

We created views to organize and present data relevant to goats and their attributes. Each view has a specific function. The `animal_weights_view` selects the `animal_id`, `last_weight`, `last_weight_date`, and `sex` from the `Animal` table. It provides a simplified view of the weights of the goats. When a new goat entry is inserted and its weight is measured, this view can be queried to retrieve the last weight recorded for the newly inserted goat. The `animals_traits` view selects `animal_id`, `trait_code`, `alpha_value`, and `alpha_unit` from the `Session_animal_traits` table. It allows users to query specific traits associated with the goats. When inserting new goat entries and their corresponding traits, this view can be used to retrieve the traits recorded for the newly inserted goat. The `goat_lineage` view selects `animal_id`, `breed`, `sex`, `dam`, and `sire` from the `Animal` table, filtering based on a specified breed in this case. It can filter based on other specified traits, but we chose breed as the example trait in this case. It provides information about the lineage of goats, including their parents. This will be useful in creating our family trees. After inserting a new goat entry, this view can be queried to view the lineage of the newly inserted goat.

Our SQL statements allow us to perform our use cases. Each of our SQL queries performs a different function:

`INSERT INTO animals` - This SQL statement inserts a new goat entry into the `animals` table, providing values for attributes such as `animal_id`, `breed`, `sex`, `dob`, `dam`, and `sire`. It lets you add a new goat to the database along with its basic information.

`INSERT INTO session_animal_traits` - This SQL statement is used to insert trait information for goat traits into the `session_animal_traits` table. It associates the new goat with specific traits and also classifies those traits based off of `trait_code`, `alpha_value`, `alpha_unit`, and `when_measured`, enabling the tracking of various characteristics of the goat over time, which is needed for our weight prediction we plan on doing.

`INSERT INTO session_animal_activities` - This SQL statement inserts activity information for the new goat into the `session_animal_activities` table, allowing the logging of activities associated with the goat, such as `activity_code` and `when_measured`.

`INSERT INTO picklist_value` - This SQL statement allows people to add new values and traits to be associated with goats. This data is useful when associating a note to a goat.