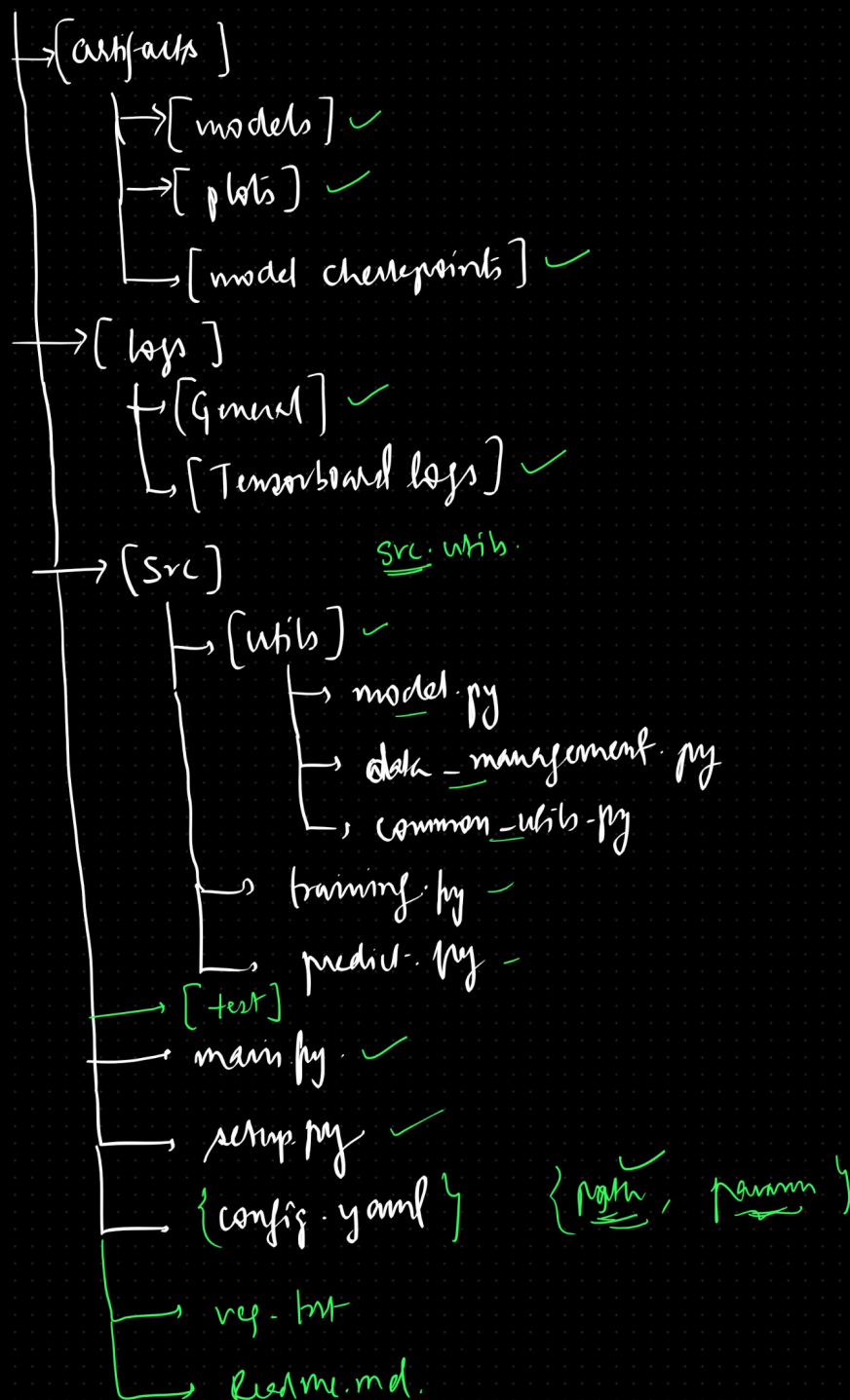


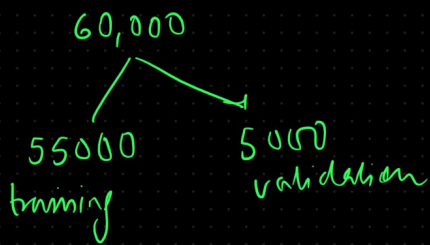
# AGENDA

- i) ANN implementation using python scripting ✓
- ii) Using a central configuration file. ✓ *It's importance*
- iii) Using slur to run python script. {To make use of GPU}
- iv) Project Structure



MLOps  
AIOps

# { IMP update :- }



batch\_size = 32 samples

every epoch

↳ steps per epoch = 1719 {total\_training\_sample / batch\_size}

each step → 32 samples (batch)

error for every sample

↓  
average of error

↓  
gradient step

weight updates = 1719 times

$$1719 \times 32 \approx 55000$$

$$\text{Steps} \times \text{batch size} \approx 55000$$

32 → batch\_size

$$\text{1 epoch} \left\{ \begin{array}{l} \frac{55000}{32} \text{ data points} \\ \text{batch size} \\ \approx 1719 \end{array} \right.$$

n epochs {

Training steps  
error calculation ✓  
weight update ✓  
gradient step ✓

default batch size = 32

$$55000 / 32$$

immediate evaluation  
after every epoch



validation  
error calculation

→ X  
→ X

$$5000 / 32$$

evaluation  
after final epoch



evaluation  
error calculation

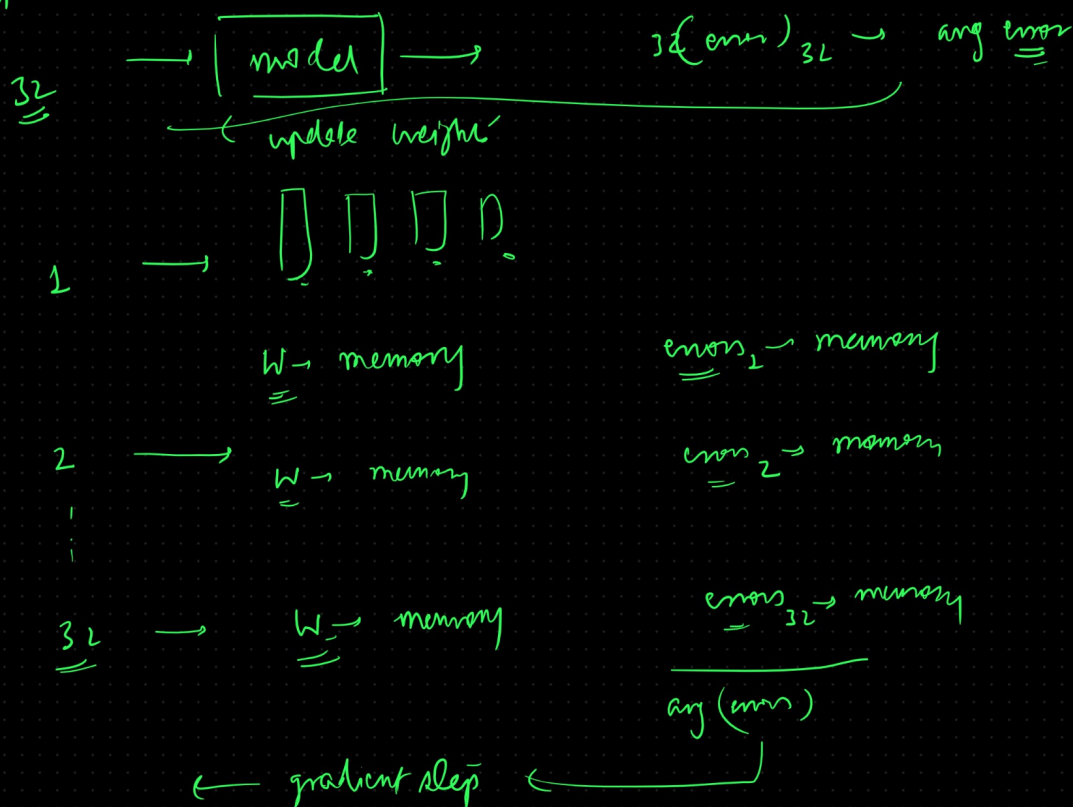
→ X  
→ X

$$10000 / 32$$

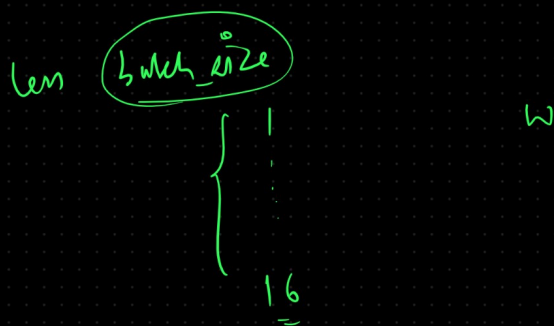
prediction

single data →  $W \cdot x + b = \hat{y}$

Each step per epoch  
32 samples



RAM → 8GB → error → Out of Memory (OOM)



Prediction :-

