Instructions to Run the Application

**Project Overview:**

This multiplayer web application allows multiple players to interact with a shared 10x10 grid. Players can select a block and update it with a Unicode character. Once a player updates a block, they can no longer modify any other grid blocks, and the updated grid is synchronized in real-time for all connected players. Additionally, players can view the current number of online us

**Technologies Used:**

* **Frontend**: ReactJS, Socket.IO Client
* **Backend**: Node.js, Express, Socket.IO Server
* **Hosting**: Vercel (Frontend), Render (Backend)

**Steps to Run the Application Locally:**

**1. Clone the Repository**

git clone https://github.com/sarathsathish07/Gamitar.git

cd Gamitar

**2. Install Dependencies**

Run the following command in the root directory:

npm install

Navigate to the **frontend** folder and install dependencies:

cd frontend

npm install

cd ..

**3. Start the Application**

To start both the frontend and backend simultaneously, run the following command:

npm run dev

This will start the backend on port 5000 and the frontend on port 3000.

**4. Access the Application**

Once the application is running, open your browser and navigate to:

http://localhost:3000

You will be able to register, log in, and interact with the grid.

**Live Application:**

You can access the live version of the application here:

* **Live Demo**: [Gamitar on Vercel](https://gamitar-peach.vercel.app/)

**Key Features:**

* **Real-Time Grid Updates**: Allows players to see grid updates in real-time through WebSockets (Socket.IO).
* **Player Count**: Displays how many players are currently online.
* **Grid Locking**: Once a player submits a character in any block, they are restricted from further updates.
* **User Authentication**: Users can register and log in to interact with the grid.