1 Problem

Exisitng Framorks are statically allocating resources to jobs
-¿ cant maintain SLOs while maintaining full utilization and efficiency
- 1 solution killing tasks -¿ high overheads
- 1 solution only use 70% of resources
——Utilizaztion: using all resources; Efficiency: not rdoing tasks

2 not working solutions

make task size smaller -¿ more disk seeks and more overhead at scheduler
uniform size tasks -¿ doesnt work because $\frac{inputamount}{tasktime}$ is not consistent
OS checkpoints, suspend and save state in memory -¿ too much space needed, HDD no option too slow etc.

3 Solution

Amoeba - Prototype
Smallest granularity is task -¿ make it more granular -¿ split up tasks
Mapper gets set of records as input (a list of words); every possible sublist is a admissable partitioning of the data (the blocks to work on can consist of any number of words); you can kill a task after every record and pretend you made the blocks that way A Checkpoint is the nest key where to continue