**DOCUMENT OF ASSIGNMENT 1**

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Course: DEP302x\_01-A\_VN Giới thiệu về Kỹ thuật Dữ liệu

TOPIC: Building a Data Warehouse for Pet finder project.

Here, I will design a dimensional data warehouse with centralized architecture. In a dimensional model, first thing I need to do that specify measurements and contexts which correspond to fact and dimension in data warehouse.

* Measurements (Facts): Age, Quantity, Fee
* Contexts (Dimensions):
  + Pet\_characteristic: Type, Breed1, Breed2, Gender, Color1, Color2, Color3, Maturity\_size, Fur\_length, Vaccinated, Dewormed, Sterilized, Health,
  + State
  + Rescuer

This data warehouse was installed a basic ETL which only allow append and inplace-update data. Inplace-update can ouccur in dimension tables and fact table.

* In Fact table I setting SCD to know what kind of version is new and what kind of version is old.
* In dimension tables, all of it cannot update. Because
  + In State\_DIM only has a surrogate key and a natural key(State) then each time you change State it equivalent to you add a new State.
  + Similarly to Rescuer\_DIM.
  + In Pet\_DIM, although has many attributes but all of it is a part of natural key then each time you change a part it equivalent that you add new natural key.