

## **THE PET ADOPTION HUB USING DJANGO**

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### **ABSTRACT**

The number of homeless and abandoned pets is increasing every day. At the same time, many people are looking for a safe and reliable platform to adopt pets. In India, most of the current pet adoption websites are either unorganized or lack important features. To solve this real-world issue, we have developed The Pet Adoption Hub, a web-based platform that connects adopters with verified pet sellers in a structured and secure manner. This system allows users to register, browse available pets, and send adoption requests. Each pet listing includes clear details such as breed, age, and gender. The platform supports a multi-vendor system where verified sellers can log in through a separate seller panel to manage their pet listings. An admin controls seller verification and listing approvals, ensuring safety and quality throughout the process. To enhance user experience, features like wishlist, cart and real-time adoption status tracking are included. The system has a multi-user structure with role-based access and was developed with Django Framework. The main aim of this platform is to promote ethical pet adoption and create a safe digital space for pets to find loving homes.

### **1.INTRODUCTION**

Handling pet adoption and sales through traditional methods has become increasingly difficult, especially with the growing awareness and demand for ethical pet adoption. Users frequently experience confusion, delays and miscommunication in the adoption process due to the need to visit multiple shelters, maintain paper-based records, and the absence of a centralized system. In today's world, many people are willing to adopt pets, but they struggle to find a proper platform that is safe, reliable, and easy of use.

To overcome these limitations and ensure a reliable and simple experience for administrators, sellers, and adopters, The Pet Adoption Hub was developed as a full online pet adoption platform. The pet adoption hub is developed by using Django Framework. It provides a well-organized platform that allows pet users to browse different pet categories, adopt or buy pets, and securely communicate with only verified sellers. The system supports multi-vendor functionality, enabling different sellers to register, manage their own pet listings, and handle request approve or reject from adopters through a seller panel. For Users, Sellers and administrators, the platform guarantees safe role-based access.

Users can browse pets by category, such as dogs or cats, and register and log in. Make adoption requests and put your favourites on their wishlist. On the other hand, sellers can add

new pet listings, manage, respond to requests and update pet details through their dashboard. In addition to managing users and sellers and keeping an open record of all activities, administrators have complete control over the system. E-commerce websites served as the inspiration for this pet adoption hub. All things considered, this platform is more than simply a tool it is a mission-driven solution designed to lessen pet homelessness, encourage moral behaviour, and provide a dependable, scalable online marketplace where animals can find loving, safe homes[1-29].

## **2. PROBLEM STATEMENT**

In recent years, pet adoption has been more popular in India, but the lack of a centralized and well-structured platform still creates a major challenge. Currently, adoption efforts are scattered across various social media pages, NGO websites, and online classifieds. This disorganized setup makes it difficult for adopters to find pets in a systematic way and for sellers to manage their listings efficiently. Moreover, many of these platforms do not verify the identity of sellers, leading to issues like fake or misleading listings and unethical pet trade. This lack of trust and transparency discourages genuine users from adopting pets.

Traditional pet adoption methods involve visiting multiple shelters, handling paperwork, and waiting for responses all without any real-time, which leads to unnecessary delays. Most existing platforms do not offer status tracking features, leaving users confused about the progress of their adoption requests. Additionally, there is no support for a multi-vendor system where different verified sellers can manage their pet listings independently. Unlike modern e-commerce platforms, pet adoption websites often lack user-friendly features such as wishlists, carts, and advanced search filters, which could improve user experience and decision-making.

## **3.LITERATURE SURVEY**

Internet platform, Assumption University's web-based animal adoption system sought to expedite pet adoptions. In addition to administrators managing pet listings, approving adoption applications, and corresponding with adopters via email, the system was designed to enable users to register, see available pets, and submit adoption requests online. Through the provision of a database for record management, these systems enhanced accessibility to pet adoption services. However, the system does not provide real-time pet status updates and does not automate adoption approvals, necessitating manual inspection by administrators.[1] By effectively arranging shelter pet postings, this centralised database system can facilitate pet adoption. Additionally, it offers a web-based adoption platform that harmonises adoption practices among several shelters. It guarantees adoption records are transparent and offers real-time information on pet availability. Independent pet owners are unable to list their animals on the system because it does not permit user-controlled pet listings.[2] increasing trend of pet adoption and the responsibilities involved in ensuring pet well-being. It highlighted the psychological and social benefits of pet ownership. while addressing challenges such as overpopulation in shelters and ethical a behavioural trait of adopted pets,

and strategies for responsible pet ownership. However, the study primarily analysed adoption patterns rather than developing a digital adoption system.[3]

Pet Connect is a web-based pet adoption platform aimed at streamlining the adoption process by providing a user-friendly interface. The platform increases the accessibility and effectiveness of pet adoption by connecting adopters, animal shelters, and pet owners. It features a screening procedure for adopters and provides real-time information on pet availability. Individual pet owners are unable to post listings because it does not support numerous suppliers.[4] Adopter agreements and other legal compliance steps are also left out. Pet Hub is an internet portal that links adopters with shelters in an effort to streamline the adoption process. Through admin, shelter, and user modules, this adoption system makes it easier for adopters, shelters, and pet owners to communicate. In addition to additional services like grooming and medical care, it provides computerized appointment booking. However, the platform restricts independent pet listings by not supporting multi-vendor capability.[5]

#### **4. EXISTING SYSTEM**

The existing system for pet adoption in India handled through informal and scattered platforms such as social media pages, individual NGO websites, or basic classified portals. There is no unified system that enables users to search for pets, connect with verified sellers, and track their adoption journey in a smooth and secure manner. Many adoption systems basically handled through manual process, which can lead to miscommunication, delays or even scams. Users are often left without updates on their requests, and features like wishlists, carts, or adoption history are not available at all. Adopters have to watch multiple websites in order to buy one pet, definitely it will be difficult to the adopters. Moreover, most platforms do not support multi-vendor functionality, which is essential for scalability. There is lack of role-based systems that offer separate access and control for users, sellers, and administrators. Overall, the existing system lacks automation and fails to meet the evolving needs of users, sellers, and administrators. Most platforms are scattered and unreliable, which makes it hard for users to adopt smoothly.

#### **5. PROPOSED SYSTEM**

The proposed system, The Pet Adoption Hub, aims to address the limitations of traditional pet adoption methods by offering a well-structured, reliable, and user-friendly web-based platform. This platform is built using Django (Python Framework) with a clean frontend interface by HTML, CSS and JavaScript, and utilizes SQLite for backend data management. The system supports multi-role functionality with secure, role-based dashboards for Admins, Sellers, and Adopters (Users). The admin panel enables administrators to verify sellers, approve listings, and monitor activities to maintain platform integrity. Sellers can add detailed pet listings, including breed, age, gender, weight and manage adoption requests through their dedicated dashboards. Users can browse pet listings by category, add pets to wishlist or cart, and track the status of their adoption requests in real-time. The system promotes both ethical and flexible adoption practices. Inspired by e-

commerce platforms, the Pet Adoption Hub integrates modern UI components such as filters, and visual badges for request updates. Overall, the proposed system simplifies the adoption process, enhances transparency, and provides a safe and user-friendly environment for connecting pets with loving families.

## **6. WORKING PROCESS**

### **1. User (Adopter)**

#### **User Registration & login**

The user signs up using an email and password. After successful registration, they can securely log in to access all features.

- **Pet Browsing by Category**
  - Users can browse pets based on categories such as breed, age, gender.
  - Filters and search bar help in quickly finding suitable pets.
- **Wishlist Feature**
  - If a user likes a pet but isn't ready to adopt immediately, they can add it to their wishlist for later viewing.
- **Sending Adoption Requests**
  - The user can send an adoption request to the seller.
  - They can also cancel the request before its approved or rejected.
- **Tracking Request Status**
  - Users can view the status of their adoption requests on their dashboard(Approved,Rejected, or Pending).
  - Once approved, they get further instructions from the seller.

### **2. Seller (Pet Owner)**

#### **Seller Registration & Login**

A seller registers with all necessary details. The account remains inactive until verified and approved by the admin

After approval, the seller can log in and manage all their pet listings.

- **Managing Pet Listings**
  - Sellers can add new pets for sale by entering details like name, age, breed, category, weight, description, and their type.
  - Sellers can be edited, updated, or removed at any time in their Listings.
- **Handling Requests from Users**
  - When a user sends an adoption request, the seller gets notified
  - Seller can approve or reject requests from their dashboard. Approved requests change the pet's status "Adopted" if completed.

### **3. Admin Panel**

#### **Admin Login & Dashboard**

Admin logging into the platform using secure credentials. Once authenticated, the admin is redirected to a dedicated admin dashboard. This dashboard serves as the control center, offering access to all critical sections of the platform such as user management, seller verification, pet listing reviews, and reports.

- **User & Seller Management**
  - The admin has full visibility over all registered users and sellers. Every new seller who registers on the system needs admin approval before gaining access to their dashboard.
  - Admin has full control to delete, block, or suspend any account if suspicious or inappropriate activity is found
- **Analytics & Reports**
  - Admin can track the total users, sellers, pets listed, and number of adoptions.
  - Helps in making platform improvements and ensuring smooth operations.
- **Platform Content Management**
  - Admin can update pages like Terms & Conditions, About Us, Help & Support. Ensures the platform remains compliant, informative, and user-friendly.

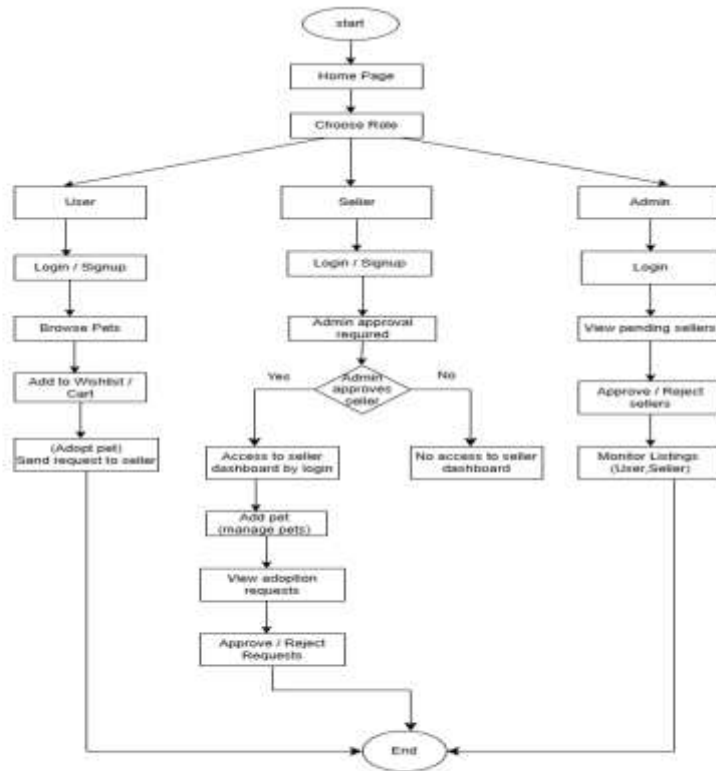


Fig.1. Process Flow

## 7. ADVANTAGES

### 1. Multi-Vendor Functionality

- The system allows multiple sellers to maintain their own pet listings through dedicated dashboards. This makes the platform scalable and ensures a wider variety of pets for adopters to choose from.

### 2. Verified Sellers Only

- Seller accounts go through a verification process, which helps prevent fake listings and ensures trustworthy adoption.

### 3. Easy and Friendly User Experience

- The platform has a responsive and clean interface, making it easier for users to browse pets by filters like breed, age, and type.

### 4. Role-Based Access Management

- It supports different user roles Admin, Seller, and User have different permissions and dashboards, ensuring security and smooth control of data and functionality.

## 5. Wishlist and Cart Features

- Like e-commerce platforms, users can add pets to a wishlist or cart, allowing them to compare and plan adoptions more conveniently.

## 6. Real-Time Request Tracking

- Users can check the status of their adoption requests in real-time, minimizing delays and confusion in communication.

## 7. Paperless and Faster Process

- By managing everything online from requests to approvals the platform eliminates the need for physical paperwork, speeding up the entire adoption process.

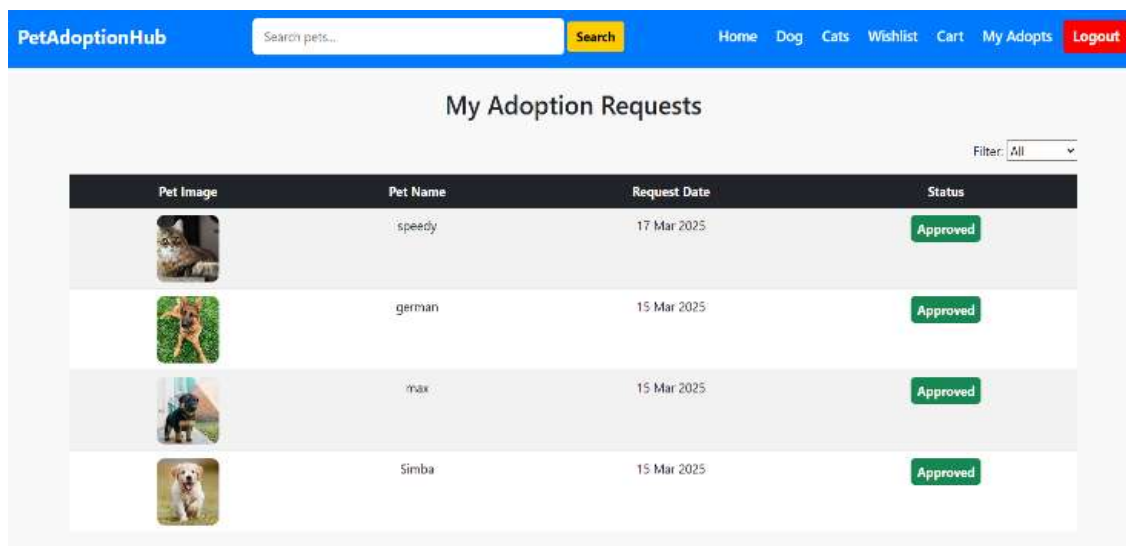


Fig.2. User Dashboard

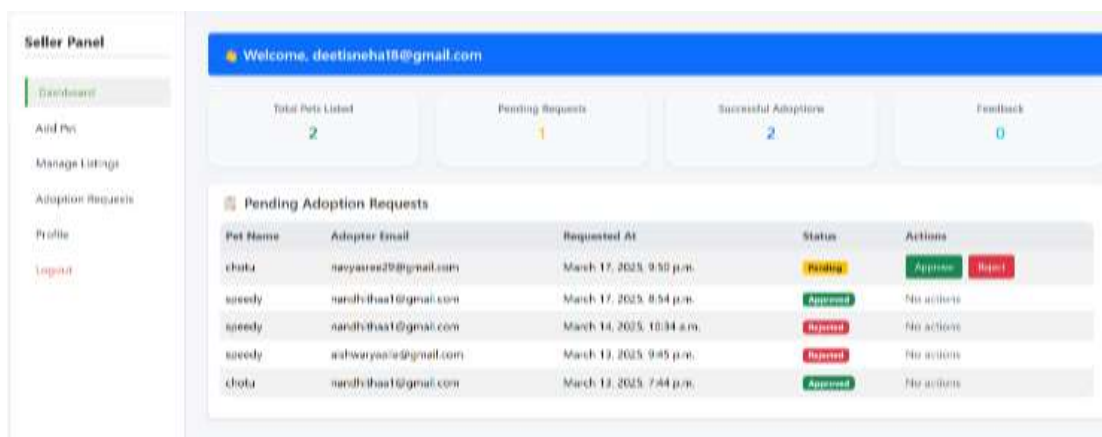


Fig.3.Seller dashboard

## **8.FUTURE WORK**

The Future development of The Pet Adoption Hub aims to further enhance user experience and system functionality. One of the key improvements would be the development of a dedicated mobile application, making it easier for users to access the platform anytime and anywhere. Integration secure online payment gateways would enable smooth and reliable financial transactions, supporting pet adoptions or donations. Adding GPS/location filtering so users can find pets nearby, improving convenience and faster adoptions.

Another important feature to be added is a dedicated Lost & Found module. This section would allow users to report lost pets or inform about found animals in their area. It could include options for uploading pet photos, tagging locations, and providing contact information helping reunite pets with their owners more efficiently.

## **9.CONCLUSION**

One step toward developing a dependable and organized platform for pet adoption is The Pet Adoption Hub. Our platform offers a consolidated, safe, and user-friendly experience for all kinds of users, sellers, and administrators by filling in the holes in existing systems, such as dispersed listings, no seller authentication, and restricted user engagement capabilities. The system modernizes the adoption process and brings the ease of e-commerce platforms closer with features like role-based access, multi-vendor compatibility, and real-time status tracking, wishlists, and carts. In addition to making it simpler for adopters to locate the ideal pet, it guarantees that merchants can effectively and securely handle their listings, and administrators can monitor and oversee the procedure while upholding moral principles. A scalable backend structure, appropriate access control, and secure user authentication are all guaranteed by using the Django framework. All things considered, the Pet Adoption Hub blends compassion and technology to make the adoption process more successful, dependable, safer, and faster for all parties.

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