Survey Platform

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Problem Statement

The goal is to build a **secure and flexible survey platform** that addresses common issues with existing solutions. Current platforms often don't allow **targeted participant recruitment** and **store sensitive data insecurely**. They also don't give survey conductors control over data storage, often limiting them to using the platform's own servers. Moreover, these platforms are usually focused on either market research or academic surveys, lacking a comprehensive solution for various survey needs. This new platform aims to solve these issues by prioritizing security, flexibility, and reliability.

Need

- Lack of Indigenous Solution
- Data Privacy Concerns
- Bias in Survey Participation
- Need for Versatility

Challenges:

- Handling Microservices
- Enabling Custom Data Storage
- Balancing Security and Usability

Solution Overview

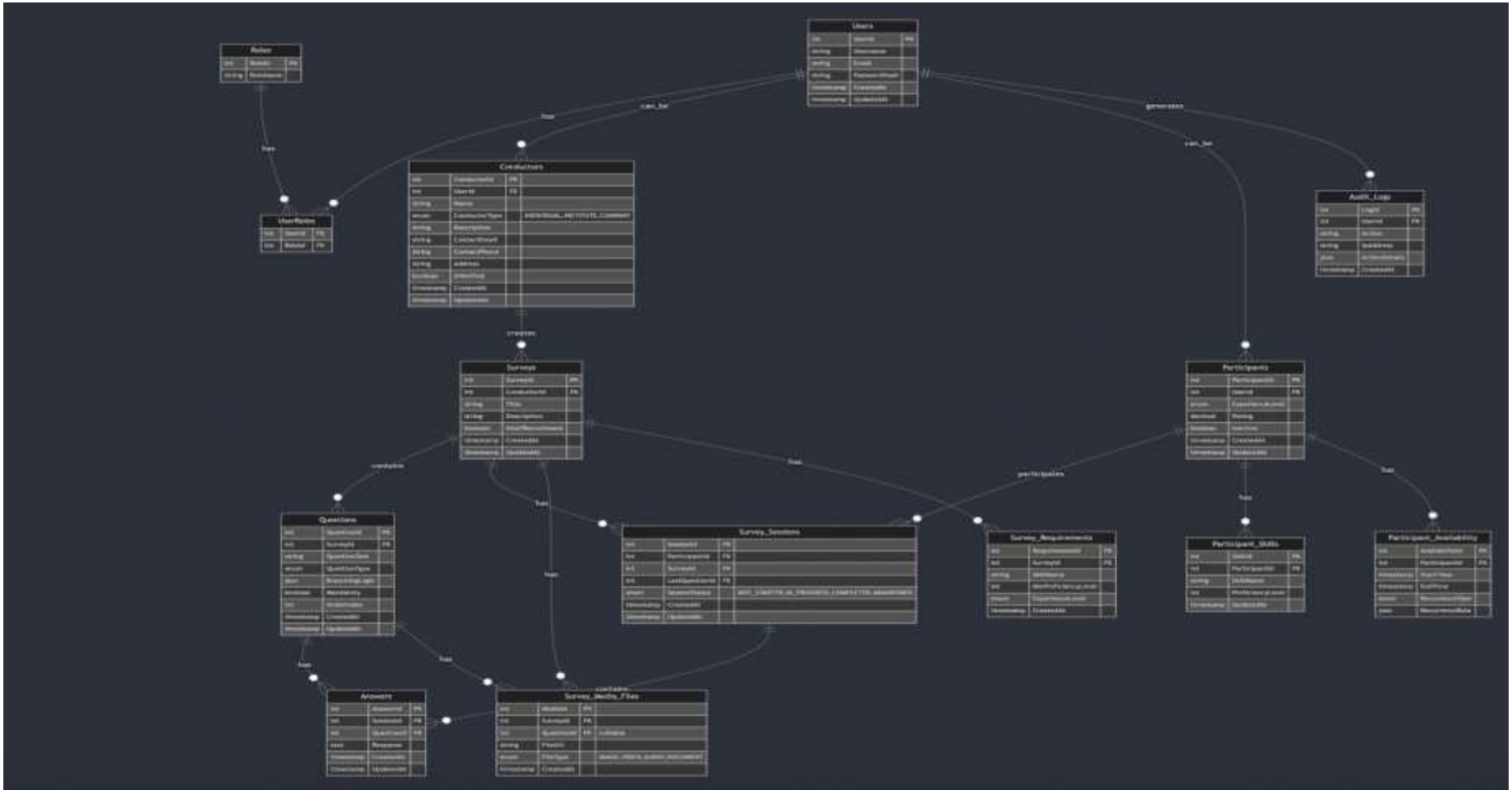
1. **Security First**
   - End-to-end encryption for sensitive data
   - Multiple deployment options including self-hosted
   - Compliance with various regulations
   - Comprehensive audit logging
   - Access Based Controls
2. **Flexible Data Storage**
   - Pluggable storage backends
   - Support for self-hosted or cloud storage
   - Custom retention policies
   - Automated backup systems
3. **Targeted Recruitment**
   - Advanced participant management system
   - Demographic profiling capabilities
   - Custom recruitment criteria
   - Automated matching system
4. **Universal Platform**
   - Support for both academic and market research
   - Customizable templates and question banks
   - Advanced logic building for complex surveys
   - Comprehensive analysis tools
   - Multiple export formats

Implementation

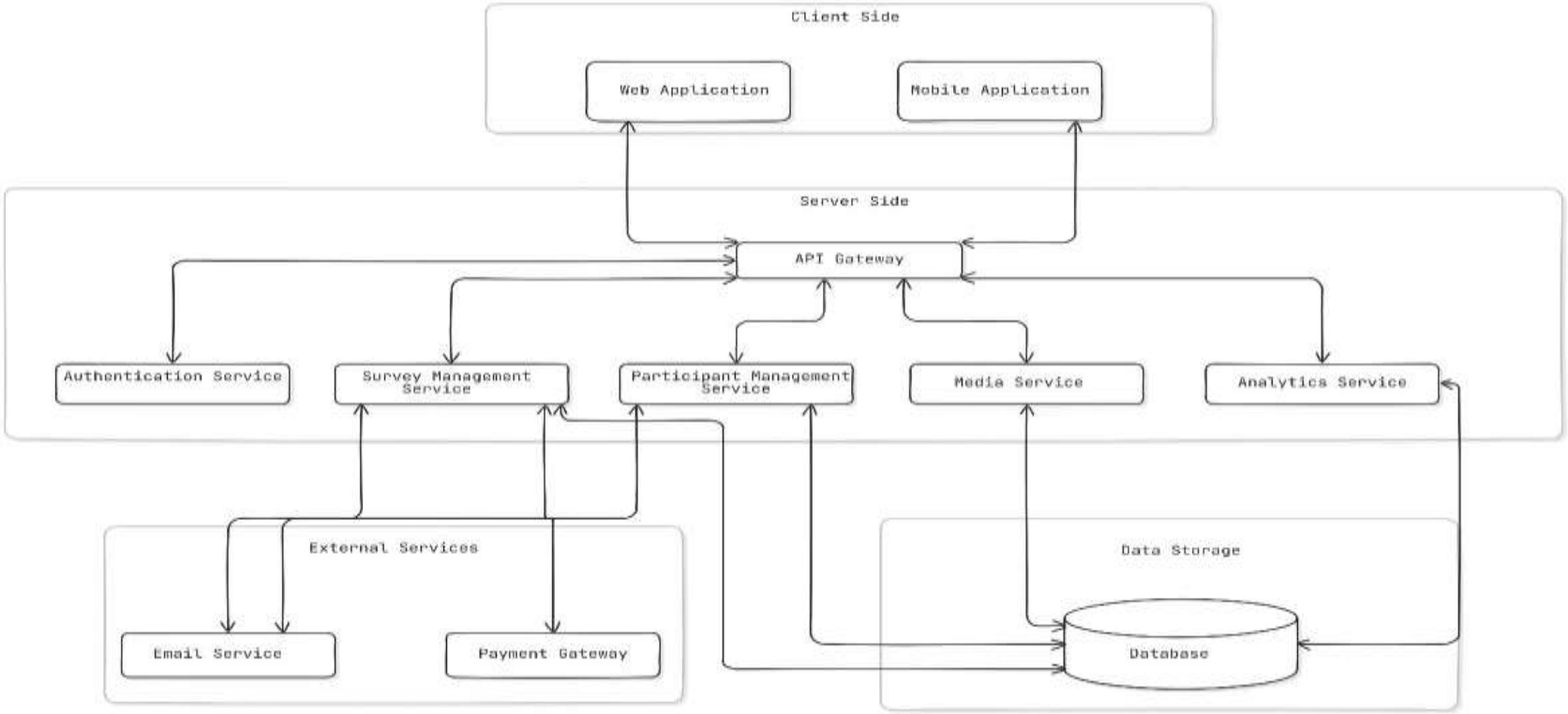
Design Document: https://docs.google.com/document/d/1Ws0B-GwNmCxHQ9AF7fx6CBMzIsiRg7JEbPwOeGqeTSk/edit?tab=t.0

Code Repository: https://github.com/rovin99/Survey-Platform

DB Schema


Roles
Users
has
can_be
generates
UserRoles
Conductors
Audit_Logs
creates
Surveys
Participants
conducts
has
participates
Questions
Survey_Sessions
Survey_Requirements
Participant_Skills
Participant_Availability
Answers
contains
Survey_Media_Files

High Level Design



Future Scope

Integrating RAG for improving engagements

Implementing Messaging feature between Conductor and Participants.

Decentralized Data Storage and Blockchain