# Pet Survivor: A Helping Hand for the Street Dogs

**Mr. Prasad. R. Sonawane[1], Nandini B. Mahajan[2], Ayush D. Shankhpal[3],**
**Aniket K. Somwanshi[4], Soham C. Shelke[5]**

Lecturer, Department of Computer Engineering, Mahavir Polytechnic, Nashik, Maharashtra, India[1]
Students, Department of Computer Engineering, Mahavir Polytechnic, Nashik, Maharashtra, India[2-5].

**Abstract:** *The Dog Soldier project is a mobile and web-based social platform designed to connect animal lovers, volunteers, and rescue organizations to help injured or abandoned street dogs. The application allows users to upload photos, descriptions, and real-time locations of dogs in need. Other users or nearby rescuers can view these posts on an interactive map and respond immediately to provide help. This system aims to build a compassionate community that ensures faster rescue and medical attention for stray animals. By leveraging technology and social collaboration, Dog Soldier promotes animal welfare and strengthens the human–animal bond. The backend is powered by PHP and MySQL, while the frontend uses HTML5, CSS3, JavaScript, and Bootstrap.*

**Keywords:** Dog Rescue, Street Animals, Social Media Application, Animal Welfare, GPS Tracking, Volunteer Network, Real-Time Help, PHP, MySQL, OpenStreetMap, Community Platform, Web Application, Location-Based Services, Animal NGO, Rescue Coordination

## I. INTRODUCTION

Stray and injured dogs often suffer due to a lack of timely attention and communication among animal lovers and rescuers. In urban and semi-urban environments, thousands of street dogs are left without medical care or shelter simply because there is no organized, accessible medium to connect those willing to help with those who know where help is needed.

The "Dog Soldier" application is designed to address this critical gap by creating a social platform where users can report and share information about dogs requiring assistance. By uploading a photo, description, and GPS location of the dog, users make it easier for volunteers, NGOs, or veterinarians to find and assist the animal promptly. The system integrates real-time location mapping, user interaction, and community-driven rescue coordination.

Drawing inspiration from successful community-driven platforms, Dog Soldier leverages familiar social media interaction patterns — posting, viewing feeds, and map-based discovery — to create an intuitive rescue ecosystem. Through this initiative, Dog Soldier not only facilitates faster aid but also fosters empathy and collective responsibility toward the welfare of street dogs.

### Objectives

• Develop a User-Friendly Platform: Build a web application that allows users to easily report injured or stray dogs by uploading photos and live locations.

• Enable Real-Time Tracking: Integrate GPS-based map services to display all reported cases for immediate volunteer response.

• Build a Digital Community: Connect volunteers, animal lovers, and NGOs for coordinated, community-driven dog rescue efforts.

• Maintain a Centralized Database: Store all rescue activities and dog reports systematically for future reference and analysis.

• Promote Awareness: Encourage social responsibility and public engagement toward the welfare of stray and injured dogs.

## Analysis and Feasibility

The "Dog Soldier" project presents a feasible and impactful solution to an existing gap in animal welfare management. A thorough feasibility analysis across technical, operational, and resource dimensions confirms the project's viability.

The application is developed using PHP 7.4+ and MySQL, both mature and widely supported technologies. The frontend uses HTML5, CSS3, JavaScript, and Bootstrap for a responsive cross-browser experience. Location services are implemented via the Geolocation API and OpenStreetMap or Google Maps API. The stack is lightweight, well-documented, and technically feasible for a small team.

## Operational Feasibility

The platform is designed to be intuitive for both tech-savvy and general users. Users can register, report dog cases, and interact with the map with minimal training. The admin panel provides oversight for managing posts and rescue statuses, ensuring high operational feasibility.

## Resource Feasibility

The project requires standard web development skills and freely available open-source tools. Funding requirements are minimal. Partnerships with local NGOs can further support community outreach and testing phases, ensuring resource feasibility.
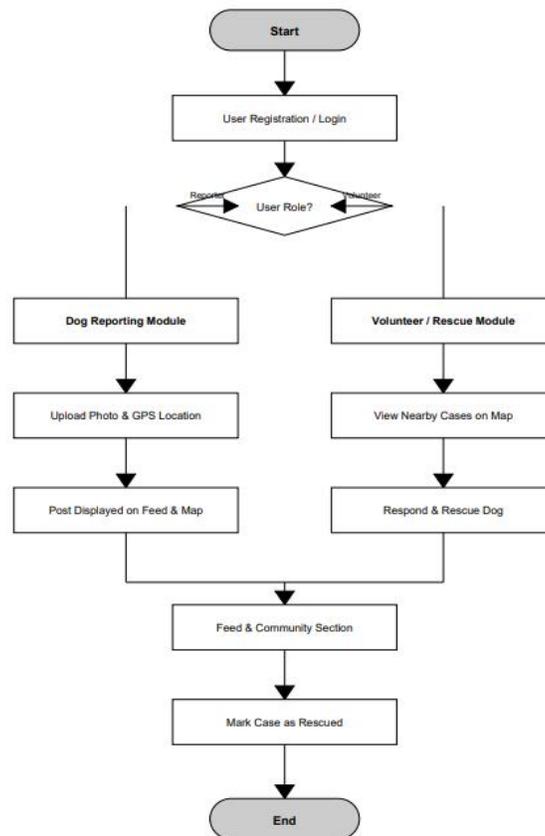
## FLOWCHART:



FIG. 1:SYSTEM FLOWCHART OF DOG SOLDIER APPLICATION

## II. PROBLEM STATEMENT

In most cities, countless stray and injured dogs suffer on the streets without timely care or rescue. While many people are willing to help, there is no organized or accessible platform that effectively connects them to dogs in need. Often, by the time information reaches animal lovers or rescue organizations, the dog's condition worsens significantly due to delays in communication.

This gap between awareness and action results in preventable suffering and even death of many stray animals. The Dog Soldier project addresses this by providing a dedicated web platform where users can instantly share details, images, and live locations of injured or needy dogs, creating a bridge between compassion and timely rescue.
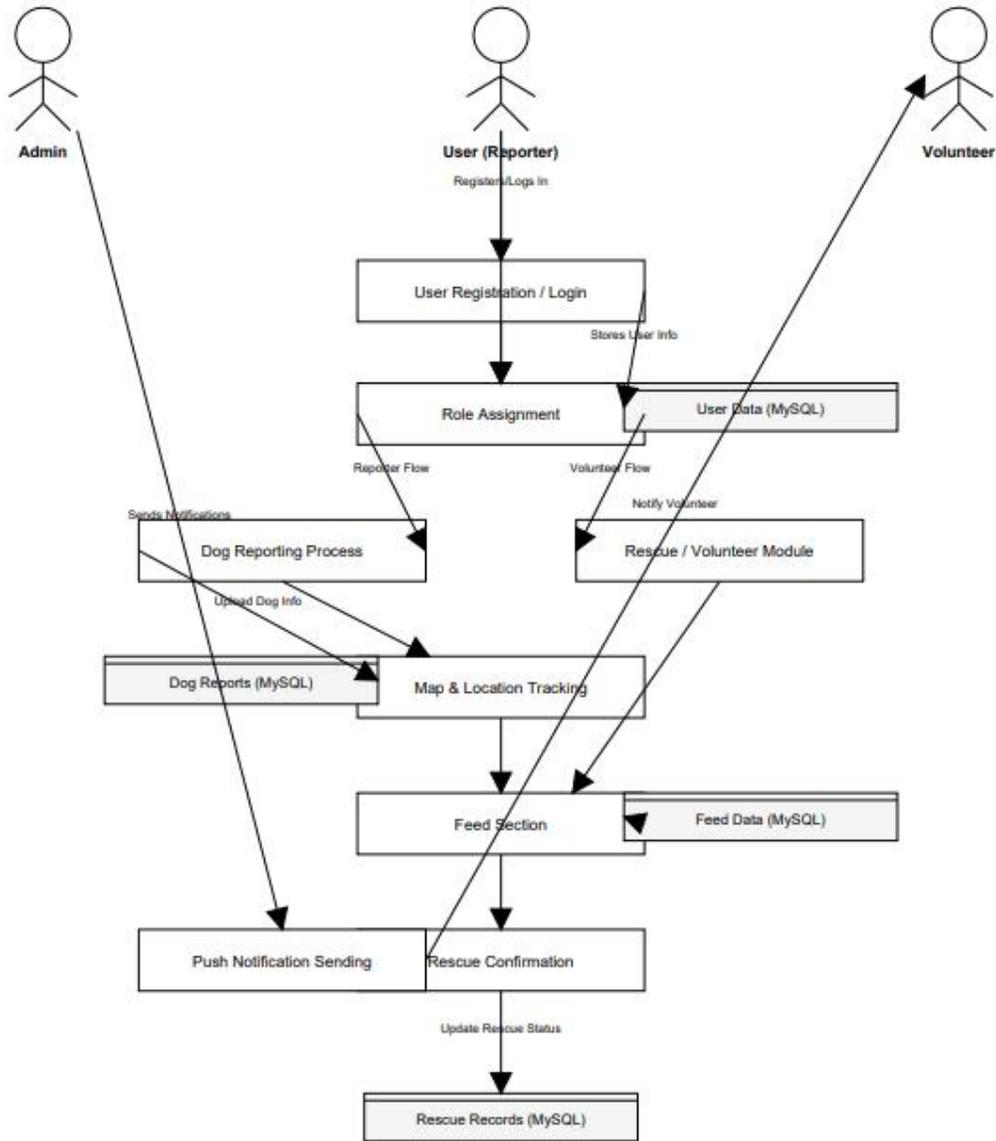


2: Data Flow Diagram (DFD) of Dog Soldier Application

## III. SCOPE OF THE PROJECT

The Dog Soldier project focuses on building a web-based platform connecting individuals, volunteers, and animal welfare organizations to help injured and stray dogs efficiently. The core scope includes:

• A user registration and login system with secure password encryption.

• A dog reporting module where users upload images, descriptions, and GPS coordinates.

• An interactive map (OpenStreetMap/Google Maps) displaying all reported cases geographicallyFigure Captions

• A volunteer/rescue module allowing users to mark cases as rescued and coordinate responses.

• A centralized MySQL database for storing users, posts, and rescue records.

Future expansions may include veterinary partnerships, adoption drives, push notifications, and a dedicated mobile application to widen the platform's reach and impact.

## IV. SYSTEM DESIGN

**System Architecture**

The Dog Soldier system follows a classic three-tier web architecture: a presentation layer (HTML5/CSS3/Bootstrap/JS), a logic layer (PHP), and a data layer (MySQL). The client-side browser interacts with the PHP backend via HTTP requests. Geolocation data is captured through the browser's Geolocation API and rendered via map APIs.

**Modules of the System**

• 1. User Registration and Login Module: Allows new users to register with name, email, and password. Passwords are stored with encryption. Registered users log in securely to report cases or volunteer.

• 2. Dog Reporting Module: Users upload images, descriptions, and location details of injured or stray dogs. Data is stored in MySQL and displayed on the community feed and map.

• 3. Map and Location Tracking Module: Integrates OpenStreetMap or Google Maps API to display all reported dogs geographically. Volunteers identify nearby cases and navigate to them efficiently.

• 4. Volunteer / Rescue Module: Volunteers view reported cases, mark them as 'rescued,' and communicate with the original reporter. Reduces duplication of rescue efforts.

• 5. Admin Panel: Administrators manage user accounts, moderate posts, monitor rescue status, and generate activity reports.

**System Requirements**

• Operating System: Windows 10/11, Linux, or macOS

• Frontend Technologies: HTML5, CSS3, JavaScript, Bootstrap

• Backend Technology: PHP 7.4 or higher

• Database: MySQL 5.x or higher

• Web Server: Apache (via XAMPP / WAMP / LAMP)

• Browser Support: Google Chrome, Mozilla Firefox, Microsoft Edge, Opera

• Development Tools: Visual Studio Code, XAMPP Control Panel, phpMyAdmin

## V. ADVANTAGES OF THE PROPOSED APPLICATION

• Real-Time Location Mapping: GPS-based interactive maps allow rescuers to pinpoint the exact location of reported dogs, dramatically reducing response time.

• Community-Driven Rescue: A social feed and volunteer module enable collective action, distributing the responsibility of rescue across the community.

• Image-Based Reporting: Photo uploads provide rescuers with visual confirmation of the dog's condition, enabling better preparedness before arrival.

• Rescue Status Tracking: Cases can be marked as rescued, preventing multiple volunteers from responding to the same incident and optimizing resources.

• NGO and Organization Integration: Animal welfare NGOs can use the platform as an operational tool, improving coordination with ground-level volunteers.

• Data-Driven Insights: The centralized database enables analysis of high-frequency rescue zones, seasonal trends, and response time metrics for continuous improvement.

## VI. APPLICATIONS

• Enable instant reporting of injured or stray dogs by any community member with a smartphone or computer.

• Allow real-time volunteer dispatch through map-based case discovery and location sharing.

• Support NGOs and animal shelters in tracking open cases and coordinating field operations.

• Facilitate post-rescue follow-up by maintaining a history of rescue activities in the database.

• Serve as an emergency response tool during natural disasters when stray animal displacement increases.

• Promote adoption drives by maintaining profiles of rescued dogs that have been rehabilitated.

## VII. FUTURE SCOPE OF THE PROJECT

• Mobile Application: Developing dedicated Android and iOS apps using Flutter will expand accessibility and enable push notifications for nearby rescue alerts.

• Veterinary Partnerships: Integrating a network of registered veterinarians who can receive emergency case alerts and provide remote triage guidance.

• AI-Based Injury Detection: Implementing image recognition models to automatically classify the severity of a dog's condition from uploaded photos.

• Adoption Module: Adding a post-rescue adoption portal where rehabilitated dogs can be listed for adoption. • Government and NGO API Integration: Connecting with municipal animal control departments and national NGO databases for broader impact and resource sharing.

• Predictive Analytics: Using historical rescue data to predict high-risk zones and peak times, enabling proactive volunteer deployment

## VIII. CONCLUSION

The "Dog Soldier" project represents a compassionate and technically sound solution to a real and pressing social problem. By combining web technologies with community engagement, the platform enables anyone with an internet connection to become a part of the rescue chain for street dogs. The integration of real-time GPS mapping, image-based reporting, and a volunteer coordination module creates a comprehensive ecosystem for animal welfare.

The use of an accessible technology stack (PHP, MySQL, Bootstrap) ensures that the system can be deployed and maintained with minimal infrastructure. Dog Soldier transforms passive awareness into active rescue action — creating a measurable, positive impact on the lives of stray animals. Ultimately, Dog Soldier is more than a web application — it is a movement that harnesses technology to build empathy, community, and a safer world for street dogs,

## REFERENCES

[1] Google Maps Platform Documentation – https://developers.google.com/maps

[2] PHP Official Documentation – https://www.php.net/docs.php

[3] MySQL Official Documentation – https://dev.mysql.com/doc/

[4] W3Schools Tutorials (HTML, CSS, JavaScript, PHP) – https://www.w3schools.com

[5] Bootstrap Framework Documentation – https://getbootstrap.com/docs

[6] OpenStreetMap Developer Resources – https://www.openstreetmap.org

[7] Geolocation API Documentation – https://developer.mozilla.org/en-US/docs/Web/API/Geolocation_API

[8] S. Kumar and R. Sharma, "A Web-Based Platform for Community-Driven Animal Rescue," International Journal of Computer Applications, vol. 180, no. 12, pp. 34–39, 2018.

[9] A. Patel, "Real-Time Location Services in Web Applications Using OpenStreetMap," Journal of Open Source Software, vol. 4, no. 8, 2019.

[10] World Health Organization (WHO), "Rabies and Dog Population Management," WHO Technical Report, Geneva, 2020.

[11] Animal Welfare Board of India (AWBI), "Guidelines for the Management of Stray Dogs," Ministry of Environment, Forest and Climate Change, 2015.

[12] M. Ghazal, S. Ali, F. Haneefa and A. Sweleh, "Towards smart wearable real-time tracking," 2016 International Conference on Industrial Informatics and Computer Systems (CIICS), 201