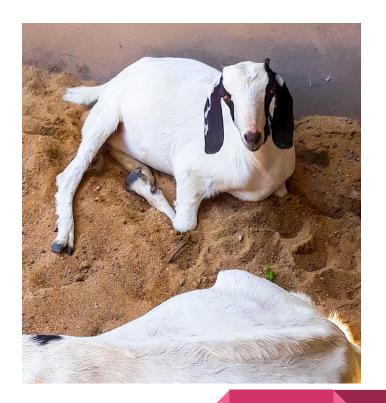# Project Proposal Pitch

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Partner Problem

- Understand the performance of each individual doe
- "Performance" based on many measurable factors:
  - Doe's birth weight
  - Kids birth weight
  - Twins, Triplets, or Single births
  - Kids birthed
    - Total number
    - Premature deaths
    - Birth weight
  - Motherly behavior
  - Milk production
  - Vigor Score

Proposed Solution

- Use a points system
  - The higher the total, the better the Doe
  - Can be used as an overall ranking, but specifics are simplified
- Give each measurable factor a total number of points
  - Assign positive characteristics a high amount of points
  - Assign negative characteristics a low amount / no points.

Performance Evaluation

- Based on many factors relating to ideal birthing of children
  - Health of the children are considered
  - Consistency = Higher Scores

The Scoring System

Number of kids:

- Twins = 4pts.
- Triplets = 3pts
- Single = 2pts.

Mothering:

- Good = 5pts.
- Anything else = 1pts.

Birth Weight:

- < 6lbs = 3pts.
- > 6lbs = 5pts.

Kids Weaned:

- All = 5pts.
- Anything else = 0pts.

Milk rating:

- Good = 5pts.
- Anything else = 1pts.

Kid Vigor Score:

- 1 = 5pts.
- 2 = 2pts.
- 3+ = 0pts.

How will this information be helpful?

- Gives an easily comparable single-number rank for every Doe
- Will be automatically computed, avoids the long and tedious process of manual searches and doing many comparisons across many different forms of criteria / data points / goats
- Can give insight on the causes of certain performance issues and successes

Group Design Problem

- Find out how a goat's Dam impacts their current status (sold/current/dead)
- Help recognize patterns between specific parents
  - Can be used in a ranking system, the more sold the better
- Assumes that a goat being sold is a positive attribute

Proposed Solution

- When Doe information is available for a given goat, attribute its current status to its parent Doe
    - Status can be Current, Sold, Dead
    - Current is a slight positive (+1)
    - Sold is very positive (+3)
    - Dead is negative (-3)
    - Exact point values can be changed.
- Can then sort through the entire list of Does to see which has the most consistent lineage

How will this information be helpful?

- Helps to identify well-performing Does
  - Helps forecast future performance of Does
- Can help increase sales by intentionally breeding more successful Does
- Can identify areas of improvement for certain Does
  - Finds trends if Does have children that are consistently dying, or remaining unsold for long periods of time