Milestone 2

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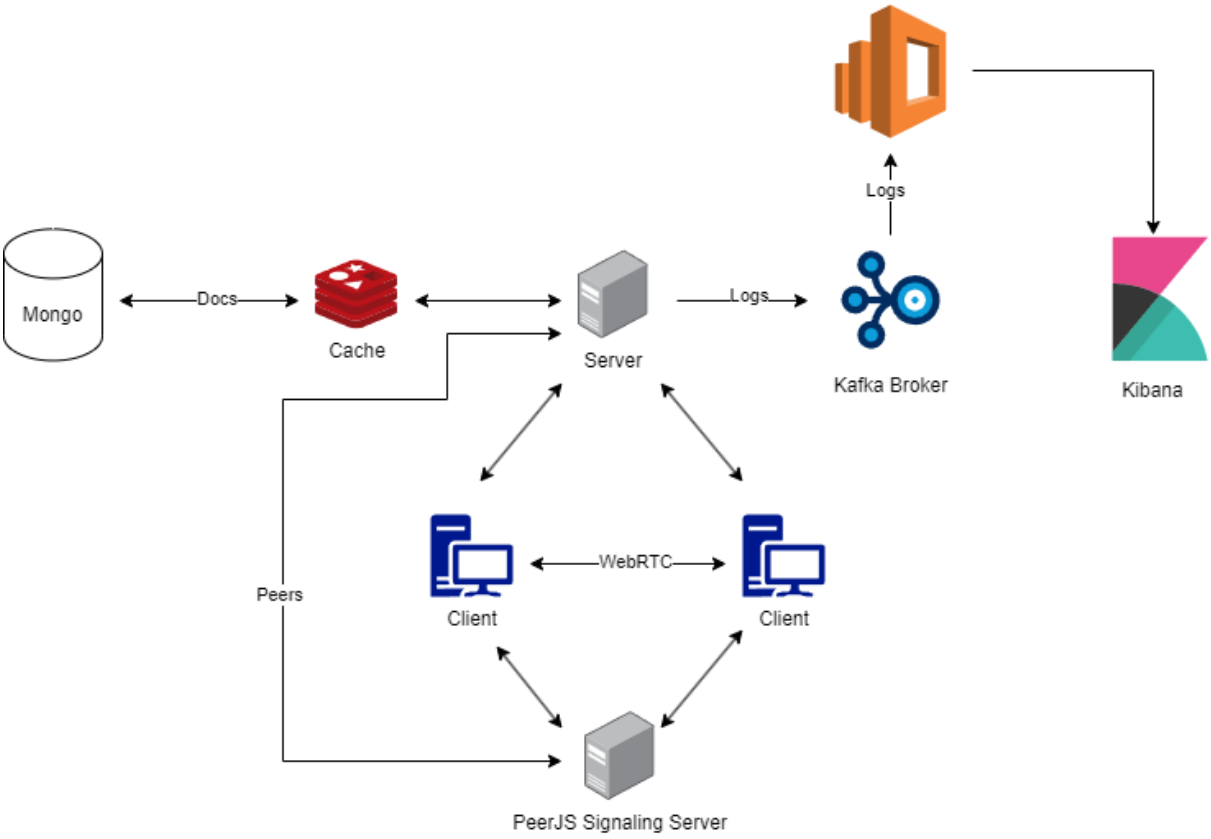

Components:

1. Client
   - Web interface that end users interact with
   - PeerJS for WebRTC connection between clients
   - **Technologies**: SvelteKit 4.2.10 with Tailwind CSS and Flowbite Svelte component library

2. WebRTC Signaling Server
   - Routes metadata for WebRTC client connections
   - Holds a list with the users connected for each session
   - **Technologies:** NodeJS 22.0.0

3. Backend Server
   - Data access layer between user interface and database
   - **Technologies:** Rust 1.77.0 with Axum 0.7.4

4. Database
   - Contains user accounts and documents
   - **Technologies**: MongoDB 6.0.7

Communication

- Client - Client
  - All clients form a mesh between them
  - Each user has an uplink and a downlink connection with every other user
  - When a client sends a message, it is broadcasted to every other user connected to the session
  - A CRDT protocol is used for synchronization without conflicts between clients when messages are broadcasted

- Client – Backend Server
  - Clients access a RESTful API over HTTP
  - Backend Server provides clients with access to the database

- Client - WebRTC Signaling Server
  - Clients request metadata in order to connect with other clients
  - Signaling Server ensures that each user has access to the list of the users connected to the same session