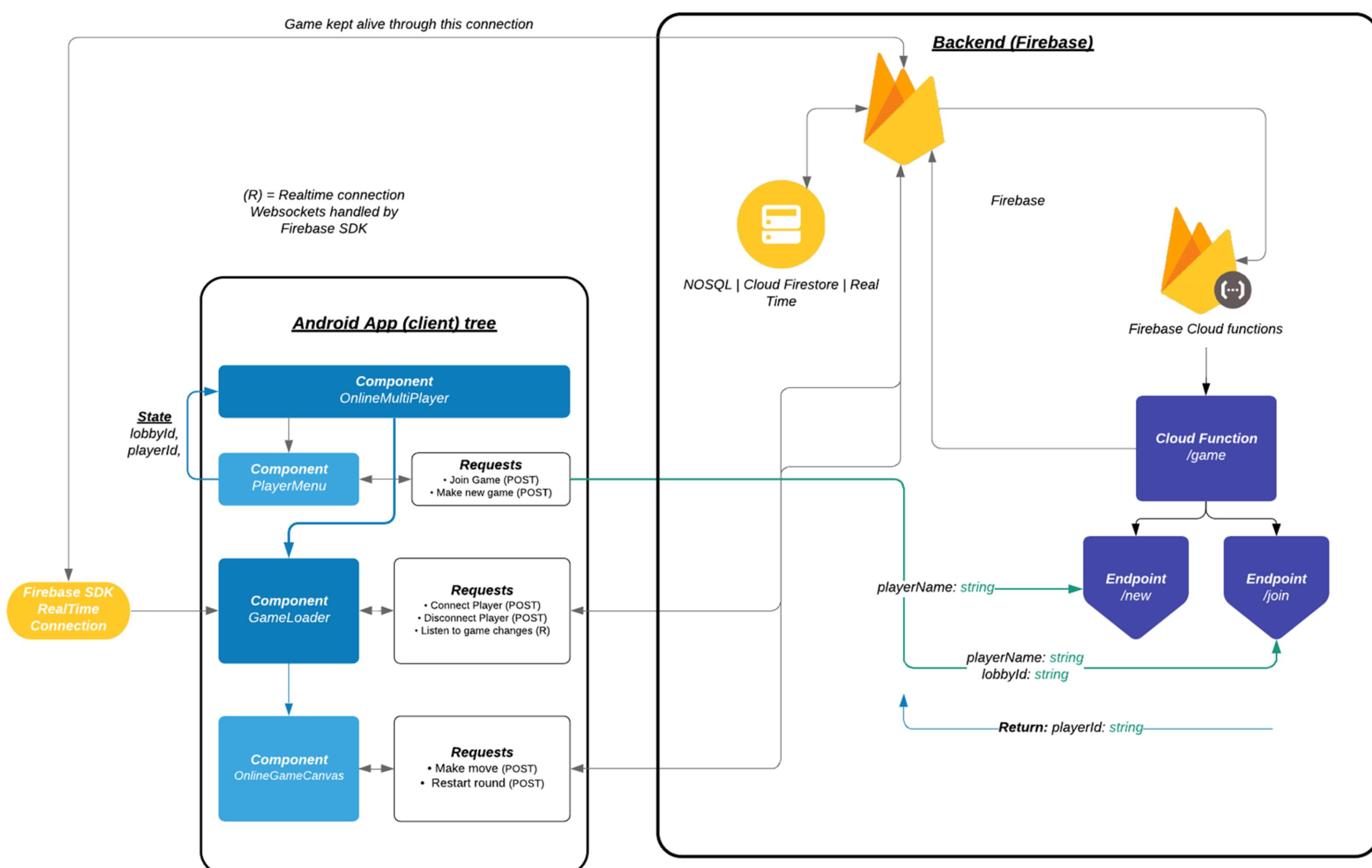
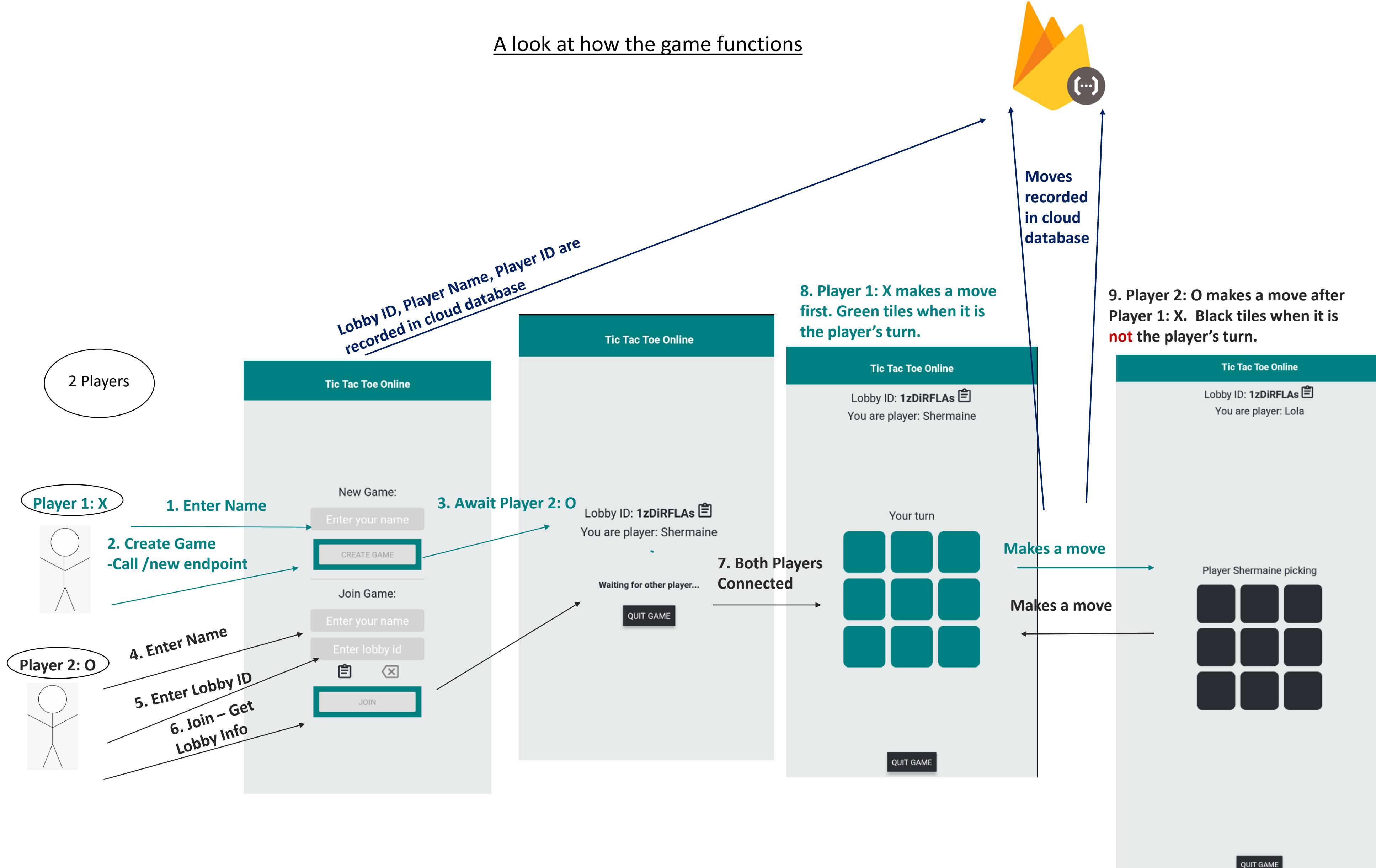


System Architecture and infrastructure components



A look at how the game functions



A look at the data records in Cloud Database



Various Lobby ID , date/time created, and fieldTypes of Tic Tac Toe Grid with moves stored

The screenshot shows the Cloud Firestore interface for the 'lobbies' collection. Document **1zDiRFLAs** contains the following fields:

- lobbies**: A subcollection containing documents with IDs **4UIZSD7Ej**, **F_N4vC-Sd**, and **m9Y33aEsr**.
- fieldTypes**: An array of 8 elements representing the Tic Tac Toe grid, with values: **0: "x"**, **1: "o"**, **2: "o"**, **3: "o"**, **4: "o"**, **5: "x"**, **6: "x"**, **7: "x"**, **8: "x"**.
- gameStarted**: A boolean value set to **true**.

Player Name and ID are stored.

The screenshot shows the Cloud Firestore interface for the 'lobbies' collection. Document **1zDiRFLAs** contains the following fields:

- lobbies**: A subcollection containing documents with IDs **4UIZSD7Ej**, **F_N4vC-Sd**, and **m9Y33aEsr**.
- players**: An array of 2 elements representing connected players:
 - 0**: Player **Shermaine** (id: **9sXgyQJZEa**, name: **Shermaine**)
 - 1**: Player **Lola** (id: **uzwcVP5gqj**, name: **Lola**, resetable: **false**, startingPlayer: **"9sXgyQJZEa"**, turn: **"uzwcVP5gqj"**)

AWS Lambda versus Firebase



- Ease of deployment
- Efficient scalability
- Cost



Firebase

Future Improvements

- Garbage Collection