**Android project Repot - MatchPets**

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**Project Overview:**

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**MatchPets** is an innovative social application designed to help pet owners find the perfect match for their pets. This platform allows users to create detailed profiles for their pets, including essential information such as breed, color, height, and type. By leveraging these profiles, users can connect with other pet owners to set up meetings and playdates for their pets. The main objective of MatchPets is to facilitate interactions among pets and their owners, ensuring that every pet has the opportunity to socialize and find a companion.

**Key Features**

1. **User Authentication**
   * **Login**: Users can securely log in using their email ID and password. Upon successful login, users can access their profiles and utilize the various features offered by the application.
   * **Register**: New users can create an account by providing their email, name, password, and details about their pets. This information is used to set up their pet's profile on the platform.

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1. **Profile Management**
   * **Profile Creation and Update**: Users can create and update their pet's profile, including uploading photos and adding details about their pet's breed, color, height, and other characteristics. This information is visible to other users, helping them make informed decisions when selecting a potential match.
   * **Profile Review**: Users can browse through other pet profiles, viewing essential details that will help them decide whether to like or dislike a particular profile.

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1. **Matching System**
   * **Swipe Functionality**:

* **Right Swipe (Interested)**: Users can swipe right on a profile to indicate that they are interested in the pet. This action adds the profile to the list of potential matches.
* **Left Swipe (Not Interested)**: Swiping left on a profile indicates that the user is not interested in the pet. The profile will no longer appear in the user's search results, streamlining the selection process and ensuring only relevant matches are considered.
  + **Potential Matches**: The app uses the provided details and location to suggest potential matches that are geographically close and meet the user’s preferences.

A dog jumping in the air

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**A close-up of a phone

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1. **Communication**
   * **Chat Functionality**: Once a mutual match is established (i.e., both users have liked each other's profiles), they can start a conversation through the app. This feature enables pet owners to communicate, plan meetups, and ensure their pets get along before meeting in person.

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1. **Error Handling**
   * **Login Error Alerts**: The app provides real-time feedback if a user enters an incorrect username or password, helping them to correct their credentials and successfully log in.
   * **Logout**: Users have the option to securely log out of their accounts, ensuring their privacy and data security.

A screenshot of a dog

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**Challenges Addressed**

* **Material UI Implementation**: The app's user interface is designed using Material UI, ensuring a consistent and user-friendly experience across all devices.
* **Real-Time Chat**: Implementing real-time chat functionality was critical for enabling instant communication between matched users.
* **Database Authentication**: Secure and efficient database authentication was a priority to protect user data and ensure reliable access control.

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**Conclusion**

MatchPets is a comprehensive solution for pet owners looking to find the ideal companion for their pets. The app's user-centric features, such as profile creation, matching, and communication, combined with robust authentication and security measures, make it a unique platform in the pet care industry. Through MatchPets, users can ensure their pets have the opportunity to socialize, leading to happier and more fulfilled lives for both pets and their owners.