OA Virtual Office Presentation

By: Gladys Toledo-Rodriguez

Purpose

- Objective:
  - Develop a virtual web office to facilitate remote collaboration, providing an in-office atmosphere for employers and coworkers joining remotely.

- Benefits of Remote Work:
  - Eliminates Commuting
  - Flexible Scheduling
  - Reduced Office Expenses

- Challenges of Remote Work:
  - Communication Costs
  - Onboarding and Team Building
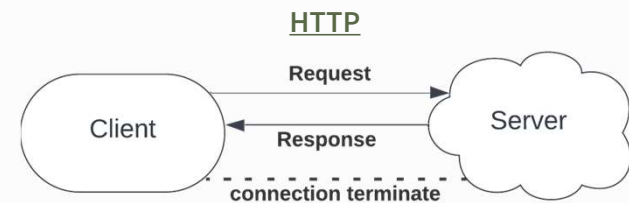 - Home Distractions

WebRTC - Terms

- Client:
  - Have private address
  - Ex: Your Browser
  - Our client is the webpage

- Server:
  - Access them directly
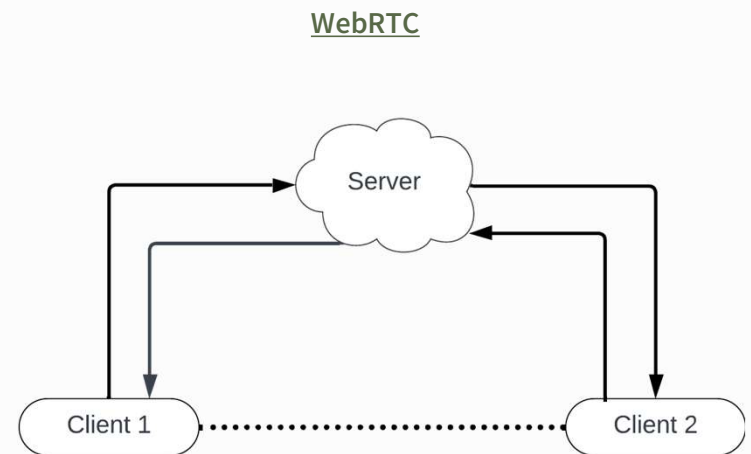 - Ex: Google server
  - Our server is localhost:3000

- HTTP - One-time connection between client and server
  - Request is sent, Response received and then connection closes

- WebSocket – Continuous connection between client and server
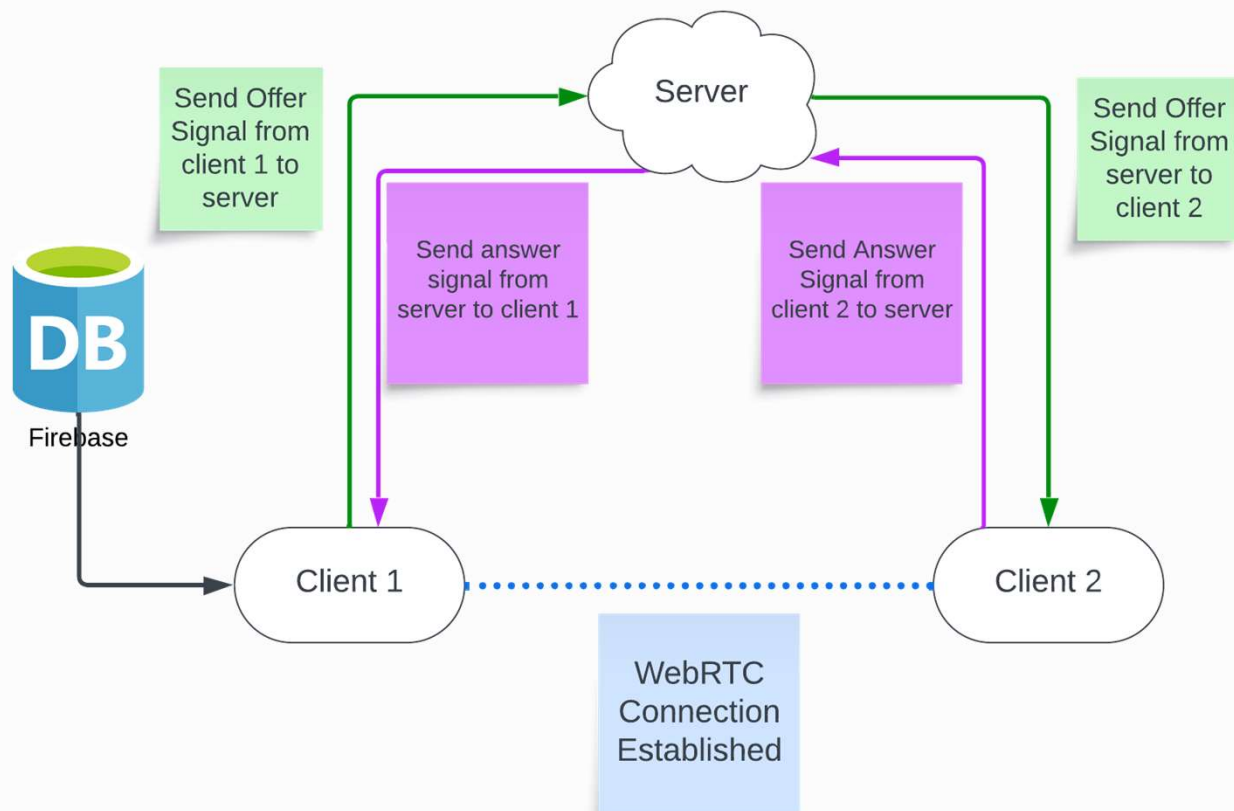 - Stay connected until either client or server terminates the connection

WebRTC

- WebRTC – Continuous connection between clients

- Each client has their own data
- Client 1 initiates call and sends an offer through a server
- Server sends offer to client 2
- Client 2 answer the offer sending it back through the server to client 1
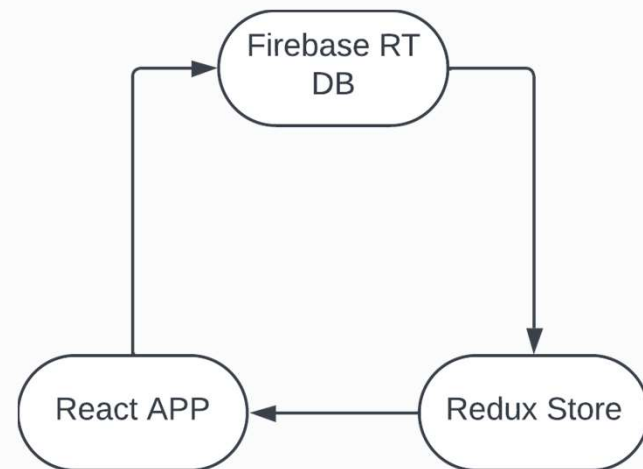- If connection is established clients can now to talk to each other

WebRTC

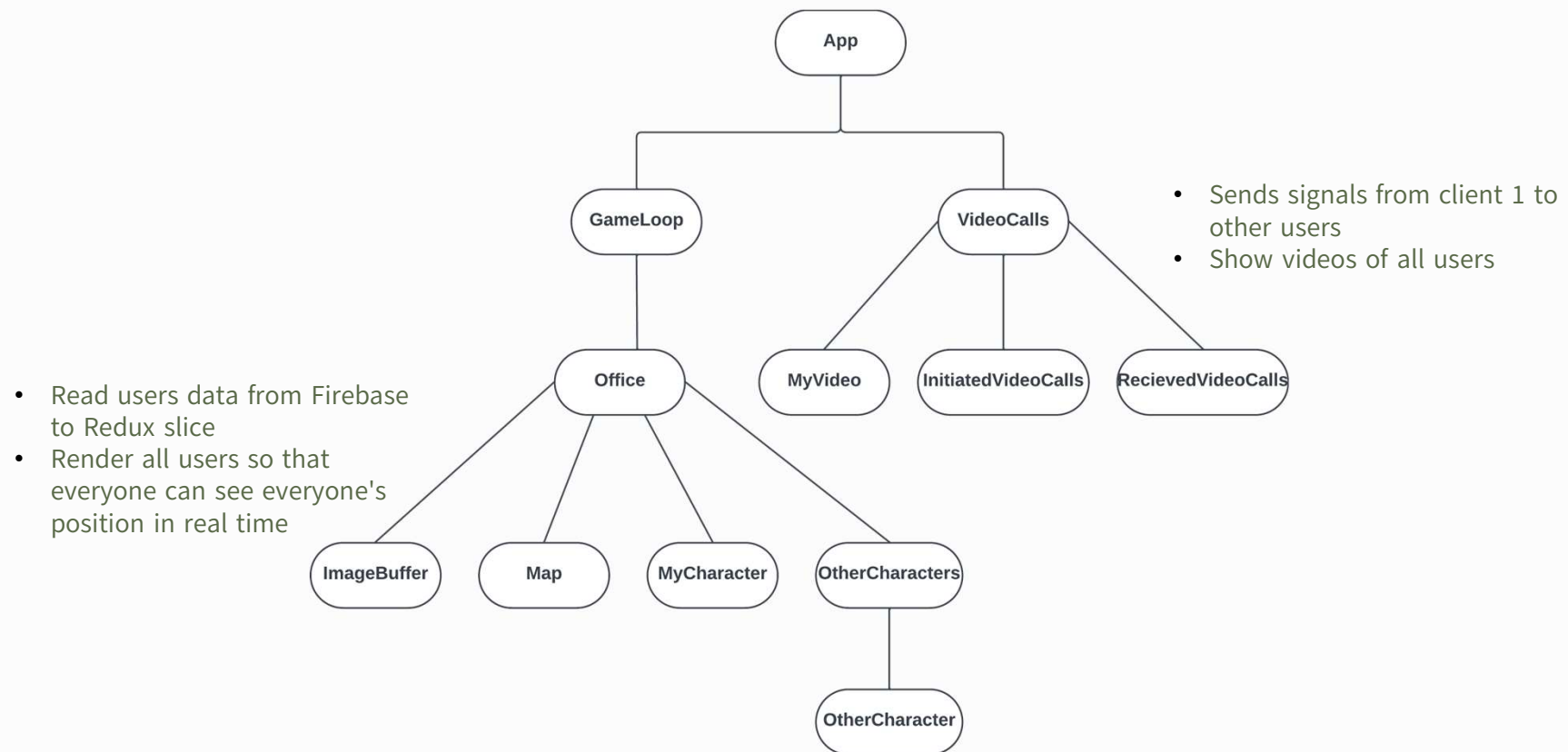# Virtual Office Webrtc

Architecture:
Character Movement

- Update Redux Slice when Firebase has an update. Then character moves in app

Architecture

- Sends signals from client 1 to other users
- Show videos of all users

- Read users data from Firebase to Redux slice
- Render all users so that everyone can see everyone's position in real time

Live Demo

- **Github Link:** https://github.com/gtoledorodriguez/oa_virtoffice_project