

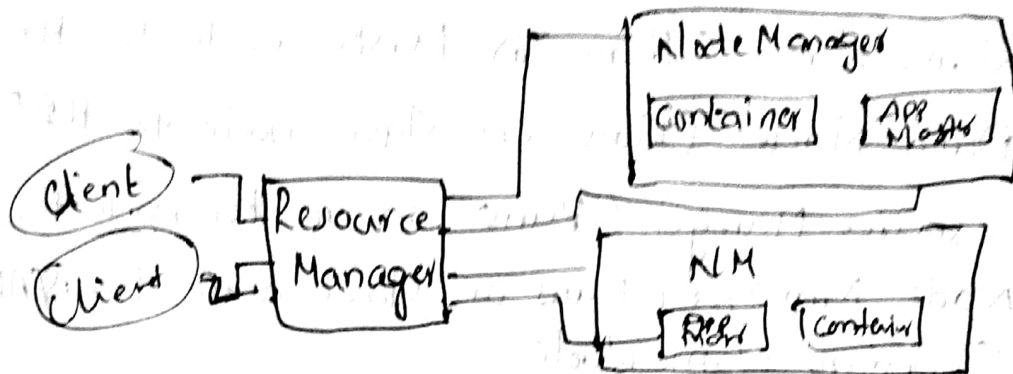
YARN - Yet Another Resource Negotiator



Mangal

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- YARN is umbrella framework under which MapReduce ^{run}
- YARN is resource management and job scheduling technology in Hadoop DFS



YARN Components

Resource Manager: - Assigns resources among application for optimal resource utilization

- One cluster has one instance of Resource Manager

Node Manager: Run on each node & communicates with Resource Manager about resources usage

- It receives requests from RM about resource allocation and maintains life cycle of containers

Application Master - Responsible for processing


- Request Resource manager for requests and works with node manager to those resources for task execution.

- Application Master can be Map Reduce or any other processing framework.

Scheduler: Plugged with Resource Manager to help in resource allocation.

Container: It is a set of allocated System resources

- Containers are allocated and managed by Node manager and are used by tasks

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- Resource is managed by Resource Manager.
- Processing is handled by Application Master

MapReducer: is a slw framework for distributed processing of large datasets on clusters

Mappers: Its a java programming unit which analyses one block of data, of big data file

Reducers: It is a Java programming which aggregates o/p coming out of mappers, combines and presents final result.

Anatomy of YARN Request

