1. LLM → NLP

Predicts the next (token) → word
→ Subword

probabilistic

deeplearning → absence of state

RNN

LSTM

I was born in France

My mother tongue is ○ → French

2017 Ashish Vaswani

Attention is all that you need

TRANSFORMERS

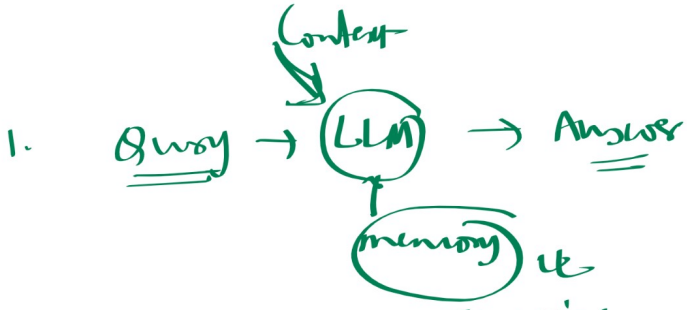
The dog chased the ball and (it) bounced

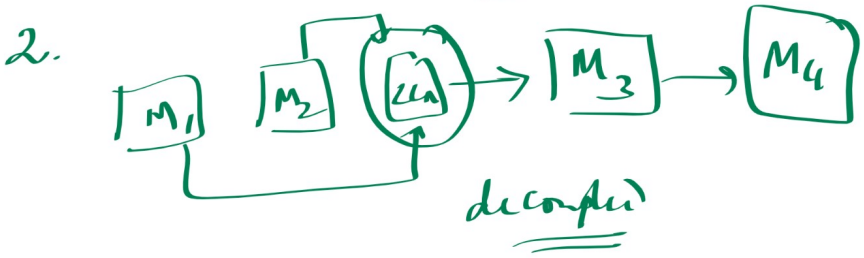
GPT

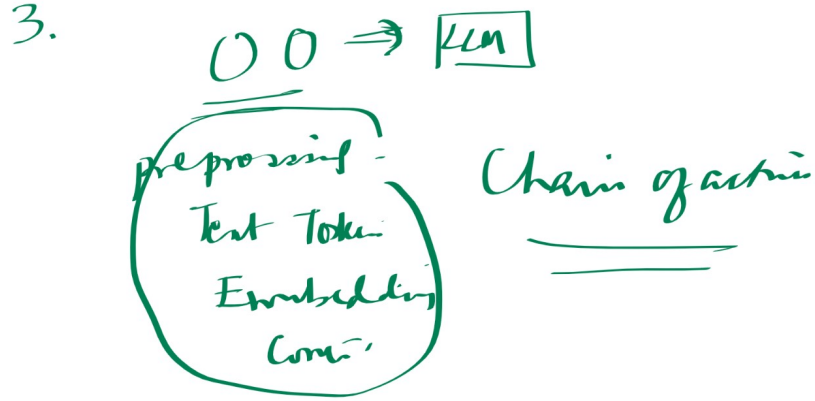
LLM → foundational model

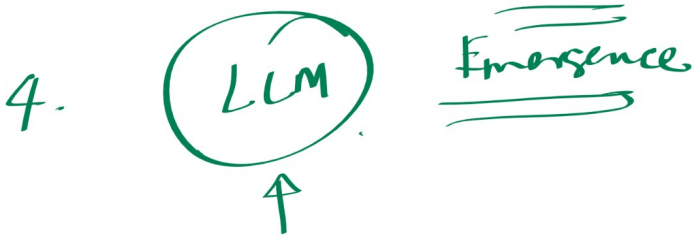
Maximum likelihood.

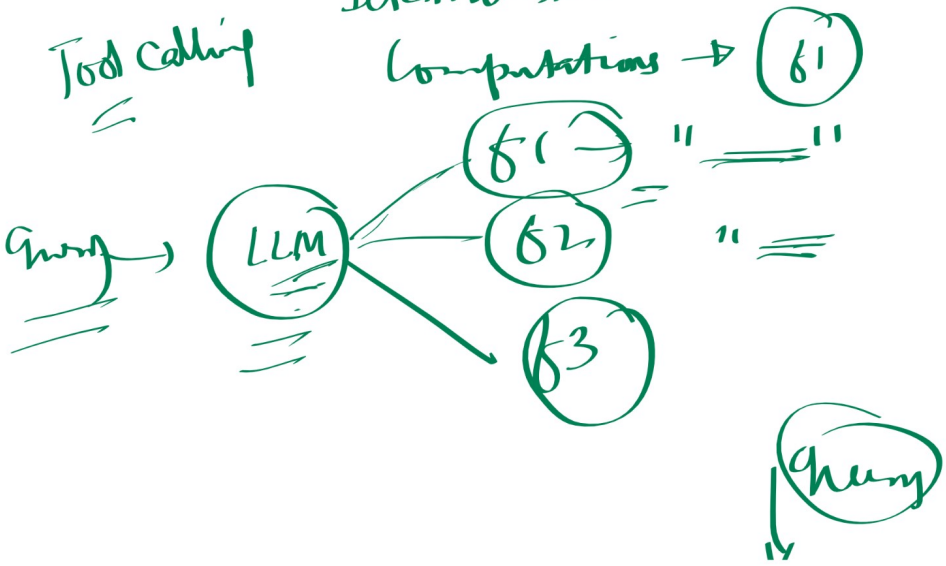
Badanau Attention + LSTM → Ashish → Attention is all you need



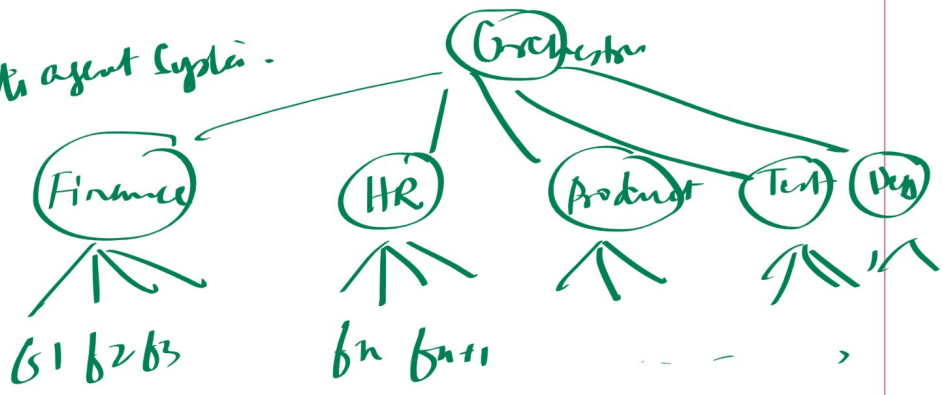








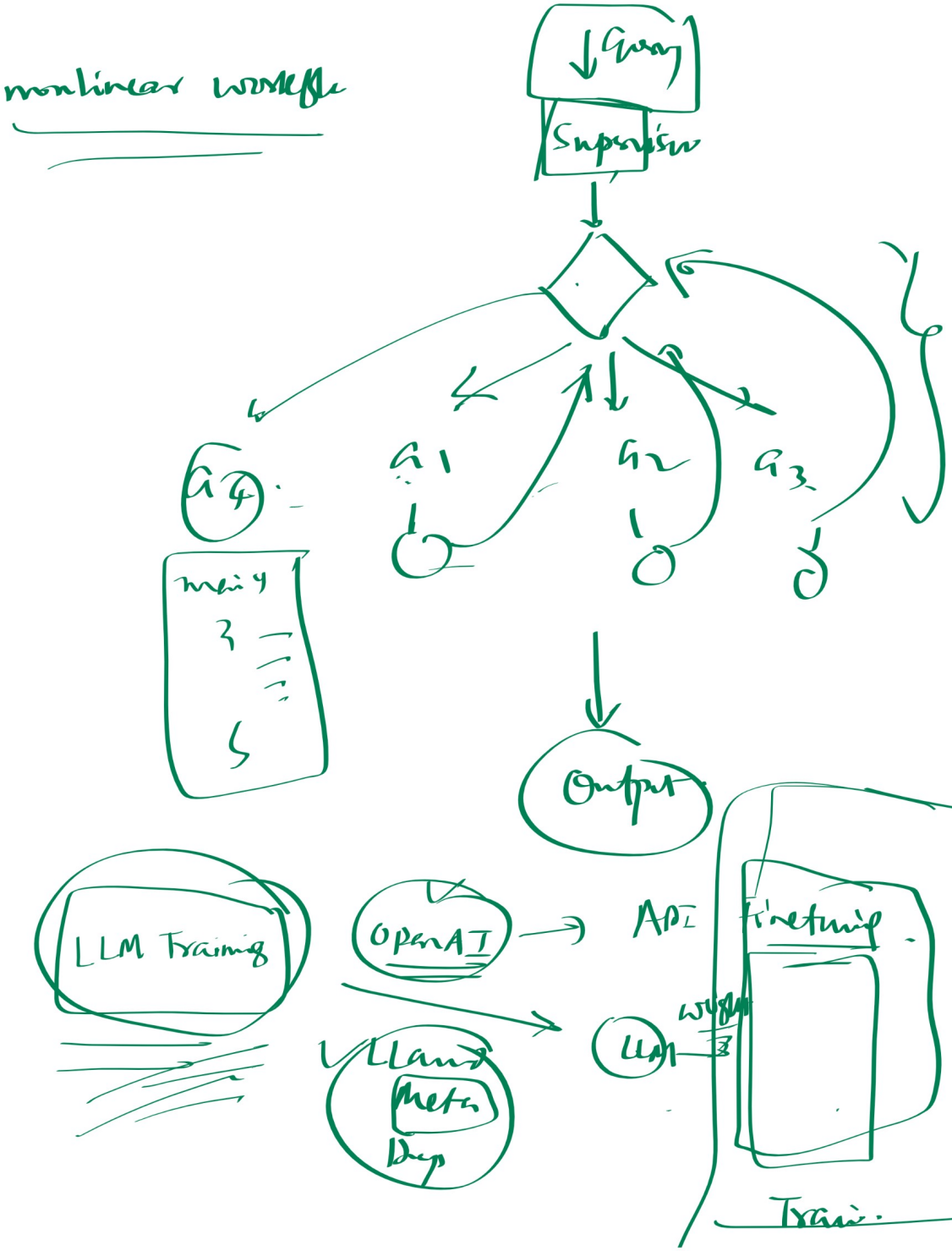
(5) Multi agent system.

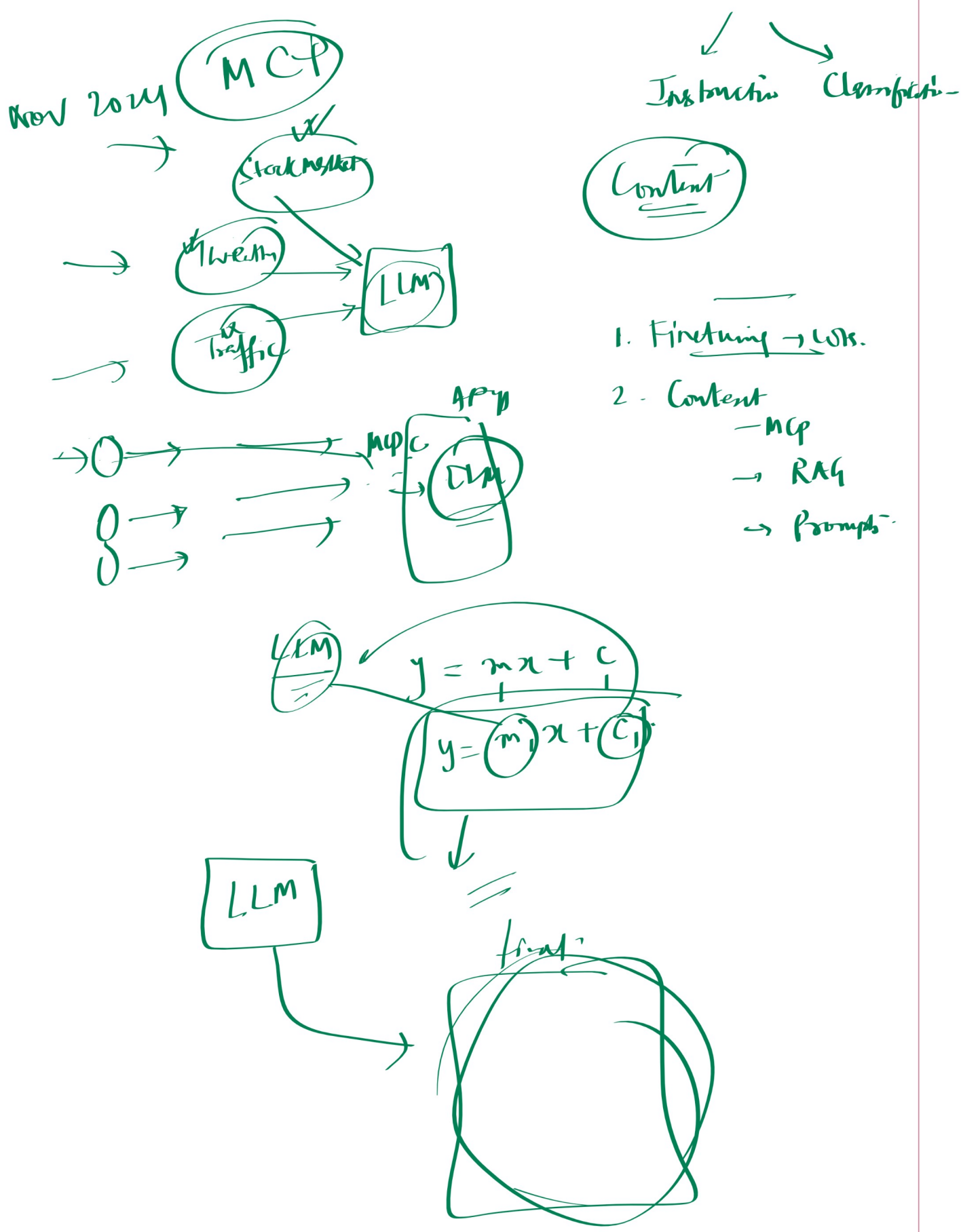


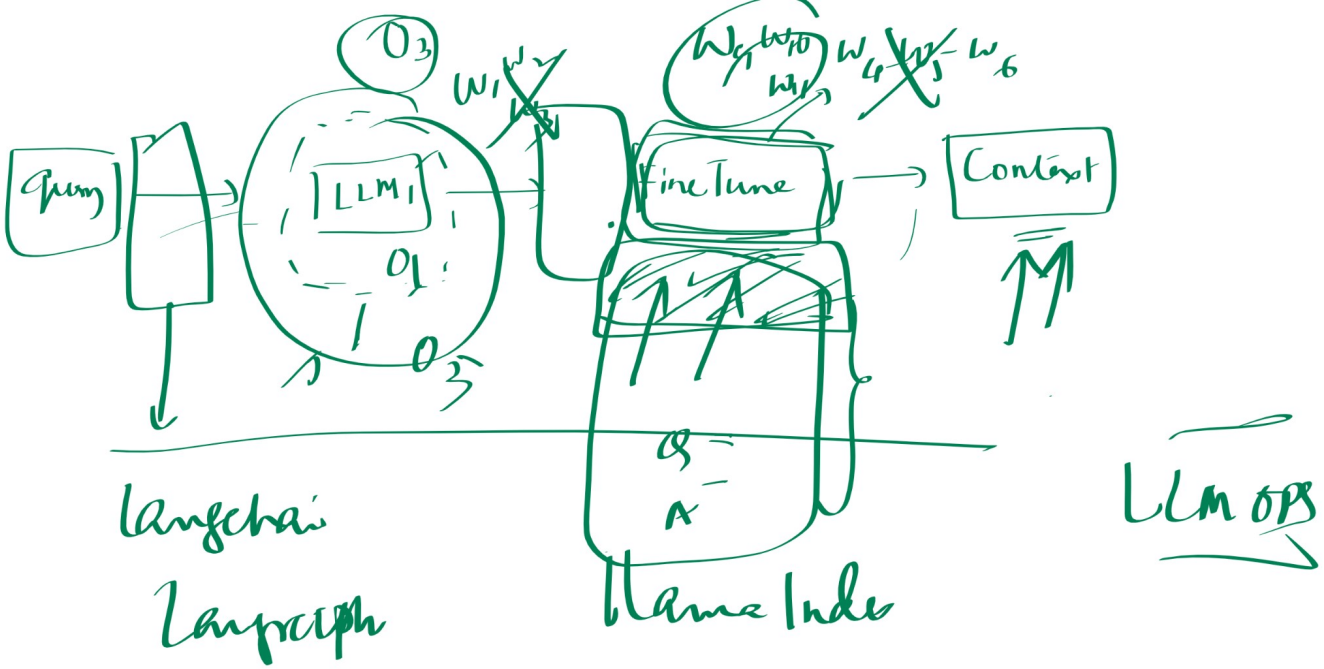
→

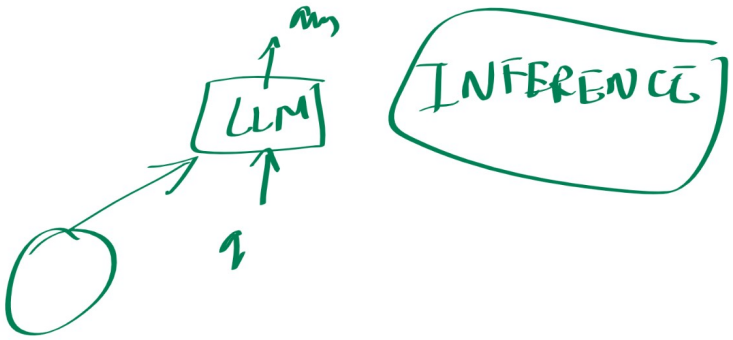
query → PP → add cont → LLM → ans

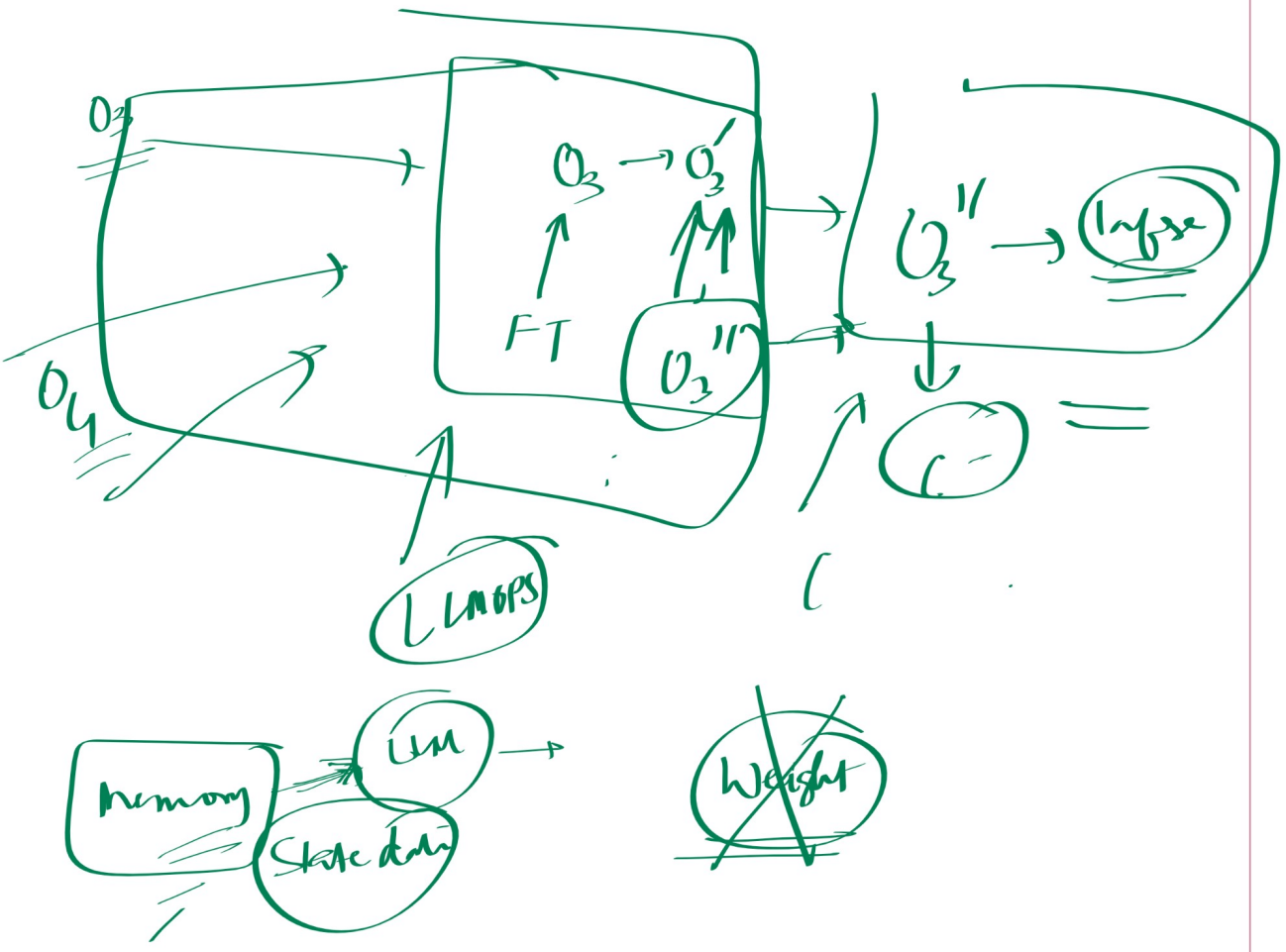
nonlinear workflow

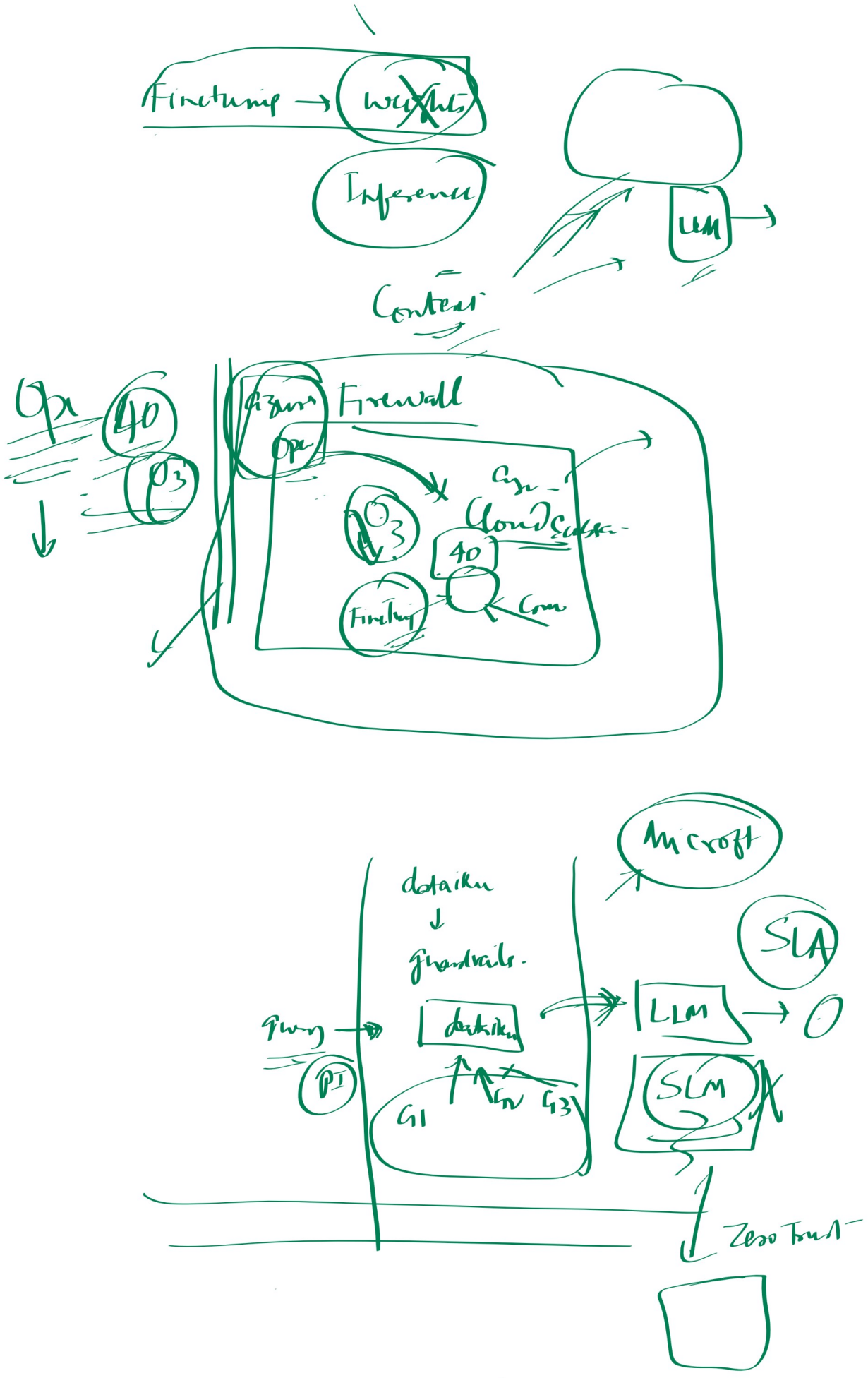


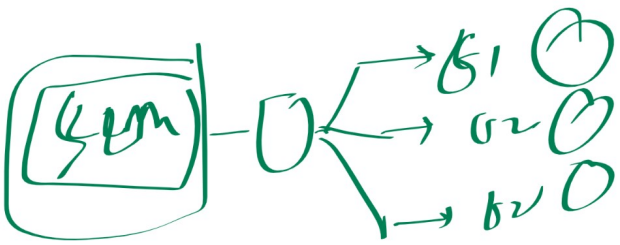

Instruction
Classificati-
Content
MCP
Now 2024
Stock Market
Weather
Traffic
LLM
1. Finetuning → Costs.
2. Content
- MCP
→ RAG
→ Prompts.
Apply
MCP
LLM
LLM
y = mx + c
y = m x + c
LLM
final


Query
LLM
Fine Tune
Context
Langchain
Langraph
Llama Index
LLM OPS


LLM
INFERENCE


FT
LLMOPS
Memory
LLM
State data
Weight


Finetuning
Inference
LLM
Context
Firewall
Cloud
Microft
SLA
LLM
SLM
Zero Trust


System
b1
b2
bn