SENG 410 – Senior Design Project 1

Requirements Document

SALEM

A Multi-Featured Smart Pet Feeder

Prepared by

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1. **What is Salem?**

Salem is a multi-featured smart pet feeder that basically determines the amount of food/water inside pet foods bowl in real-time and re-fills the bowl if necessary. This project will be helpful for the pet owners who want to feed their pets remotely. Additionally, for those who want to watch their pets in real-time, one of the targeted outcome is making a video stream through the webcam.

1. **Major Features**

* User defined weekly feeding schedule,
* Controlling levels of pet food and water inside the bowls and re-fill on need,
* Continuous live stream of animal,
* Controlling levels of pet food and water inside the storage and warn the user if below user specified level,
* Games and other features to keep the pet accompanied,
* Mobile and web interfaces for accessing to the system.

1. **Requirements**
   1. **Functional Requirements**

* User should be able to login to the web and mobile applications using credentials.
* User should be able to create new weekly feeding schedule.
* User should be able to edit existing weekly feeding schedule.
* User should be able to remove existing weekly feeding schedule.
* System should continuously live stream using a webcam.
* System should be accessible through both web browsers and mobile devices.
* System should automatically drop food and fill water in to the bowls according to the set schedule.
* User should be able to see the food and water levels inside the bowls through the web and mobile applications.
* User should be able to see the storage levels from the LCD screen on the machine.
  1. **Non-Functional Requirements**