

## # Agenda.

- ① LightGBM
- ② Stacking
- ③ Cascading

## # LightGBM (2017) [MSR]

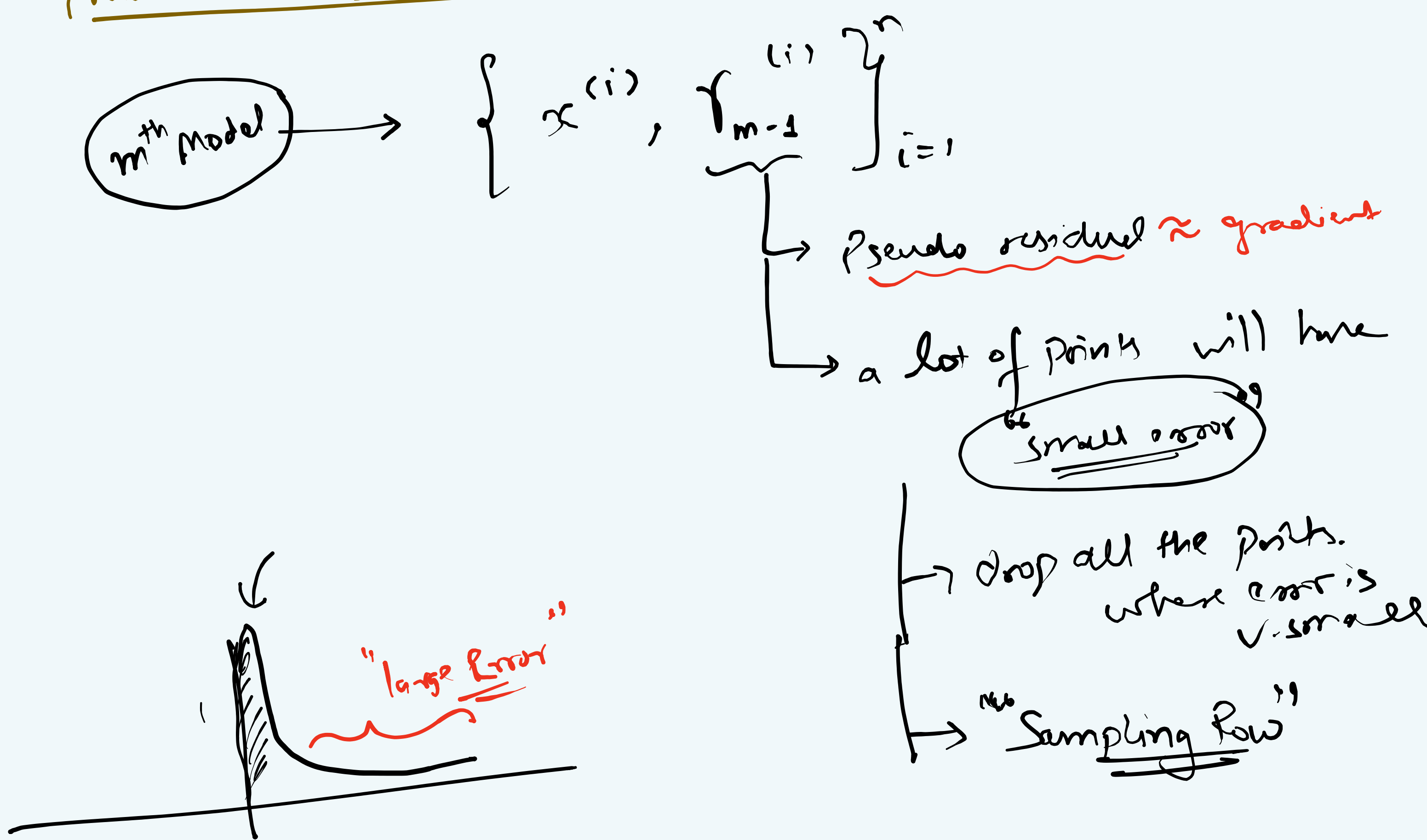
↳ GBDT

XGBoost → 2016

→ faster than XGBoost

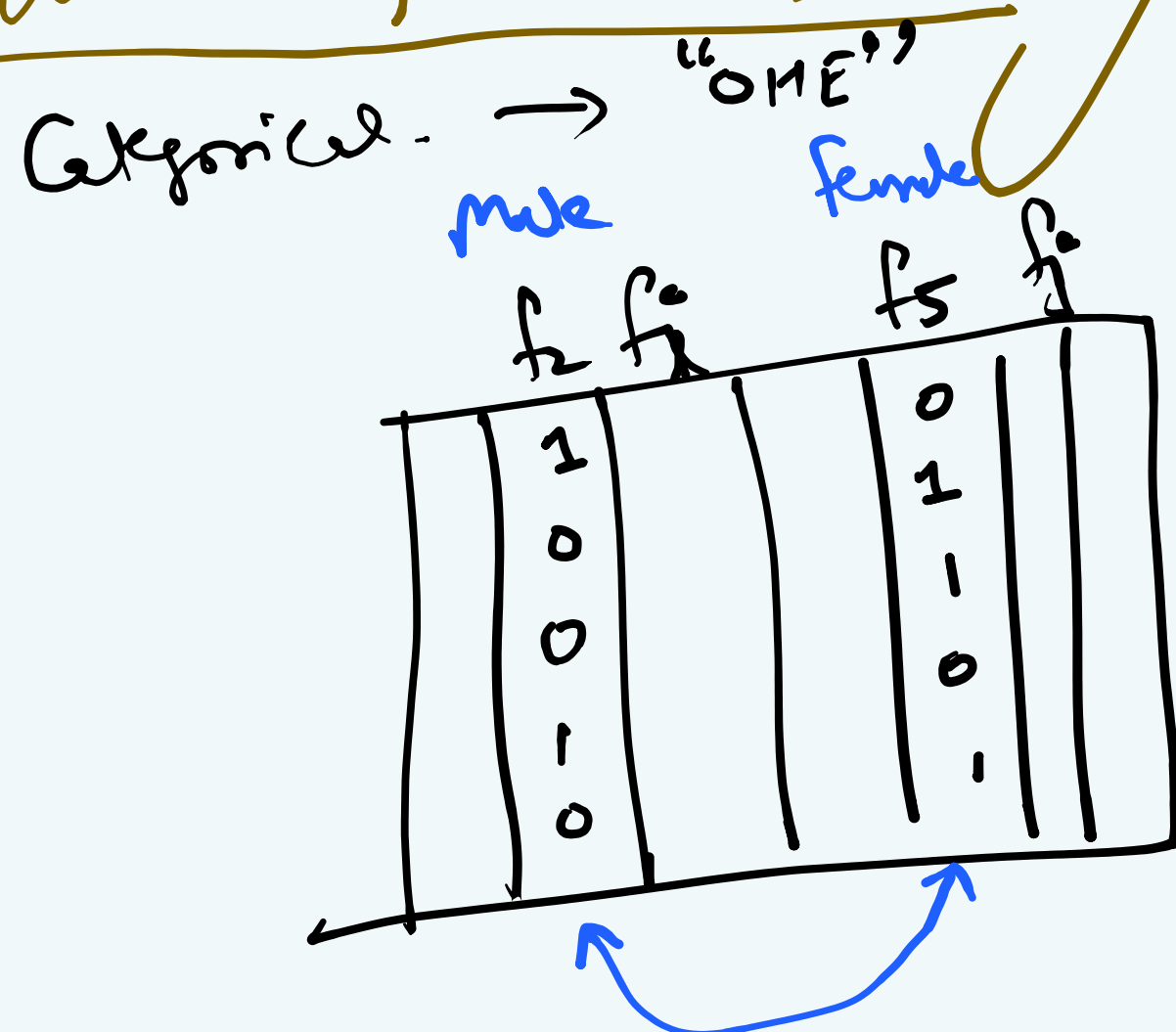
- ① Goss
- ② EF3

### ① [Row Sampling] Gradient based one side sampling (Goss)



### ② [Feature Bundling]

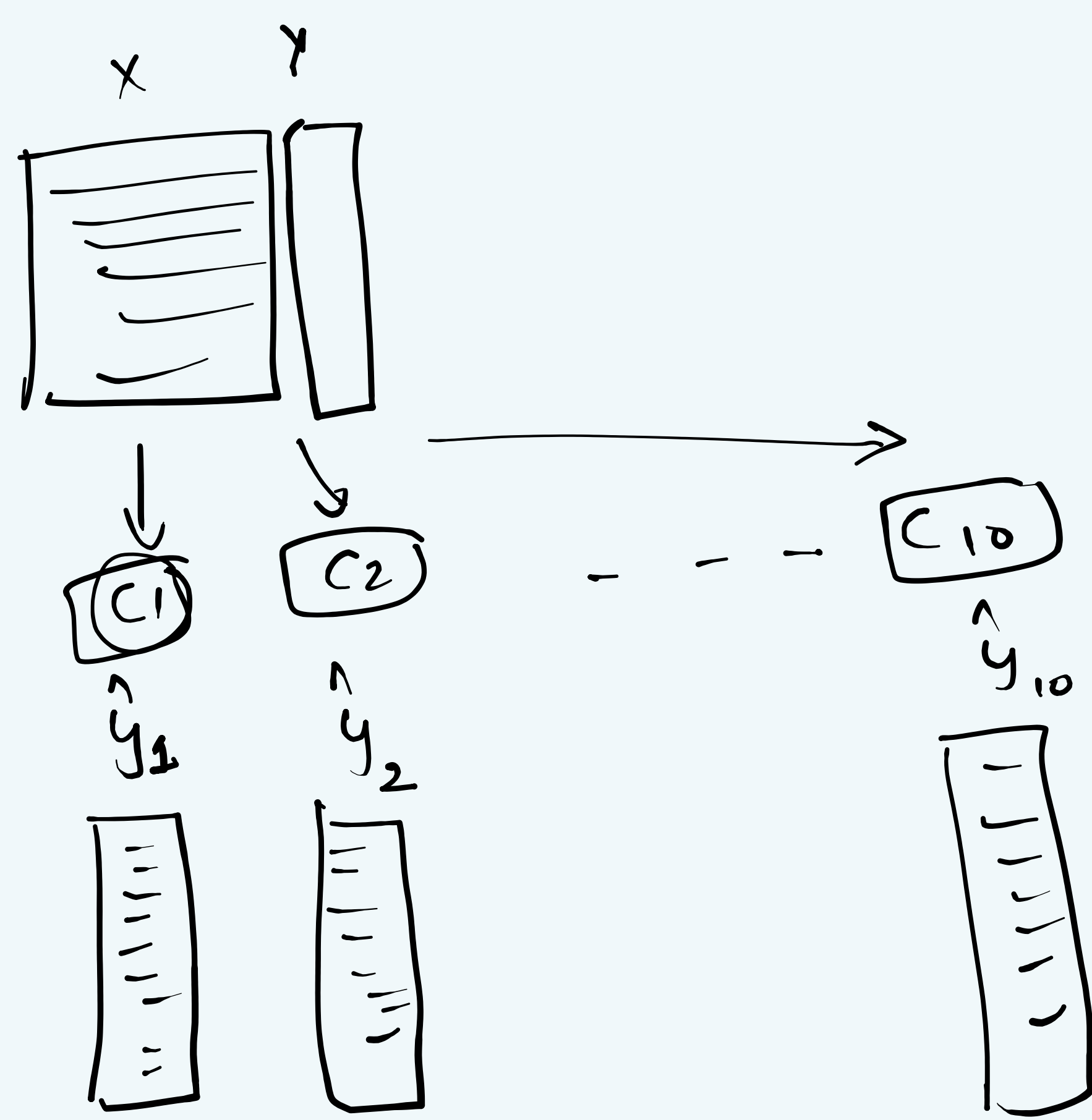
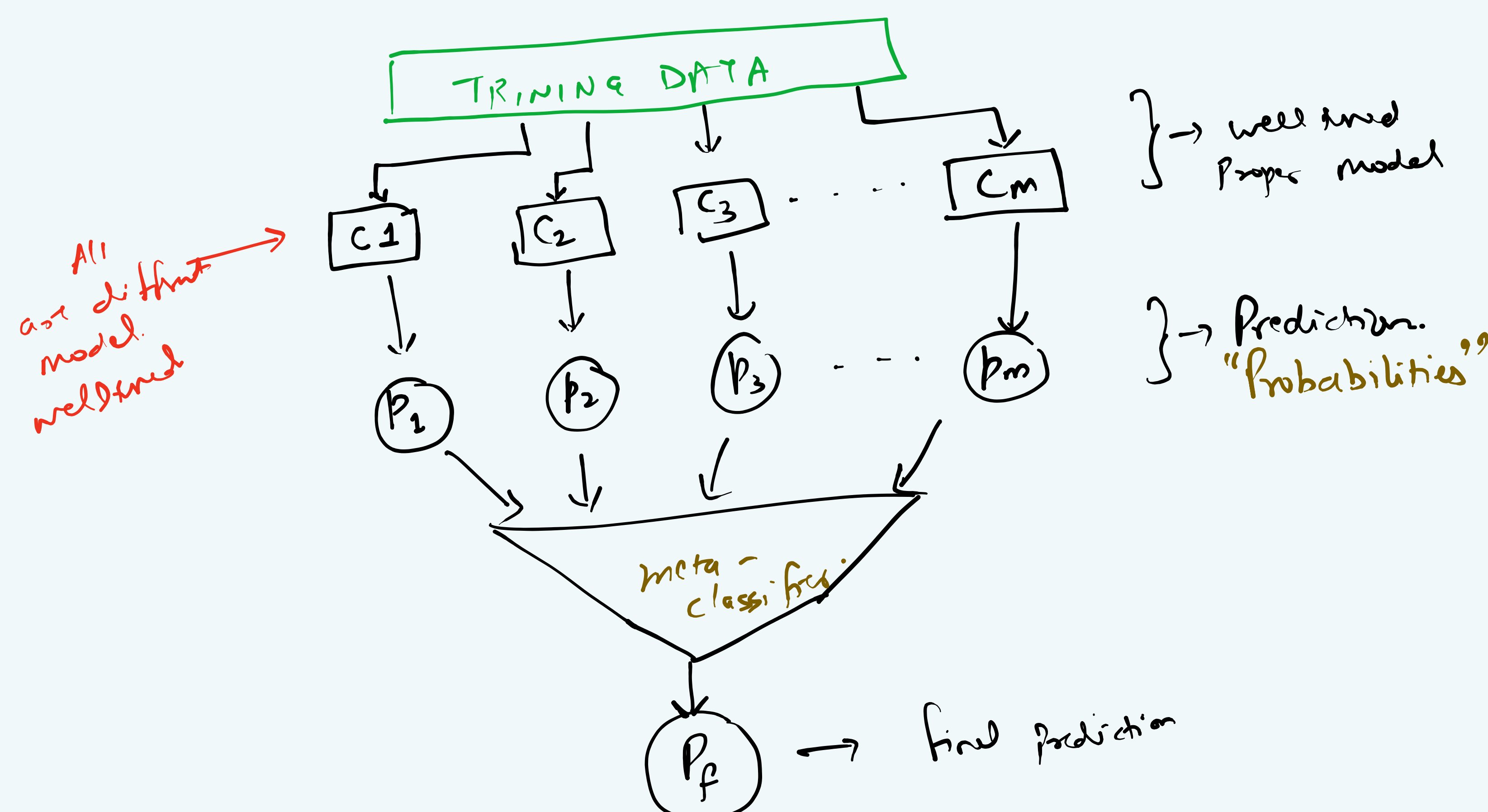
### Exclusive feature Bundling (EFB) Purpose?



## # Stacking

↳ not in real world

↳ a lot "kaggle"



## # Cascading

→ industry perspective

→ "fraud Detection"

