Conversify

Ditch the jargon, speak from the heart:
Imagine a space where conversations go beyond likes and emojis. Dive into deep, meaningful threads with friends, spark debates that branch out in exciting ways, and connect with like-minded folks on multiple levels. Our platform is more than just a digital space, it's a welcoming, inclusive community where every voice and opinion matters.

DESIGN DOCUMENT

Technology Stack

Frontend

- **Nextjs**:Next.js is a React framework that simplifies server-side rendering, static site generation, and client-side routing, offering a fast and SEO-friendly foundation for web applications.

- **TypeScript**: We use TypeScript to add static typing to JavaScript, enhancing code reliability and enabling better tooling support, leading to more scalable and maintainable applications.

- **Shadcn/UI**: We will use Shadcn to create customizable components for streamlined app development. Open-source design, enhancing user experience with ease of integration

- **Tailwind CSS**: A utility-first framework that simplifies development with pre-designed classes for rapid prototyping and easy style maintenance.

- **Uploading**: We will use uploadthing for file uploading and sharing with streamlined features for secure uploads and customizable sharing settings, enhancing collaboration for individuals and teams.

Backend

- **Nodejs**: We will use Nodejs for the backend developer with Nextjs for the server-side rendering. It's lightweight, efficient, and event-driven, making it perfect for building scalable network applications.

- **Express.js**: Manages routing, middleware, and HTTP requests on the server side, providing a robust foundation for RESTful APIs.

- **MongoDB**: Selected for its flexibility and scalability, storing various data types such as user profiles and property listings for the real estate website.

- **Mongoose**: Simplifies interactions with MongoDB by offering schema validation and modeling capabilities, optimizing database operations.
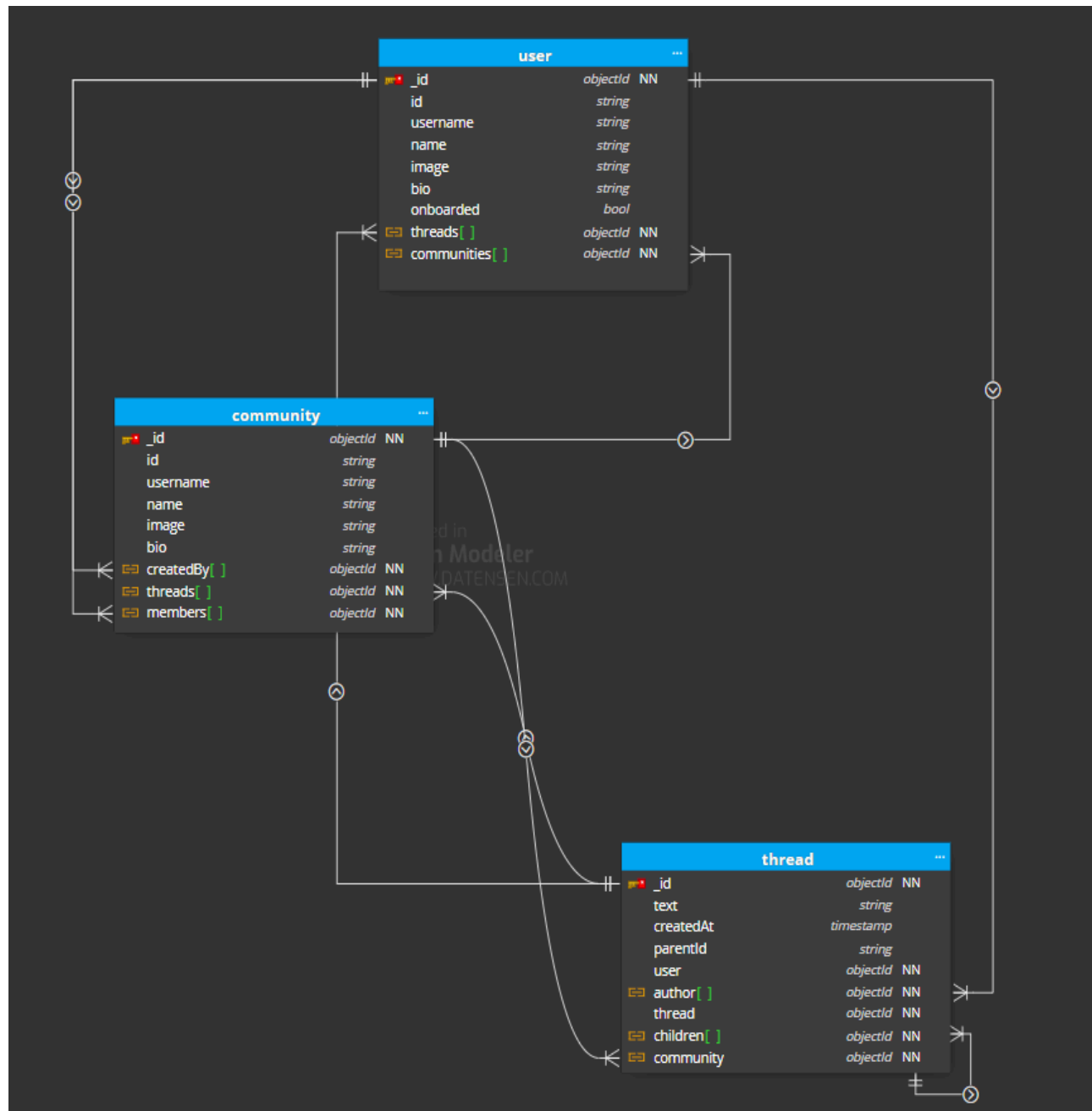
Authentication

- **Clerk:** Clerk manages the full session lifecycle, including critical security functionality like active device monitoring and session revocation.
  Offers multiple authentication options, including Gmail, GitHub, and phone number login, catering to a wide range of user preferences and ensuring inclusivity. For email and phone number logins, users receive a one-time password (OTP) for verification, enhancing security, and safeguarding user accounts from unauthorized access along with Bot Detection.

Deployment

- **Vercel:** Conversify will be deployed on Vercel, leveraging its seamless integration with the MERN stack, continuous deployment capabilities, and serverless architecture.
- **GitHub:** The website's source code will be hosted on GitHub for version control and collaboration, enabling automated deployments to Vercel.

Database Schemas

user

_id	objectId	NN
id	string	
username	string	
name	string	
image	string	
bio	string	
onboarded	bool	
threads[ ]	objectId	NN
communities[ ]	objectId	NN

community

_id	objectId	NN
id	string	
username	string	
name	string	
image	string	
bio	string	
createdBy[ ]	objectId	NN
threads[ ]	objectId	NN
members[ ]	objectId	NN

thread

_id	objectId	NN
text	string	
createdAt	timestamp	
parentId	string	
user	objectId	NN
author[ ]	objectId	NN
thread	objectId	NN
children[ ]	objectId	NN
community	objectId	NN

API Details

- **User Authentication and Authorization:**
  - /auth/sign-up : Register a new user
  - /auth/sign-in: Login a user
  - /auth/onboarding : Retrieve user profile information

- **User Profile:**
  - /root/profile/:id : Retrieve user profile information
  - /root/profile/edit : To edit user information
  - /root/profile/search : To search specific user

- **File Uploading:**
  - /root/uploadthing :To upload user files.

- **Community Handler:**
  - /root/communities/:id : To create communities.

- **Thread Creation:**
  - /root/create-thread : To create communities.
  - /root/thread/:id : To search a thread

Features

- **Authentication and Authorization with Clerk**: Our application utilizes Clerk for user authentication and authorization via Google, GitHub, Email& Mobile Numbers, ensuring secure access control and robust user profile management.
- **Expressing views**: Users can share opinions by creating or replying to threads on various topics along with a multilevel comment system.
- **Activity Page:** Stay updated on recent activities with our activity page, including thread replies and likes received.
- **Complete User Profile Page:** Customize your user profile easily to reflect your preferences and identity.
- **Community Management:** Create communities effortlessly, customize descriptions, and invite others via our email templates. Community owners

have authority over member roles and can manage community dynamics
effectively.

- **Community-specific Threads and Search:** Facilitate focused discussions
  within communities and explore specific communities and user profiles
  easily with our search feature.

Workflow: