SE 311 Term Project – Yiğit Can Dündar & Selin Önal

# Group Information

Yiğit Can Dündar - 20130601019

Selin Önal –

# Patterns Used & Thought Processes

1. Singleton Pattern: This pattern was selected with the notion of having a single database that could later be used by other classes/clients without having to create a new database instance.
2. Façade Pattern: This pattern was selected with the notion of providing the client an interface that could be used to handle Farm specific tasks such as: adding new cattle animals to cattle lists, controlling cattle feeder relations and also visitor relations, without having to manually keep track of every façade covered classes and relations.
3. Abstract Factory Pattern: This pattern was selected so that the feeding constraints of each cattle would be separated into their own food product and feeder categories. That is later used by the Façade client to complete the feeding process.
4. Adapter Pattern: This pattern was selected due to the database requiring only Zigbee signals. Since there is another signal transmitter that transmits Bluetooth signals, this pattern serves as an adapter from Bluetooth to Zigbee for the database to register Bluetooth signals.
5. Visitor Pattern: This pattern was selected since the Veterinary Physician and The Ministry of Food, Agriculture and Livestock need to visit the cattle animals to perform specific tasks through the Farm Façade.

# UML Diagrams

# Class Explanations

# Code

## Header

## Source