Neural and Evolutionary Learning

Final Project

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- The data comes from a farm in North Italy where the production is entirely based on **Automatic Milking Systems (AMSs)**. In the AMS adopted in this farm, cows decide when to go to the milking robot.

- At each milking event, the milking robot acquires a lot of data on the cow level, regarding the milk itself, but also regarding the cow and its milking behaviour.

- Milk contents (fat, protein, lactose) are measured at each milking event, and they are used to evaluate the **milk quality**.

- The measurement process is not straightforward: it uses a colourimetric method and the robot needs to be calibrated every 2 weeks with measurements from the laboratory.
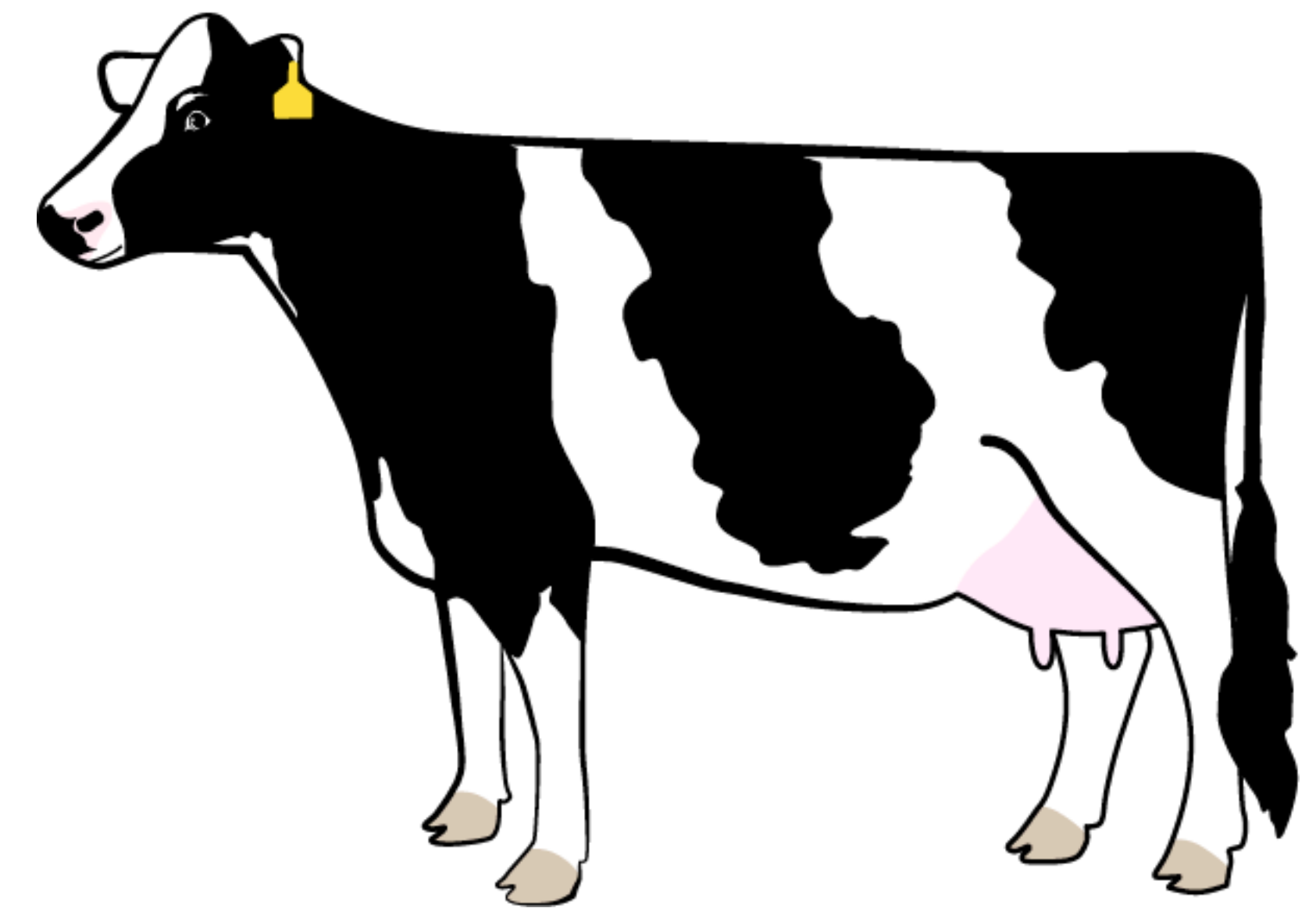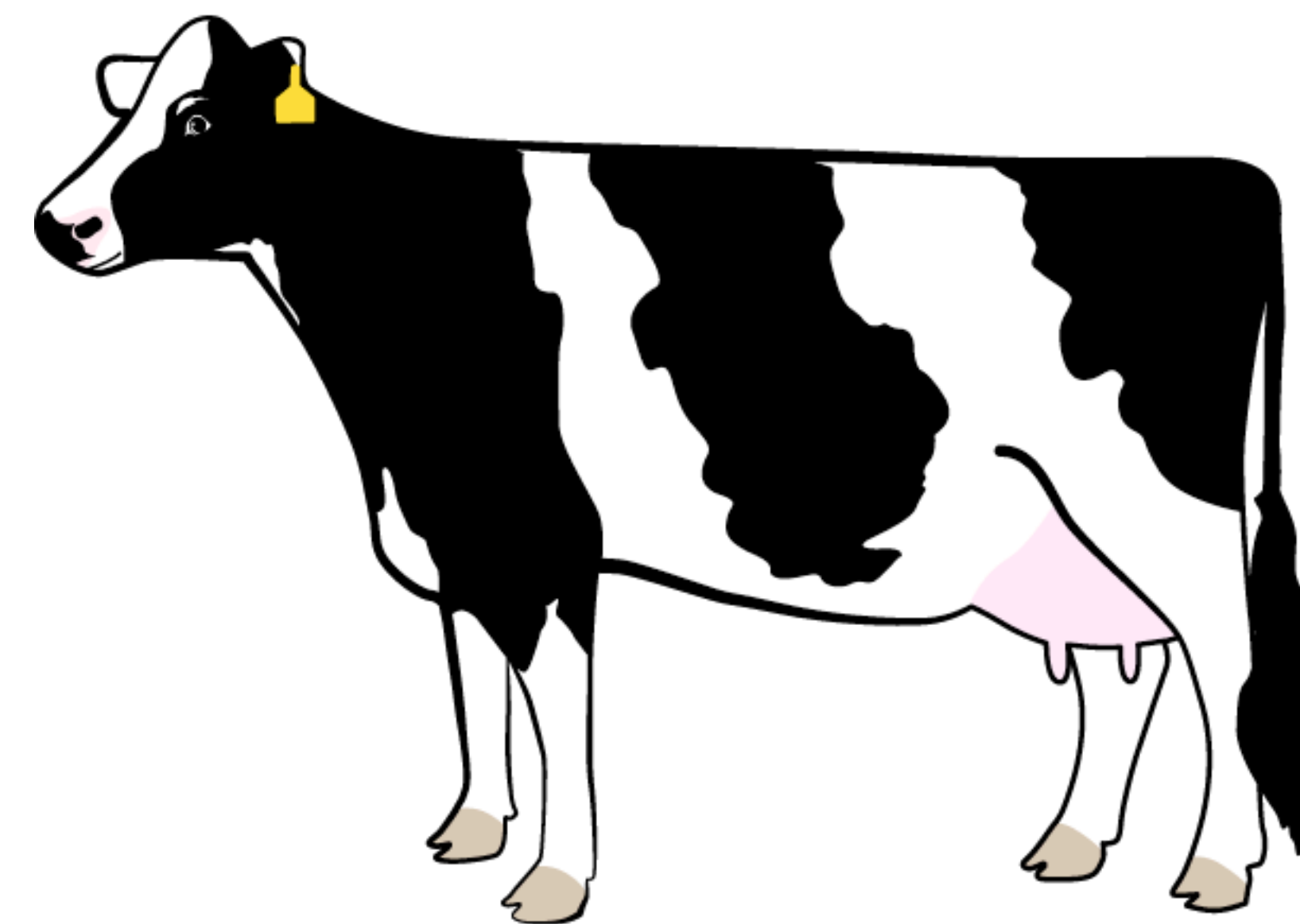
Project Goal

- The goal of the project is:

> *To infer the milk components from the other data from the milking robots.*

- The required model is for **Lactose** content prediction. Additionally, you can also work with models for *Fat* and *Protein* contents.

- Let's take a look at the data.

Coding time → jupyter

Questions?