

Software Projects

Qust

DISCORD-LIKE SOCIAL MEDIA BACKEND APP

- Designed and built a Discord-like social media server application, where users can chat in DMs (direct messages), chats, and text channels in customizable guilds.
- Designed RESTful API and WebSocket API on NestJS for easy and flexible real-time communication with frontend.
- Implemented JWT authentication with refresh tokens stored in Redis, and password hashing to protect data from unauthorized sources.
- Implemented a hybrid of RBAC (role-based access control) and ABAC (attribute-based access control), for flexible server permissions organization.
- Stored a variety of data in PostgreSQL, that include user statuses (online/offline/invisible), direct messages, chats, unread/read marks, text channels, user roles in guilds, audit journal for easier moderationin guilds, mentions.

Syntx

TASK BOARD BACKEND APP

- Built a task board backend application, for tracking progress of team members.
- Built several microservices on Node.js and Rust.
- · Implemented an API gateway, for communicating with gRPC microservices via one aggregated RESTful API.
- Implemented a role-based access control system.
- Designed a microservice, that reads permissions.yaml and inserts nodes in graph database Neo4j on run.
- Wrote ProtoBuf API specification for communication between gRPC microservices.
- Implemented a centralized logging module.

Chex

CHESS BACKEND APP

- Built a server-side application for playing chess online.
- Implemented real-time game input and real-time chat.
- Utilized PostgreSQL database to store user data, chat messages, and chess matches.

Untitled game

FAST-PACED FIRST PERSON SHOOTER

- Designed and implemented game mechanics and game logic in C# .NET, utilizing Godot Engine API.
- Utilized Godot node tree system to create various game structures, including game levels, NPCs, weapons, and character controller.

Skills

Languages, platforms: TypeScript, Node.js, NestJS

Databases, ORM: PostgreSQL, Redis, SequelizeORM, TypeORM

Other: Git, RESTful API, gRPC, Socket.IO, Swagger, JWT, microservices

Familiar with: C#, Rust, GraphQL, HTML, CSS, ReactJS

Passions and Hobbies

Big projects and complex tasks spark fire of solving a challenge in me. Love making a difference and being impactful. I'm in passionate love with game development and programming in general. Enjoy chess and voice acting.