

**UNIVERSITY OF
WESTMINSTER** 卍



INFORMATICS
INSTITUTE OF
TECHNOLOGY

INFORMATICS INSTITUTE OF TECHNOLOGY

In collaboration with
The University of Westminster, UK

BEng (Hons) DEGREE PROGRAMME in
Software Engineering

6COSC012C – Final Year Project Report

of

“Pet Land – Pet Breeding Eligibility/Prediction System”

Sampath Munaweera (2014130)

Supervised by

Dr. Randil Pushpananda

School of Computer Science & Engineering
University of Westminster

Date
06/02/2019

ABSTRACT

A pet is an animal that you keep in your home to give you company and pleasure. Throughout the past, pets like dogs were used as a form of protection but with the evolvement of humans they were later seen more as companions to humans. Dogs can be considered as the most popular category of pets as they are owned by many people. Thus, it is highly important to take care of them. Pet breeding is now considered vital since people only care about the physical looks of puppies. There are numerous diseases that every dog may prone to be a victim daily due to various reasons such as breeding, delaying of vaccinations and other genetic problems. Specially because of breeding, parent pets face many diseases and it has been evident that improper breeding can result in death of the puppies to be born. Therefore, there are many other facts to be considered such as the Body Score Condition, their eligibility for breeding, health condition and etc in the breeding process. by such considerations, breeding diseases can be reduced. Therefore, PetLand is a system that predicts the eligibility of breeding of the pet as well as the system assists by finding health wise matching mating partners for pets via a rules engine. It uses existing pet data via expert system technology to predict the breeding eligibility of pets. By using a Rules Engine, the data gathered via a domain expert will be used to create a new rule base where once the pet data is inserted it will analyze and give an out turn whether the pet is eligible for breeding or not.

By using the Drools framework as the predominant technology consolidated with Rete Algorithm, PetLand will has the capability diminish up to 99% of the pet breeding issues and diseases caused. Also, this system also allows users to maintain health reports, find nearby veterinarians and other useful functions. This system is carried out to ensure that the existing breeding diseases does not get passed to future generations and fore mostly, to ensure that both parent pets and puppies to born are 99% healthy and safe.