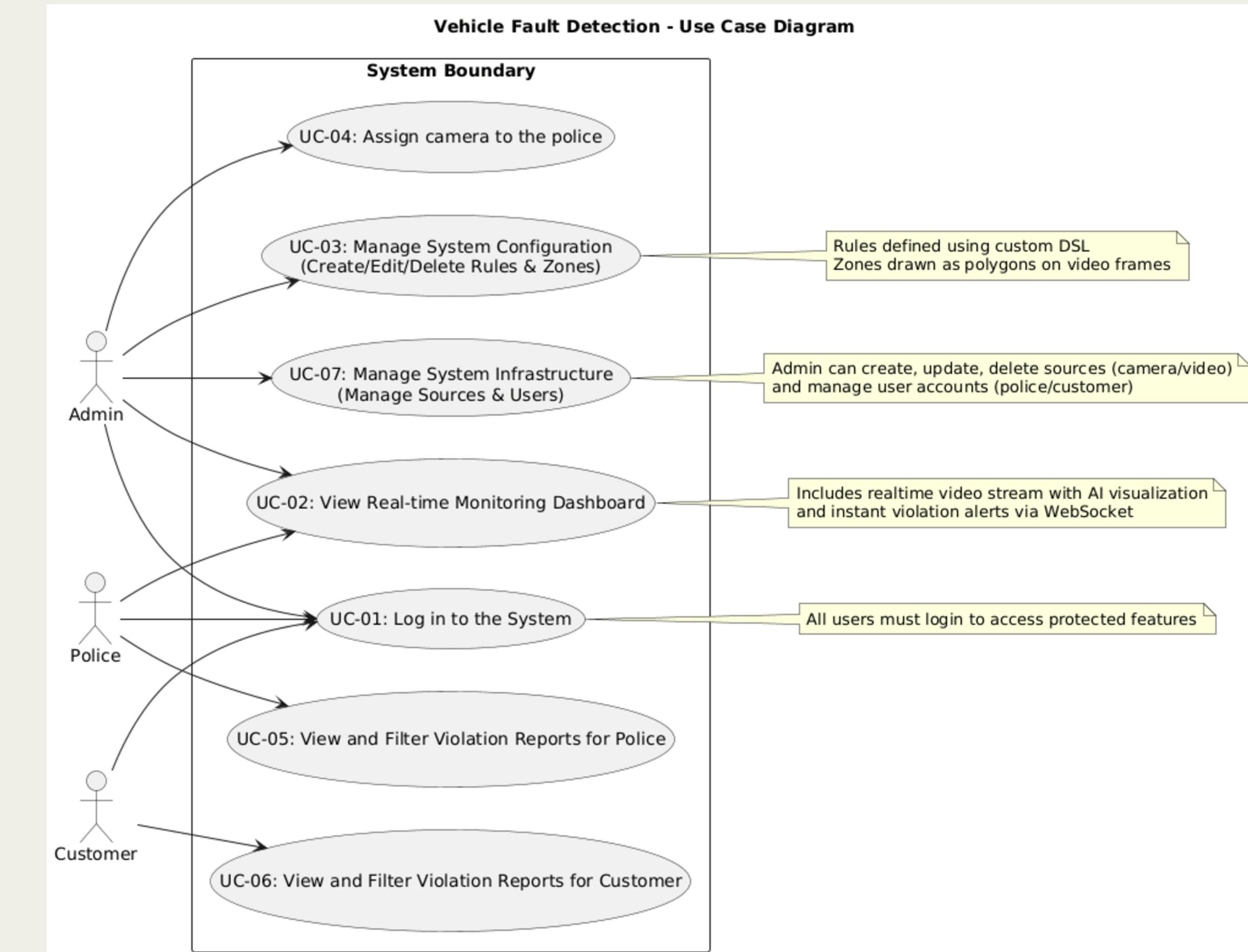
Front-end developer
Dang Ngoc Thai Son

Detail-oriented developer specializing in crafting intuitive, responsive user interfaces. Focused on performance, usability, and translating design concepts into seamless user experiences.

OUR MISSION

- Our project is designed to automate the detection and reporting of vehicle technical faults.
- By integrating real-time vehicle diagnostics to provide law enforcement with tools to identify unsafe vehicles on the road.
- The goal is to reduce accidents caused by mechanical failures and ensure adherence to vehicle safety standards.

USE CASE DESIGN



FUNCTIONAL REQUIREMENTS

Operational Core & Real-Time Monitoring

Module	Key Functional Capabilities
Access Control	Serves as the system gateway, validating credentials via secure password hashing and issuing JSON Web Tokens (JWT) for authenticated access.
Real-Time Dashboard	Establishes persistent WebSocket connections to push processed video frames with rendered bounding boxes and instant violation events to the user interface
Configuration	Enables customization via a text editor for DSL rules (with syntax validation) and an interactive interface for drawing and naming camera zones.

FUNCTIONAL REQUIREMENTS

Administration & Data Analysis

Module	Key Functional Capabilities
Violation Reporting	specific functionality for post-event analysis, allowing users to view chronologically sorted violations and filter by date range, rule, or camera. Includes access to detailed evidence such as images or video clips.
Infrastructure Management	Restricted to Admins, this module manages camera sources (adding/removing stream URLs) and user accounts (creating/editing roles and emails).
Data Integrity	Enforces strict formats, such as unique emails for users, valid DSL grammar for rules, and minimum vertex counts for zone polygons.

NON-FUNCTIONAL REQUIREMENTS

System Performance & Reliability

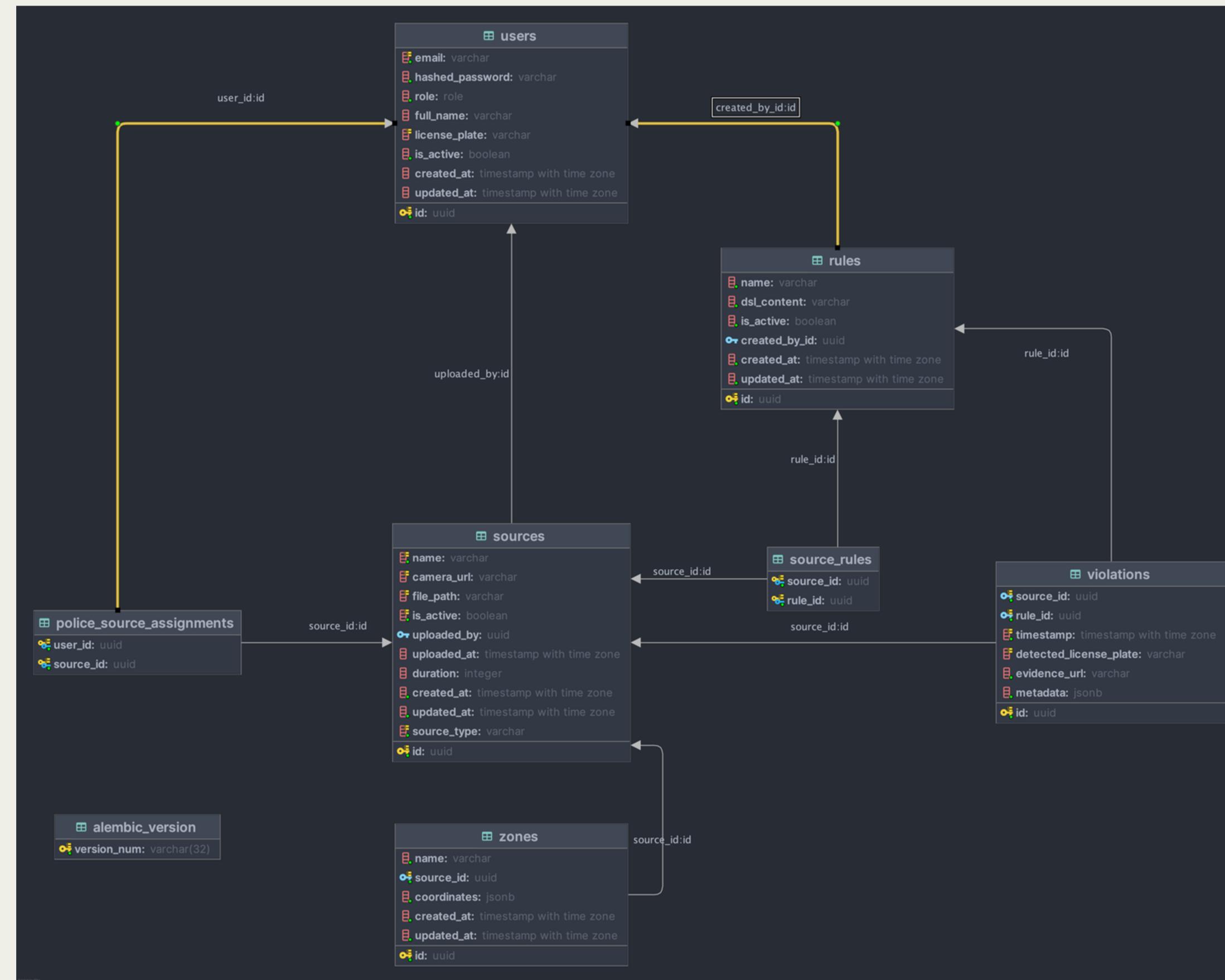
Category	Key Constraints & Metrics
Responsiveness & Latency	To prevent frame drops, the system must process single video frames (including AI evaluation) in under 40ms. Violation alerts must appear on the dashboard within 5 seconds of occurrence , and the dashboard itself must load in under 3 seconds.
Availability & Throughput	The architecture supports continuous 24/7 operation with fault isolation to prevent single stream errors from crashing the system. While the demo handles 2-3 concurrent streams , the design is scalable to dozens of live cameras for production.

NON-FUNCTIONAL REQUIREMENTS

Security, Usability & Maintenance

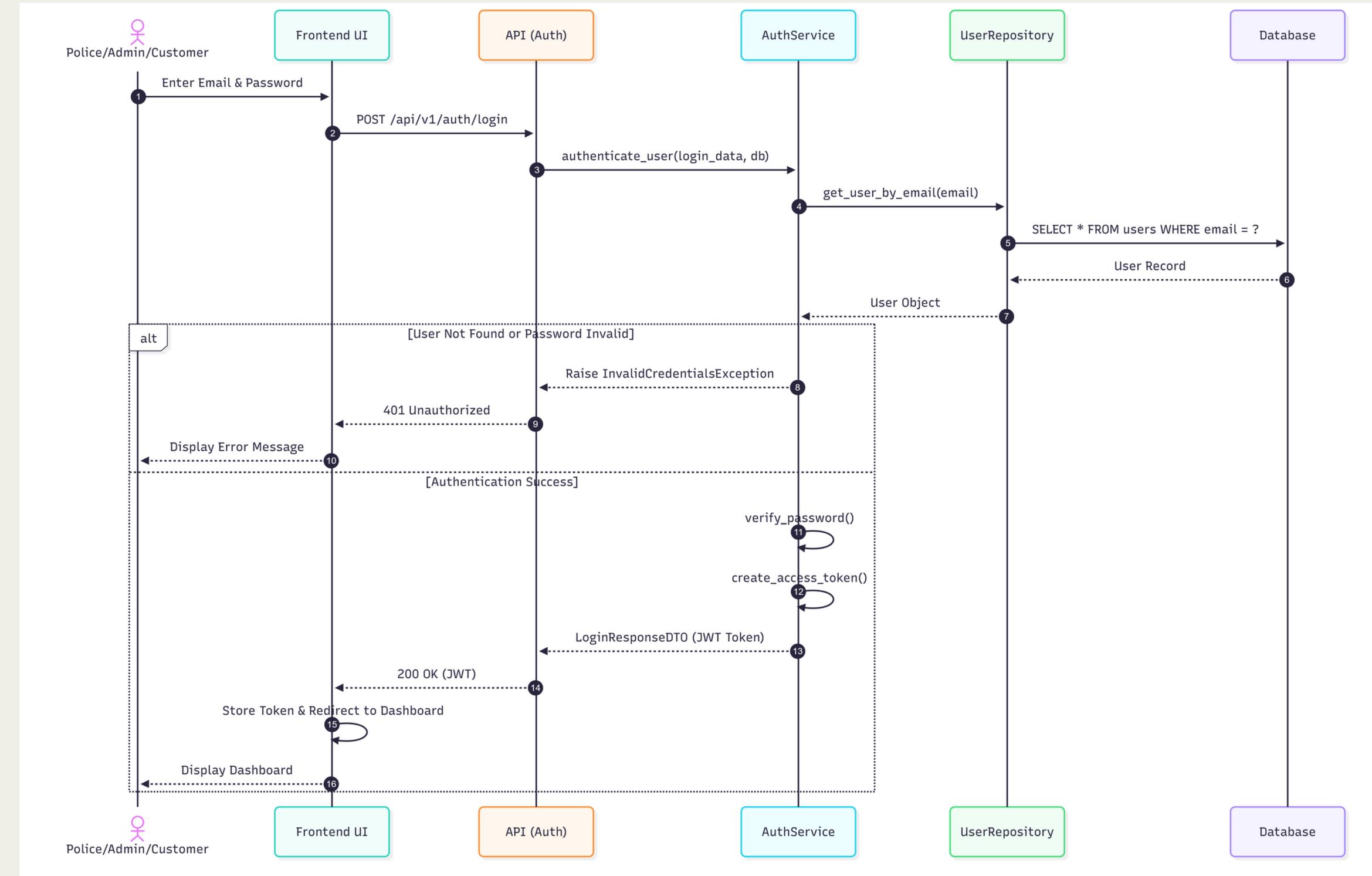
Category	Key Constraints & Metrics
Security Architecture	Access is secured via JSON Web Tokens (JWT) and Role-Based Access Control (RBAC). Data protection includes bcrypt password hashing and HTTPS encryption , alongside defenses against SQL Injection and XSS.
User Experience	The UI must provide informative error messages and immediate visual feedback (<200ms) for interactions. The Domain-Specific Language (DSL) is designed to be readable and close to natural language.
Maintainability	Development is streamlined using Docker and Docker Compose for easy local setup , with code adherence to established conventions and documentation.

DATABASE DESIGN



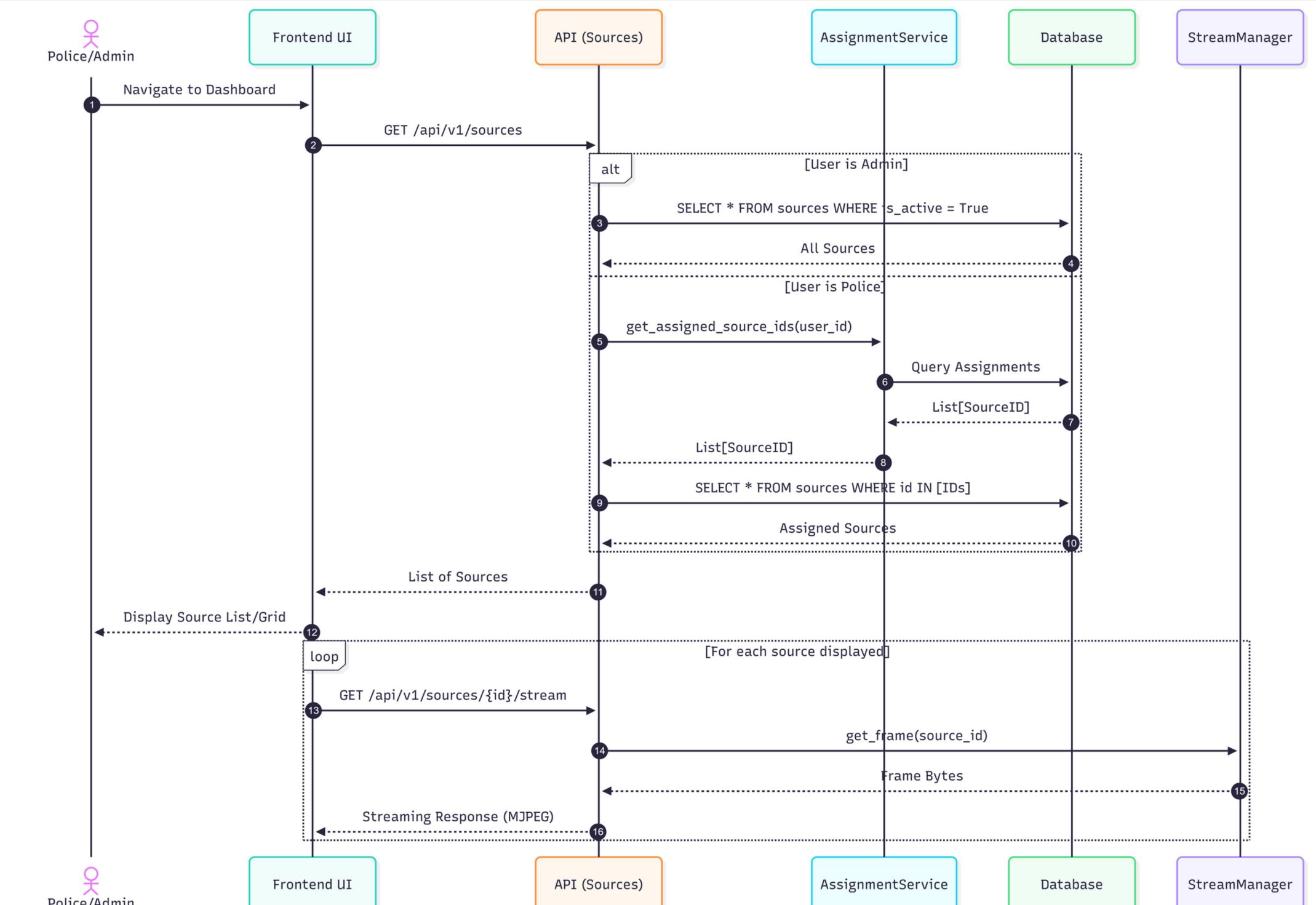
SEQUENCE DIAGRAMS

Use Case 1: Login to the system



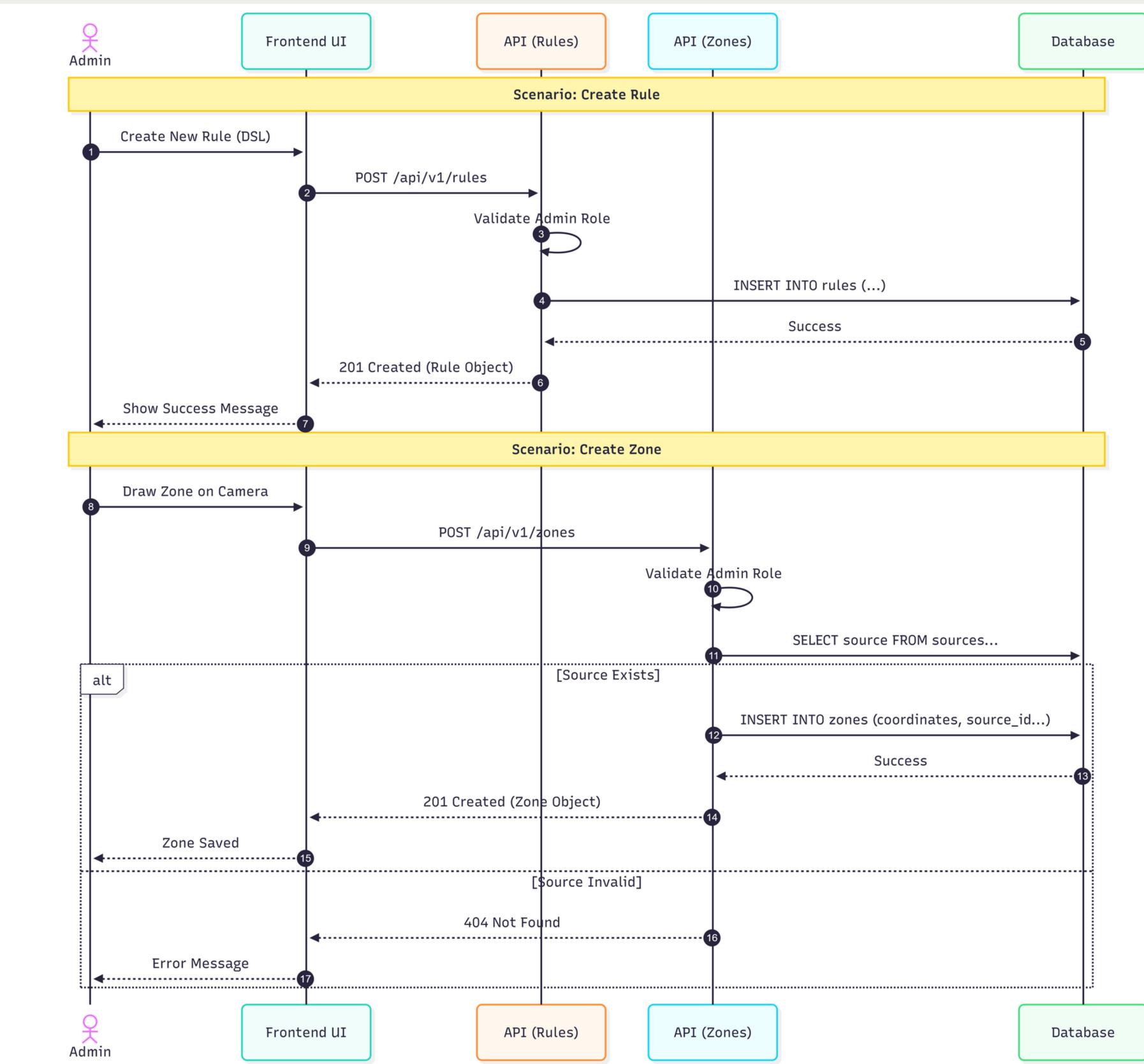
SEQUENCE DIAGRAMS (CONT)

Use Case 2: View dashboard



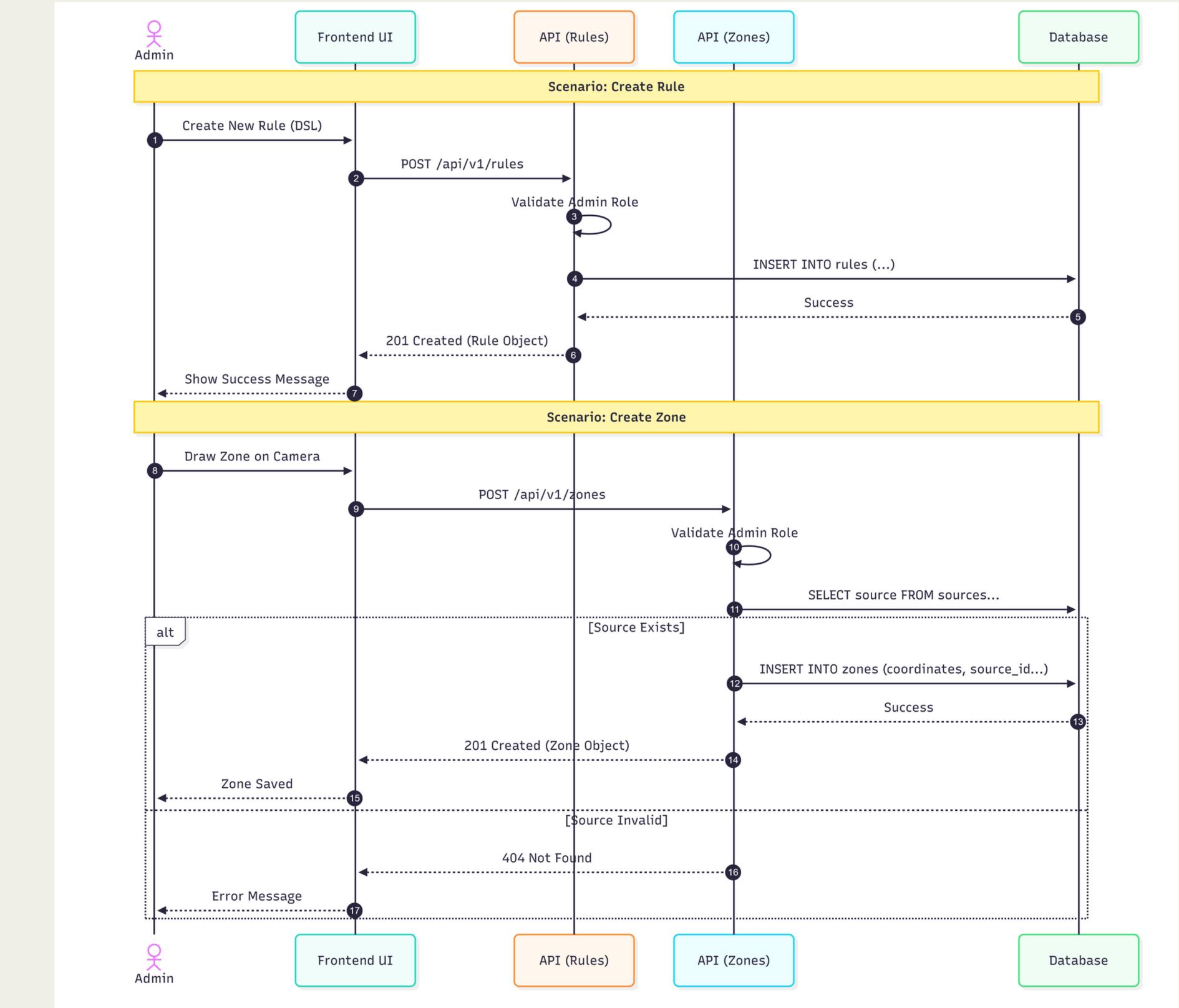
SEQUENCE DIAGRAMS (CONT)

Use Case 3: Manage System Configuration



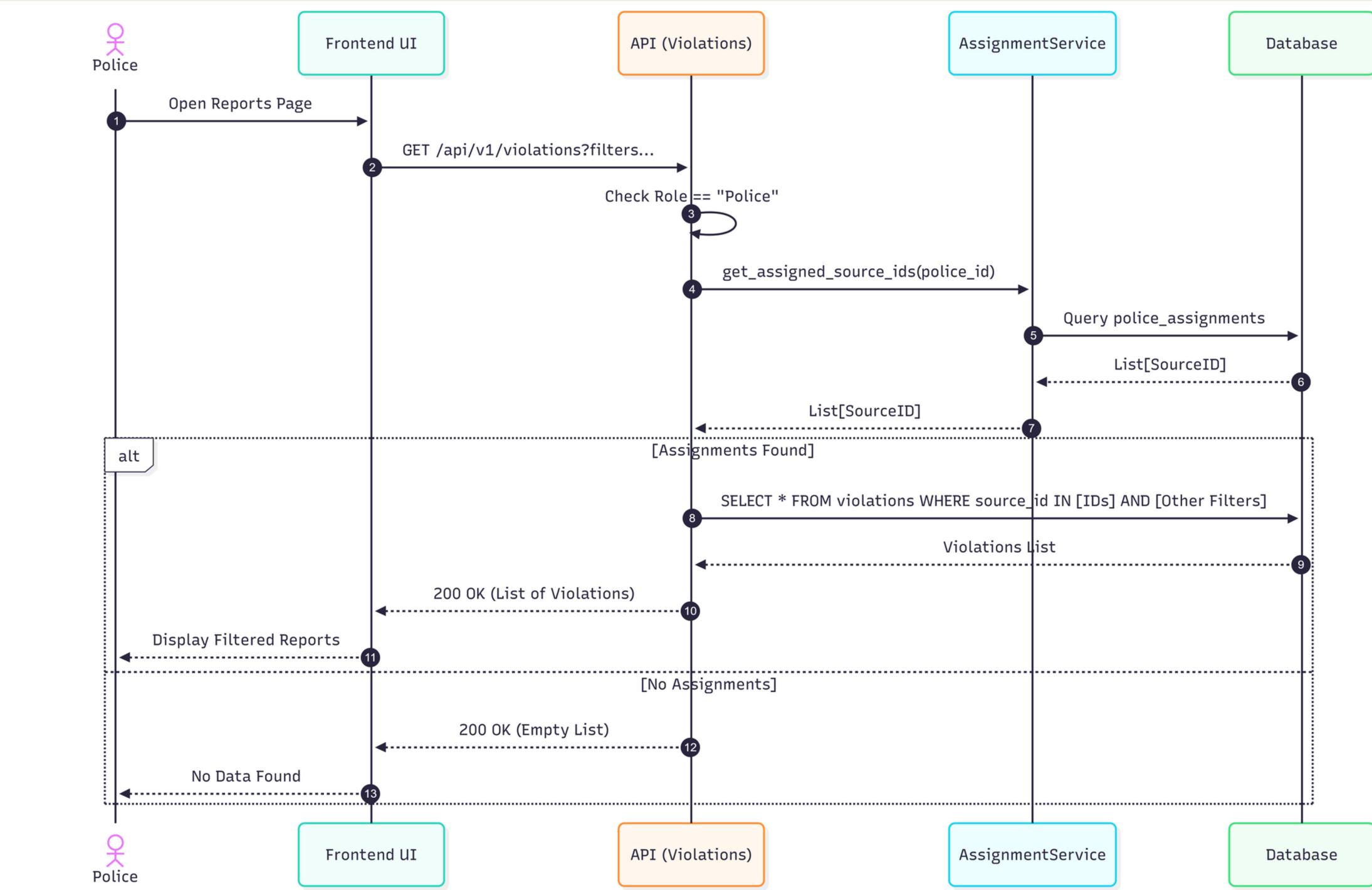
SEQUENCE DIAGRAMS (CONT)

Use Case 4: Assign Camera to Police



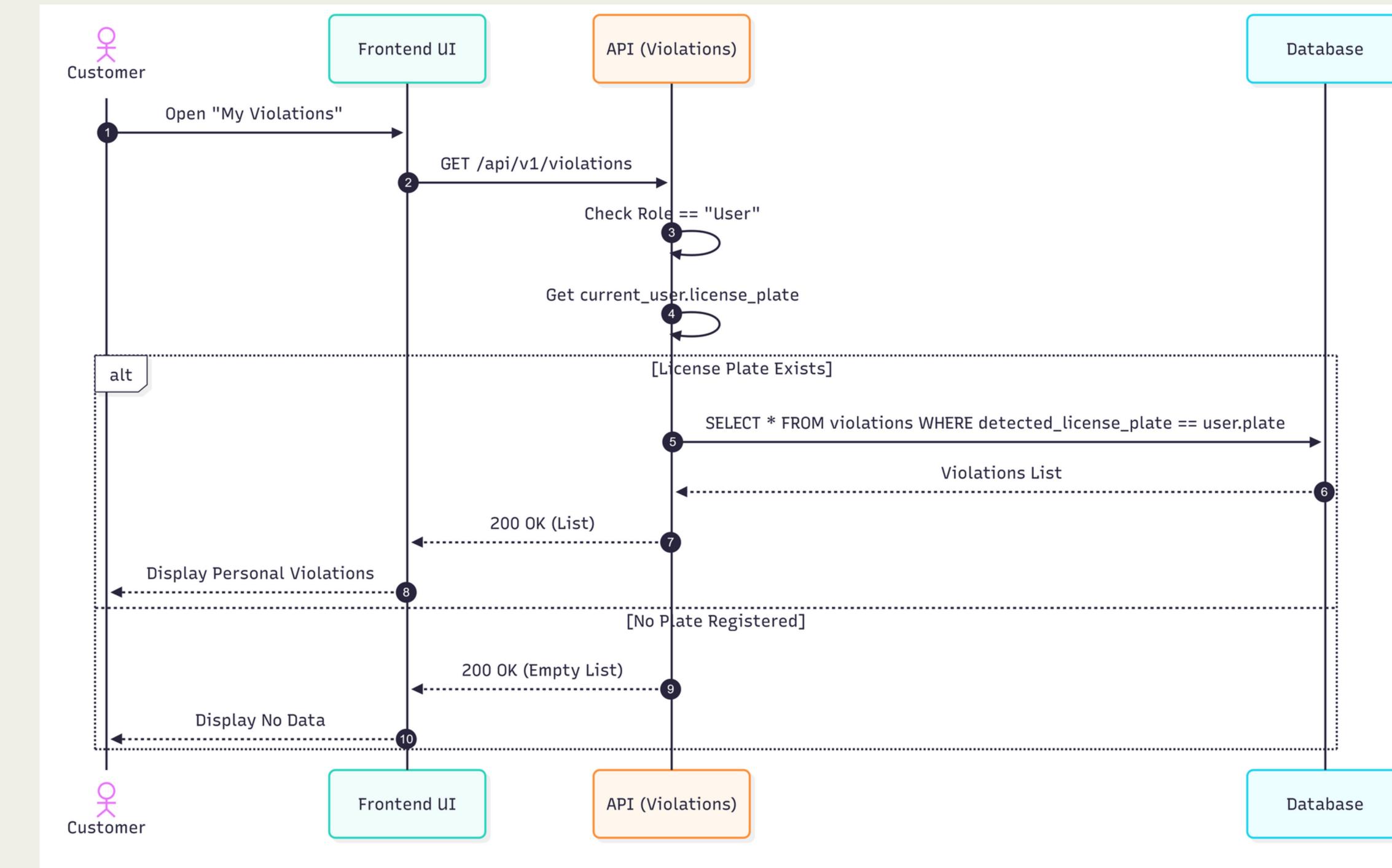
SEQUENCE DIAGRAMS (CONT)

Use Case 5: View and Filter Violation Reports for Police



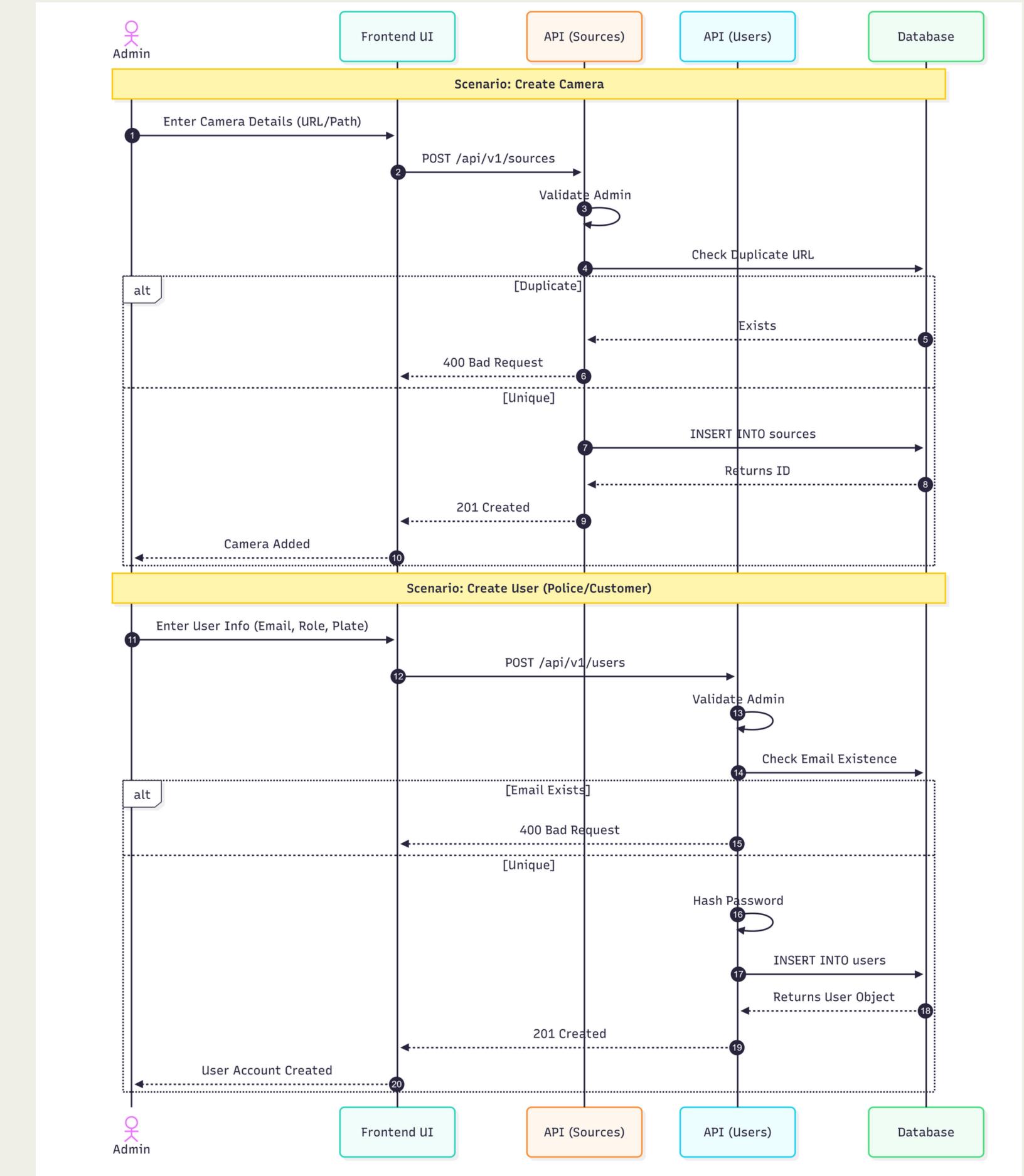
SEQUENCE DIAGRAMS (CONT)

Use Case 6: View Violation for Customer



SEQUENCE DIAGRAMS (CONT)

Use Case 7: Manage System Infrastructure



Demo

THANK YOU!

NEW PRODUCTS AND SERVICES



Servicing **Creative Industries**

Lorem ipsum dolor sit amet, adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

Simplifying **Technology**

Lorem ipsum dolor sit amet, lorem ipsum dolor sit amet, adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

Solving **Affordability**

Lorem ipsum dolor sit amet, adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

Innovating **Creative Finance**

Lorem ipsum dolor sit amet, lorem ipsum dolor sit amet, adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

PRODUCT #1

Lorem ipsum dolor sit amet, adipiscing elit, sed do eiusmod tempor lorum incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Lore ipsum dolor sit amet, adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex e.



**Analytics-driven / User-friendly / Cloud-based
AI-powered / Scalable**

PRODUCT #2

Lorem ipsum dolor. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Loren ipsum dolor sit amet, adipiscing elit, sed dom eiusmod tempor incididunt ut labore et do magna aliqua. Ut enim ad minim veniam, quis lorem ip nostrud exercitation ullamco laboris nisi uta aliquip exe.



Data-driven / Dynamic / Secure / Connected

COMPETITIVE ANALYSIS

We took a step back to survey our industry's competitive landscape, in order to gain insights that would allow us to better serve our clients. We achieved that and also gained a deeper understanding of our place in the creative industry.

COMPETITIVE ANALYSIS

Wardiere Inc.

Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

12 million monthly active users

Tiered ad brackets

Primarily desktop platform

100 employees

Hanover and Tyke

Lorem ipsum dolor sit amet, adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

100 million monthly active users

Ad-supported platform

2.9 million podcast titles

7000 employees

Salford & Co.

Lorem ipsum dolor sit amet, adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

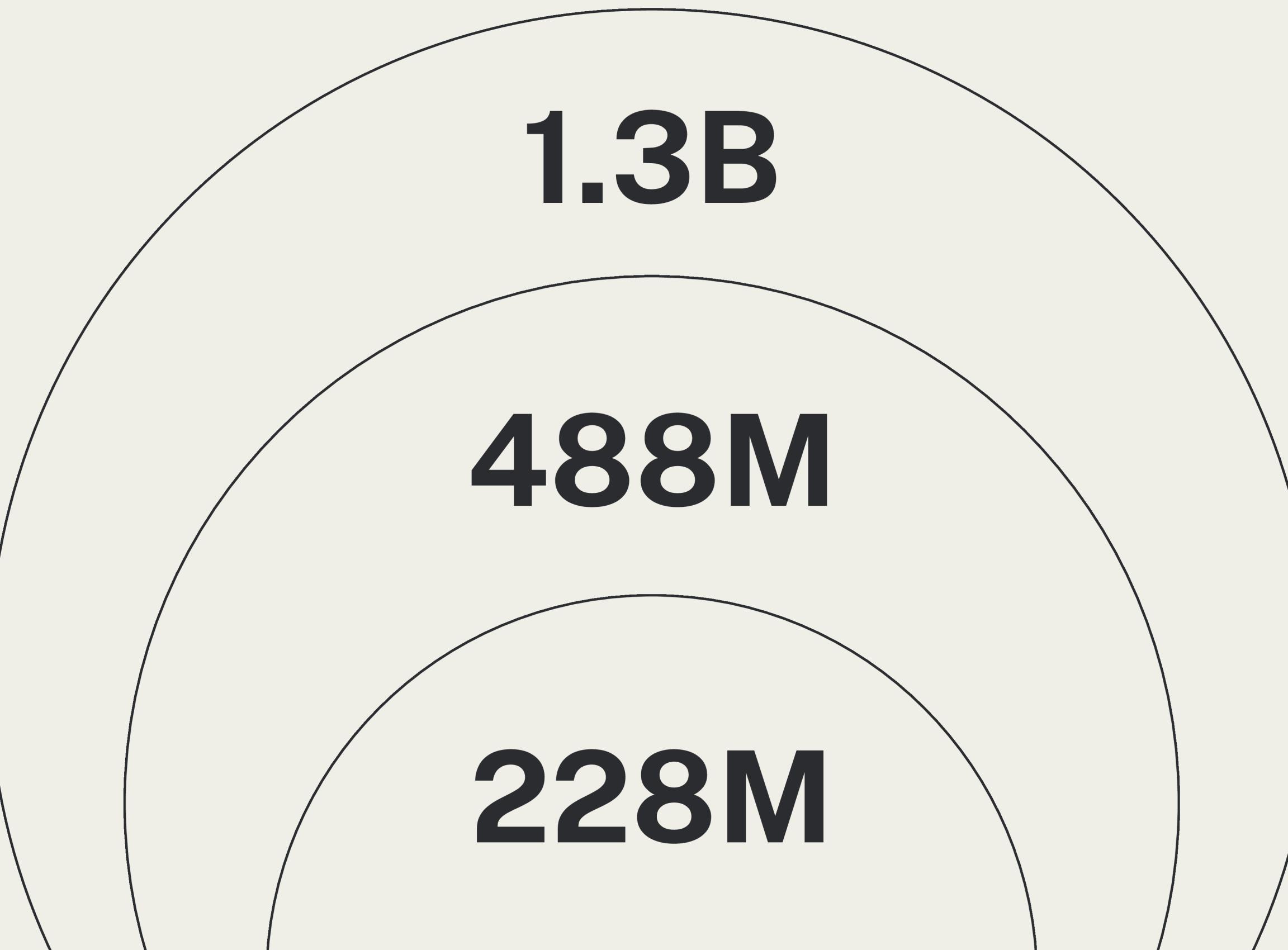
12 million monthly active users

Female content focus

Majority of users are ages 25-34

500 employees

SIZE OF MARKET



TAM

Lorem ipsum dolor sit amet, adipiscing elit, sed do eiusmod tempo. Ut enim ad minim lore veniam, quis nostrud exercitation ullamco ips laboris nisi ut aliquip.

SAM

Lorem ipsum dolor sit amet, adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

SOM

Lorem ipsum dolor sit amet, adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

OUR NUMBERS

1 year
in operation

Lorem ipsum dolor sit a
adipiscing elit, sed do eiusmod
lorem a tempor incididunt ut
labore et dolore agna aliqua. Ut
enim ad minim anveniam, quis
nostrud exercitation ullamco
laboris nisi ut aliquip ex ea
commodo consequat.

180k
subscribers

Lorem ipsum dolor sit amet, lorem
adipiscing elit, sed do eiusmod tempor
incididunt ut labore et lorem dolore
agna aliqua. Ut enim ad minim
veniam, quis nostrud exercitation
ullamco laboris nisi ut aliquip ex ea
commodo consequat.

3 million
raised

Lorem ipsum dolor sit a adipiscing
elit, sed do eiusmod lorem a tempor
incididunt ut labore et dolore agna
aliqua. Ut enim ad minim anveniam,
quis nostrud exercitation ullamco
laboris nisi ut aliquip ex ea
commodo consequat.

7
employees

Lorem ipsum dolor sit adipiscing
elit, sed do eiusmod tempor incididunt
ut labore et lorem dolore magna
aliqua. Ut enim ad minim veniam,
quis nostrud exercitation ullamco
laboris nisi ut aliquip ex ea
commodo consequat.

OUR NUMBERS

1 year
in operation

180k
subscribers

54k
MAU

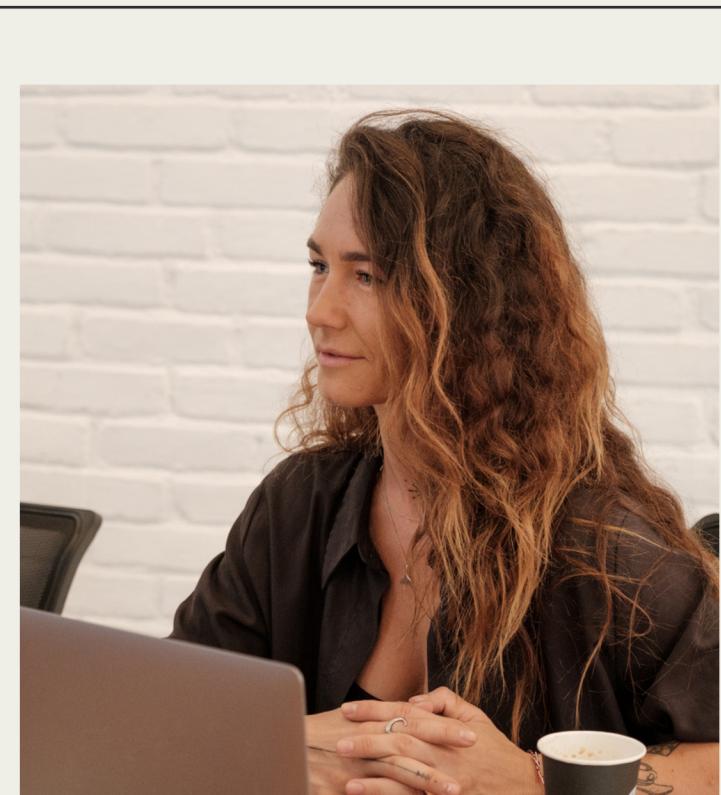
10.8k
DAU

3 million
raised

8
employees

7%
churn rate

44%
NPS



OUR NUMBERS

Our revenue projections over the next two years are very promising, with expected revenue tripling from year one to year two.

This growth is a testament to the strength of our product and the dedication of our team to driving success.



PATH TO INTEGRATION



Join us in revolutionising access to
ideas and emerging technologies.



Thank you!

NEW BUSINESS OPPORTUNITY

Henrietta Mitchell, Founder & CEO

Matt Zhang, Founder & CTO

13 September, 2023

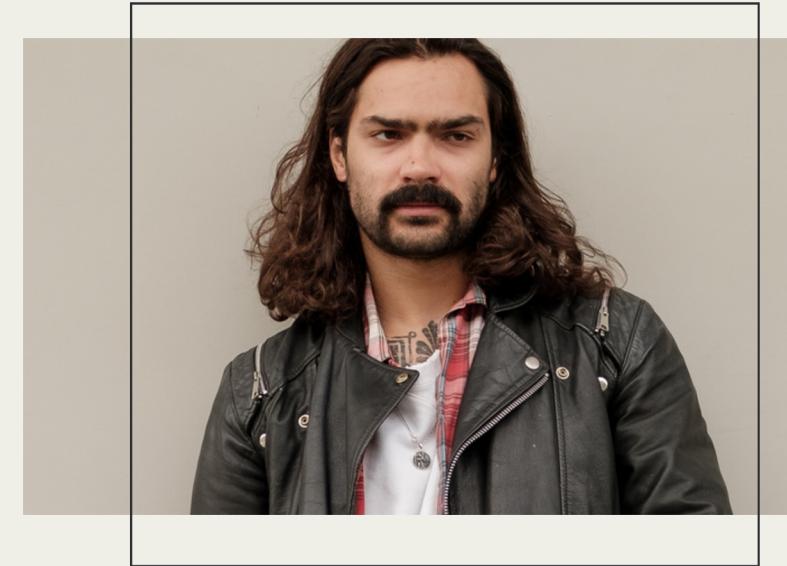
Ingoude
Company 

MEET THE TEAM



Founder & CEO
Henrietta Mitchell

Henrietta has spent nearly 15 years working with incredible brands to transform their vision and bring products to market. With her keen eye for design and her talent for collaboration, she's helped redefine the way that companies approach creativity and product development.



Founder & CTO
Matt Zhang

With a track record of leadership in innovative technologies and finance, Matt is now leveraging his expertise to bring new ideas to the creative industries. As an industry leader, he's dedicated to driving growth and fostering innovation in a sector that is ripe for disruption.



Advisor
Rufus Stewart

As a seasoned business advisor, Rufus has helped countless startups launch and succeed in today's competitive landscape. With a deep understanding of the challenges facing new businesses, he's committed to providing the support and guidance needed to turn entrepreneurial visions into reality.



Chief Counsel
Claudia Alves

Claudia is a skilled lawyer with a focus on the creative industries. With years of experience navigating the legal landscape of this dynamic sector, she fully understands the concerns and challenges facing the business.

Together, we can bridge
the gap in technology
access and opportunity.

