SRS DOCUMENT (DASS PROJECT)

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A brief Introduction to the Project

The purpose of this document is to describe the software requirements for a Canine Tracker App that tracks the location of dogs in a campus and alerts users about the presence of dogs in their vicinity. The app will be used by all the residents of the Campus to keep track of the stray dogs and ensure their safety.

Scope

The scope of this document includes the functionality, performance, and interface requirements of the Campus Canine Tracker.

Overview

The Campus Canine Tracker will use GPS-enabled collar devices to track the location and movement of dogs on a campus. The system will provide real-time information about the location and activity of each dog and will Alert the Users about the Dogs in their vicinity. The system will also include an interface in which the Users can Vote for the Dog regarding its Behaviour(whether it is Docile, Friendly or Aggressive) and its name and current records.

General Requirements:

The app must be able to track the real-time location of dogs using GPS technology.
The app must allow users to register and create profiles for their dogs, including information such as its location and its general Nature towards People.
The app must allow users to view the location of dogs on a map and track their movements in real-time.
The app must have an alert system that notifies users when they are near a registered dog.
The app must have a user-friendly interface and be easy to use.

Technical Requirements:

The app must be developed for both iOS and Android platforms.
The app must use a reliable and secure database to store information about dogs and

their owners(in our case, it is MongoDB).
The app must alert users about the presence of dogs in their vicinity.
The app must have a robust GPS system that accurately tracks the location of dogs in real-time.

Functional Requirements:

Users must be able to view the location of the dogs on a map in real-time.
Users must be able to track the movements of the dogs over time.
Users must be notified when they are near a registered dog.
In the Case when the Dog is not Registered on the Database, the User must have the option to report about the presence of a New Dog.

User Interface Requirements:

The app must have a map view that clearly displays the location of dogs.
The app must have a dashboard that displays information about registered dogs, including their profiles.
The app must have an alert system that notifies users about the presence of dogs in their vicinity.
The app must be visually appealing and have an attractive design.

These are the basic functionalities of various pages in the app :

1. **Login / Register page** ➖ This page is for authentication purposes and all the users registered with the app can vote for the Dogs and track the real time location of all the dogs in the campus and the target audience for this app is all the IIITH residents
2. **Map Page of IIITH campus** ➖ On this page the live location of the user and all the dogs in the campus are shown to the users . This is in conformation to all the functional requirements of the apps as stated above
3. **Dog Profile page** ➖ On this page the basic characteristics of each dog are displayed ,the user has option to vote for different dogs on this page and each Dog registered with this app has a profile page .

4. **Alert page** ➖ On this page user is notified of the presence of all the dogs in his/her vicinity . This give an incentive to user to escape and take a different path in case the dog in vicinity of the user is an aggressive one .
5. **Navigation Bar** ➖ There is also navigation bar at the top and the user can navigate to different pages through all the links present in the navigation bar.

Conclusion

The Canine Tracker App provides Campus Residents to have a convenient and reliable way to track the location of the dogs and ensure the safety of their own and all the Living Beings, in general, inside the Campus. With real-time GPS tracking, an alert system, and a user-friendly interface, this app will help users keep themselves safe from the Dogs.