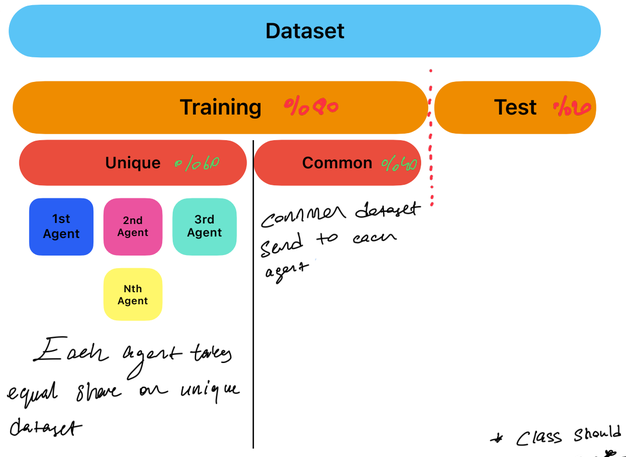
Summer Internship
Multi agent federated learning

Split process



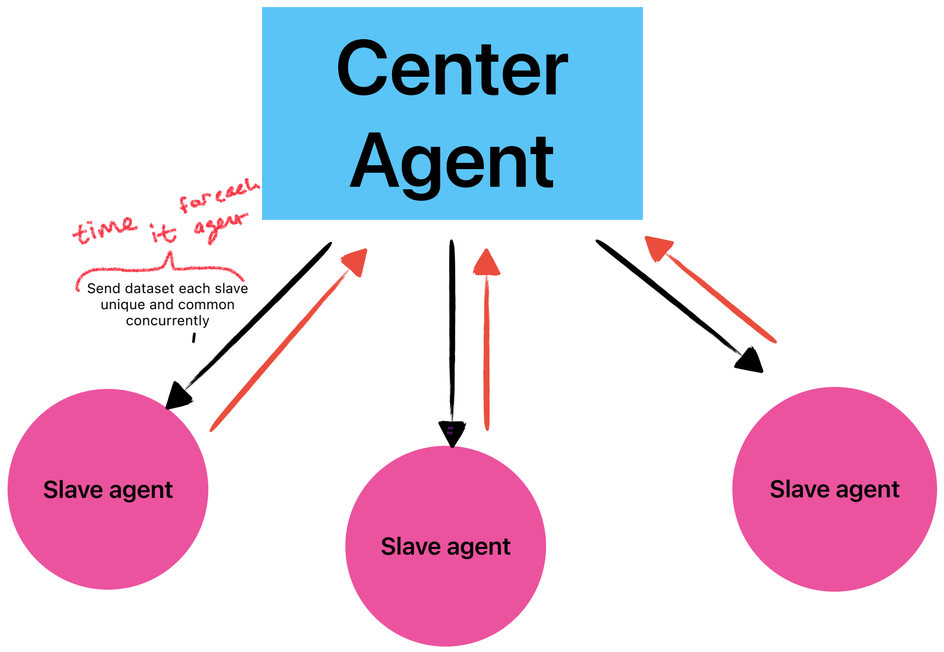
common dataset send to each agent

Each agent takes equal share on unique dataset

Notes: * Persentages can vary!

* Class should keep an argument for percentages.
args: * Traning / test ratio
* Unique / comon ratio
* Agents count → manuel way or check connection?

* Center agent does splitting process.
* Should we pre-assemble each unique-common pair before hand?
  - what is the most efficient way of it?
    - Save to disk after splitting done. then read and send to agents each concurrently.



→ : Symolizes 2 interaction

2 → "Traning done" feedback → time traning time send info with this feedback.

4 → metric / estimated value feedback

ASK? which one

→ : Symolizes 2 interaction

1 → Sending traning dataset

3 → Sending test datasets

Software Architeture

Base class
* * publicub methods or other networking related

derived

Master Class
* Split method
* number of slaves

Slave Class
id
name
algorithm type
time method
metric calculate
predict
'
'

impl. each different
ML algo / Neural network in here

then create instances based on this