

GameHub

Product Owner: Benito Reyes

Scrum Master: BranDon Brown

Developers: Benito Reyes, BranDon Brown, Mekhi Green, Ramsay Burls

Sprint Goal

Enhance gameplay and user experience with AI single-player and suggestions, mobile and Safari improvements, retro theme, light/dark mode, profile & settings pages, and easier room joining.

Stories Delivered

As a user, I want to play against AI in Single Player so that I can have fun alone without friends.

→ The AI in Single Player has different levels of difficulty for a variety of

As a user, I want to join a game without typing in a code so I can join friends easily.

→ Players can join open matches directly through lobby selections with or without entering room codes.

As a user, I want to see a game menu for Drop 4 so that I can choose between game modes.

→ A main menu allows users to view and select available Drop 4 game modes before starting a match.

As a user, I want to navigate from the GameHub menu to Drop 4 so that I can easily access and start the game.

→ Selecting Drop 4 from the GameHub menu launches the game while preserving session data.

Updated Design Artifacts

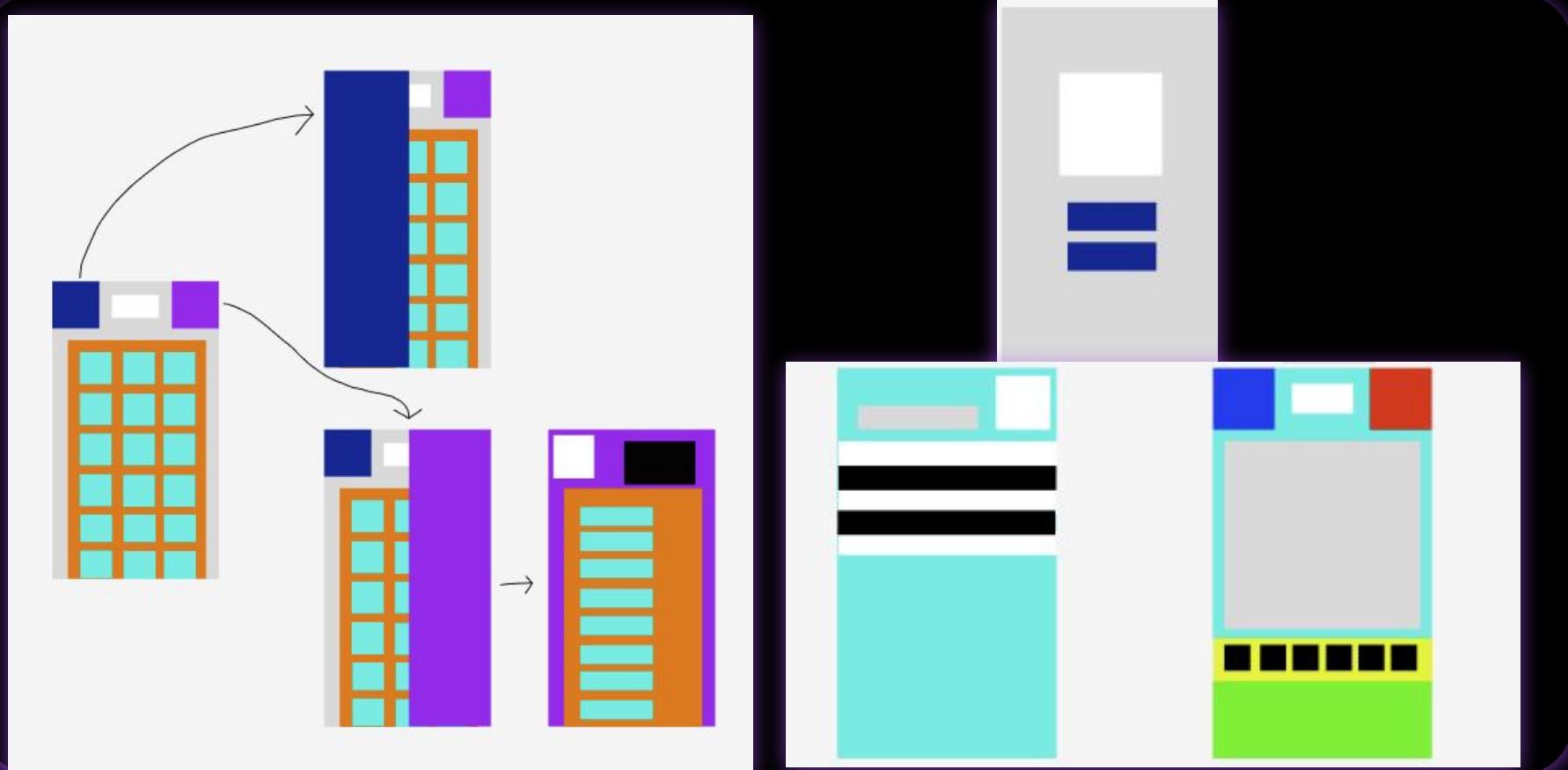
Sprint 2

```
3. Players take turns dropping pieces on the board.  
4. Moves are broadcast to the opponent via Socket.IO.  
5. Win condition is checked locally and announced.  
  
## Chat Flow  
  
1. Backend generates StreamChat token using `socket.id` as `userId`.  
2. Token and userId are sent to frontend via `chat-auth` event.  
3. Frontend connects to StreamChat using `connectUser()`.  
4. A `gaming` channel is created or joined.  
5. Players can send and receive messages in real-time.  
  
## Security & Environment  
  
- `.env` file stores API secrets (never committed)  
- StreamChat token is generated server-side only  
- Frontend receives only the token and userId through requesting get from backend  
- passwords are encrypted  
## Dependencies  
  
- `express` - initial HTTP server  
- `socket.io` - real-time game communication  
- `stream-chat` - chat SDK (client + server)  
- `dotenv` - environment variable management  
- `Node` - another server for browser testing  
- `bcrypt` - used to encrypt password  
- `cookie` - used to set userId and token cookies  
- `neon` - the postgresql database being used  
- `uuid` - used to generate random userId's and roomId's  
- `vite` - used to package streamchat bundle for browser/html usage  
- `prisma` - used to query the database more easily
```

Sprint 3

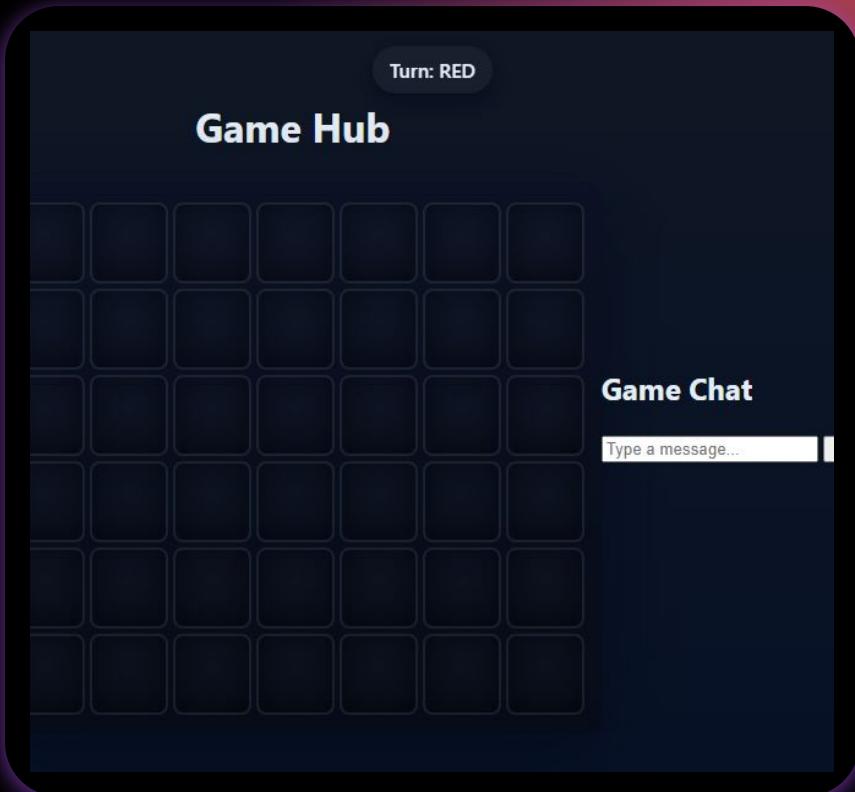
Architecturally nothing changed but there has been database clean up in its place (deleting rooms when the last users leaves it, etc)

Figma

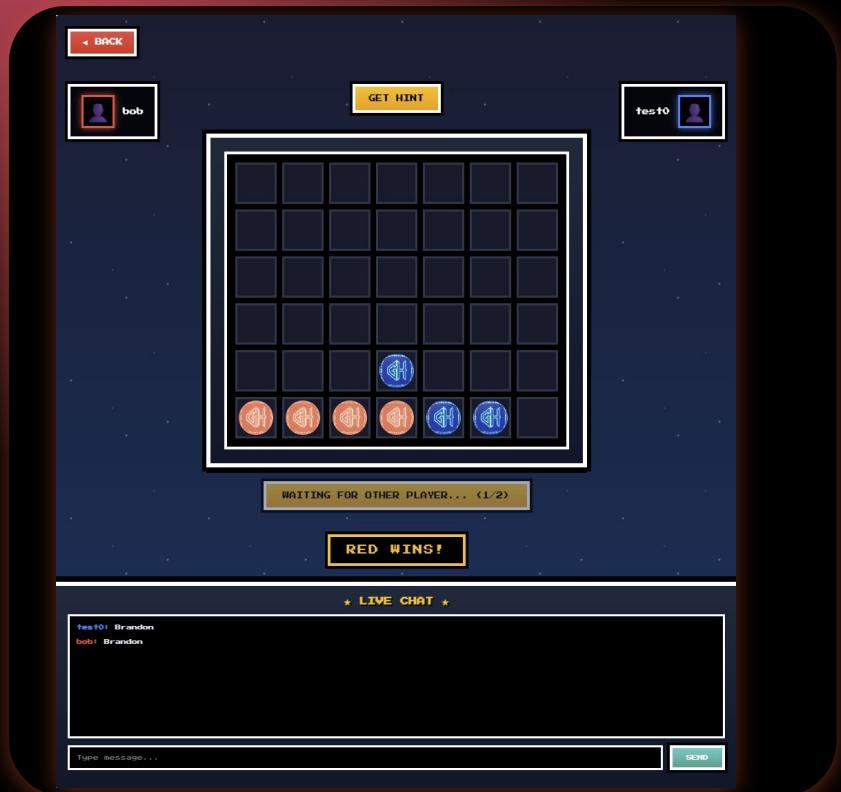


Updated Design Artifacts

Sprint 2



Sprint 3



Demo Link

[https://gamehub-ikpr.
onrender.com](https://gamehub-ikpr.onrender.com)



THANK YOU