# Final Project

### Deliverables

- Decide your project idea (by 12.07)
  - The problem you will be addressing
  - How you plan to address it
  - What are you proposing to specifically design and implement

• We are happy to discuss project ideas via e-mail or in person

#### Deliverables

- Report (Individual)
  - What problem you solved
  - What your code dose
  - e.g., Background, Design, Implementation, Evaluation

- Presentation (Group)
  - 15 mins

## Half-baked project ideas

- Re-implement a system on our cluster
  - Tiny TensorFlow
  - Ray
  - PyTorch + Spark
  - Collaborative editor

Benchmark

## Case Study

## Benchmark Test of Message Queues -- Kafka and ActiveMQ

- A general benchmark test tool
- Metrics: throughput, latency, reliability, fault tolerance, scalability
- Single vs. Multi-nodes

• 12-24 hours/person

### Score

- 每人需要为每组评分(除了自己这组)(50%)
  - · 每项满分100, 给出不重复的分数
  - 工作量
  - 创新性

$$f(r, n, \alpha) = \alpha + (100 - \alpha)\sqrt{\frac{(n - r + 1)}{n}}$$

• 教师评分(50%)