**Project Synopsis**

**on**

**Pet Station: A Collaborative Environment for Adoption, E-Consulting and E-Guiding**

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**Submitted by**

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**Problem Statement**

Stray animal populations have increased drastically over time due to the increase in the human population and poor waste management, creating more exposed garbage available as food for strays. Large populations of stray dogs and cats are public health concerns.

People losing their jobs, having a baby, relocating to different place, encountering difficulties with their health are also common reasons for pets to become stray especially for dogs and cats.

Our product helps reduce this problem by providing a means for people looking forward to adopting pets and putting them in touch with animal shelters and pet owners who can no longer care for their pets.

**Project Description**

The application allows for online pet adoption, containing separate user and animal databases, along with an adoption schema. The console allows the user to be either an **owner** (putting up their pet for adoption) or an **adopter** (looking to adopt a pet). This user maybe a sole person, or a registered NGO. The user will be required to create a profile (with two-factor authentication) to list/adopt on the website. The user will then be able to list their pet to the database, specifying all necessary information, including (but not limited to) it’s age, breed, expenditure, temperament, medical needs, feeding habits. This database, will be available as a list of options to an adopter.

The application runs a recommendation system to help users choose the most viable option depending on the housing needs, grooming/ medical requirements, temperament and overall monthly expenditure of the pets. The recommendation system uses a collaborative filtering algorithm that matches adopter preferences to the existing database of listed pets. All pet exchanges and listings will be authenticated by our team and, contacts will be shared only if there is a match.

The blog section of the website contains information about various domesticated animal species and breeds, experiences of pet owners, grooming/feeding guides and tips. Emergency local helplines, veterinary information and contacts will also be made accessible. This section of the website (the blog) is available for both registered and guest users.

**Work Completed**

1. **Requirement Ananlysis** 
   1. Identified list of features, scope and market viability
2. **Planning and Designing** 
   1. Entity Relationship Models
   2. Use Cases
   3. Website Schema
   4. Wireframing
3. **Implemented Database**

**Tech Stack**

1. **MERN Stack** (MongoDB, Express JS, React Js, Node JS)
2. **Machine Learning** (Collaborative Filtering Algorithm)

**Implementation This Semester**

1. **UX/UI Design**
2. **FrontEnd Development**
3. **BackEnd Development**
   1. User registration
   2. Email Authorization
   3. Pet Listing (Token Generation)
   4. Connect to Database
   5. End-to-end contact information
4. **Research Paper**