Tilse Matching Game Documentation

Introduction

Welcome to the Clash Of Clans Tilse Matching Game! This interactive game allows users to test their memory by matching pairs of cards. The game starts with the user entering their name, and upon completion, it displays a congratulatory message along with the user's score.

Folder Structure

> Component

Card.js: Renders individual cards for the game.

Cards.js: Manages the main game logic.

> Pages

Congratulation.js: Displays a congratulatory message and the user's score.

App.js: Handles routing and overall application structure.

index.js: The entry point of the React application.

index.css: Global styles for the application.

NameInput.js: Handles user input for their name.

NameInput.css: Style for the Name input box.

Components

- Card Component (**Card.js**)

This component renders individual cards, receiving properties like **item** (card data), **id** (card index), and **handleClick** (function to handle card clicks).

- Cards Component (**Cards.js**)

The **Cards** component manages the game logic, including card shuffling, state tracking, and pair matching. It displays the user's name during the game and shows the final score upon completion.

- NameInput Component (**NameInput.js**)

The **NameInput** component captures the user's name through a form input. After submission, it redirects the user to the game (**Cards.js**) with their name stored in the application state.

Routes

Routing is configured in the **App.js** file using **react-router-dom**. The application has routes for the name input page, the game page, and the congratulatory page.

Pages

Congratulation Page (**Congratulation.js**)

The **Congratulation** page is displayed when the user successfully completes the game. It presents the final score, and the user's name.

Usage

Enter your name on the name input page.

Click "join" to proceed to the card-matching game.

Match all card pairs by clicking on them.

Upon completing the game, view your final score on the congratulatory page.

1. **Clone or Download the Project:**

   - Clone the project from its repository using a version control tool like Git:

   Copy code

   ```
   git clone <repository-url>
   ```

   - Alternatively, download the project as a ZIP file and extract it.

2. **Install Node.js:**

   - Ensure that Node.js is installed on the PC. You can download it from https://nodejs.org/.

3. **Install Dependencies:**

   - Open a terminal or command prompt.

   - Navigate to the project's root directory:

   Copy code

   ```
   cd my-react-matching-game
   ```

- Run the following command to install project dependencies:

Copy code

```
npm install
```

4. **Run the Development Server:**

    - After installing dependencies, run the following command to start the development server:

Copy code

```
npm start
```

    - This command will launch the development server, and the React app will be accessible at **http://localhost:3000** in the default web browser.

5. **Access the App:**

    - Open a web browser and go to **http://localhost:3000**.

    - The React Matching Game should now be running, and you can interact with it.

6. **Enter Name and Play:**

    - Follow the on-screen instructions to enter your name and start playing the matching game.

7. **Explore the App:**

    - Play the game, explore different features, and enjoy the experience.

8. **View the Congratulation Page:**

    - When you complete the game, you will be redirected to the congratulation page.

9. **Stop the Development Server:**

    - To stop the development server, go back to the terminal where it's running and press **Ctrl + C**.

Functionality:

- Shuffles and displays a grid of cards with hidden images.
- Tracks user clicks and reveals card images.
- Checks for matching pairs and updates card states.
- Tracks and displays the user's score.
- Redirects to the congratulation page when the game is completed.

Conclusion

The React Matching Game is an interactive web application that combines user input, game logic, and routing. Users start by entering their names in the NameInput component, then proceed to play a matching game in the Cards component. After completing the game, users receive a personalized congratulatory message in the Congratulation component. The application is built with scalability in mind, allowing for easy customization and extension. With clear documentation and straightforward deployment, the Clash Of Clans Tilse Matching Game offers an engaging and accessible experience.