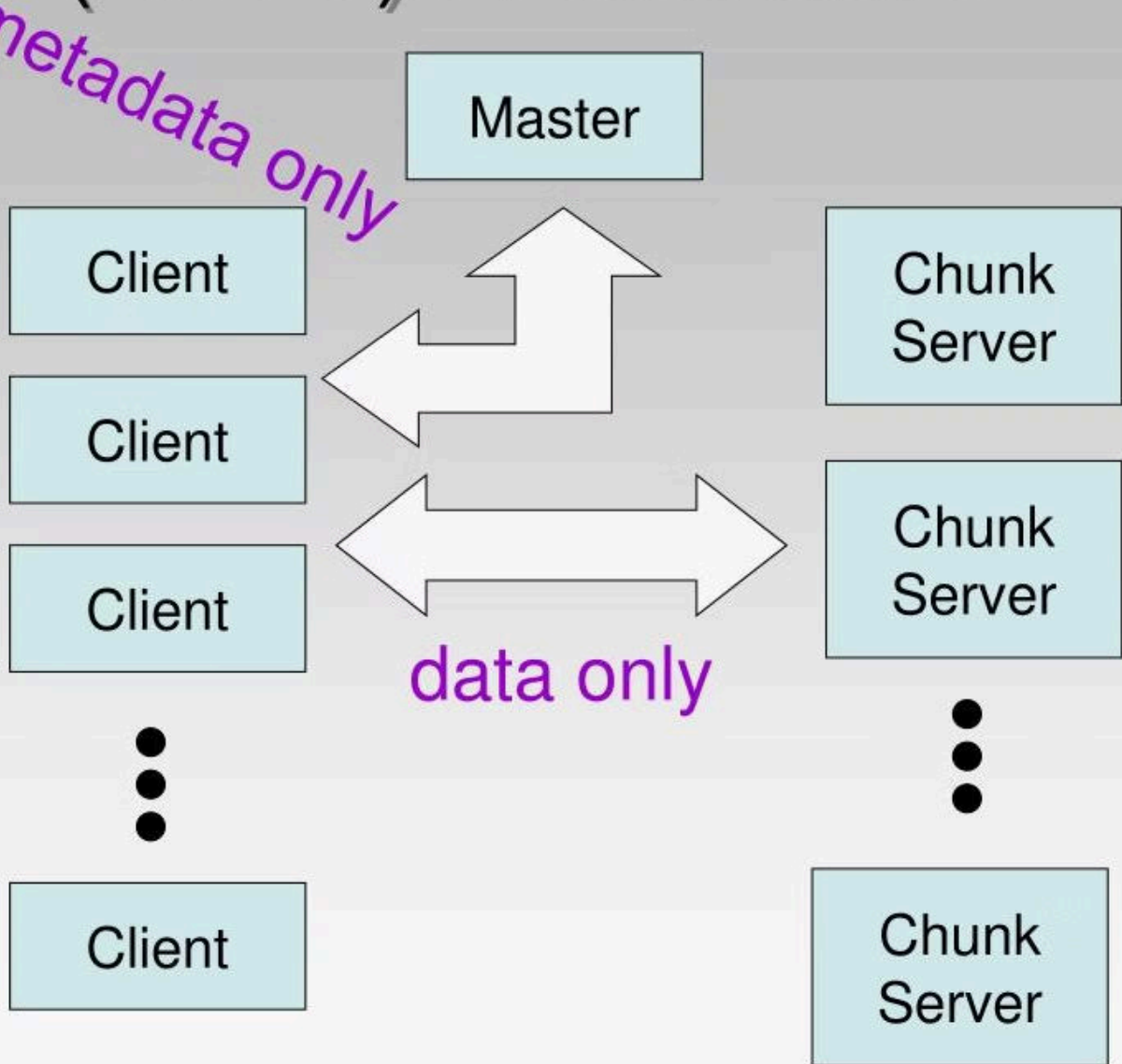


# S (HDFS) Architecture



## Hadoop and HDFS Basics

When working with Hadoop and HDFS, it's important to understand the fundamental concepts and commands for file management and data processing. This guide provides a step-by-step approach to creating directory structures, moving files between local and HDFS, viewing data contents, and retrieving files from HDFS to the local disk. Let's dive into the details.



The diagram illustrates the HDFS architecture. At the top, a 'Client' (grey oval) connects to a 'Name Node' (blue rounded rectangle). The 'Name Node' is connected to a 'Secondary NameNode' (blue rounded rectangle) and three 'Rack' units (orange rounded rectangles). Each 'Rack' contains multiple 'Data Node' (yellow rounded rectangles). The 'Client' also connects to the 'Data Nodes' in the racks. The title 'HDFS Directory Structure Creation' is centered over the diagram.

# HDFS Directory Structure Creation

1

Command for Directory Creation

Using HDFS commands, create a directory structure to organize data efficiently.

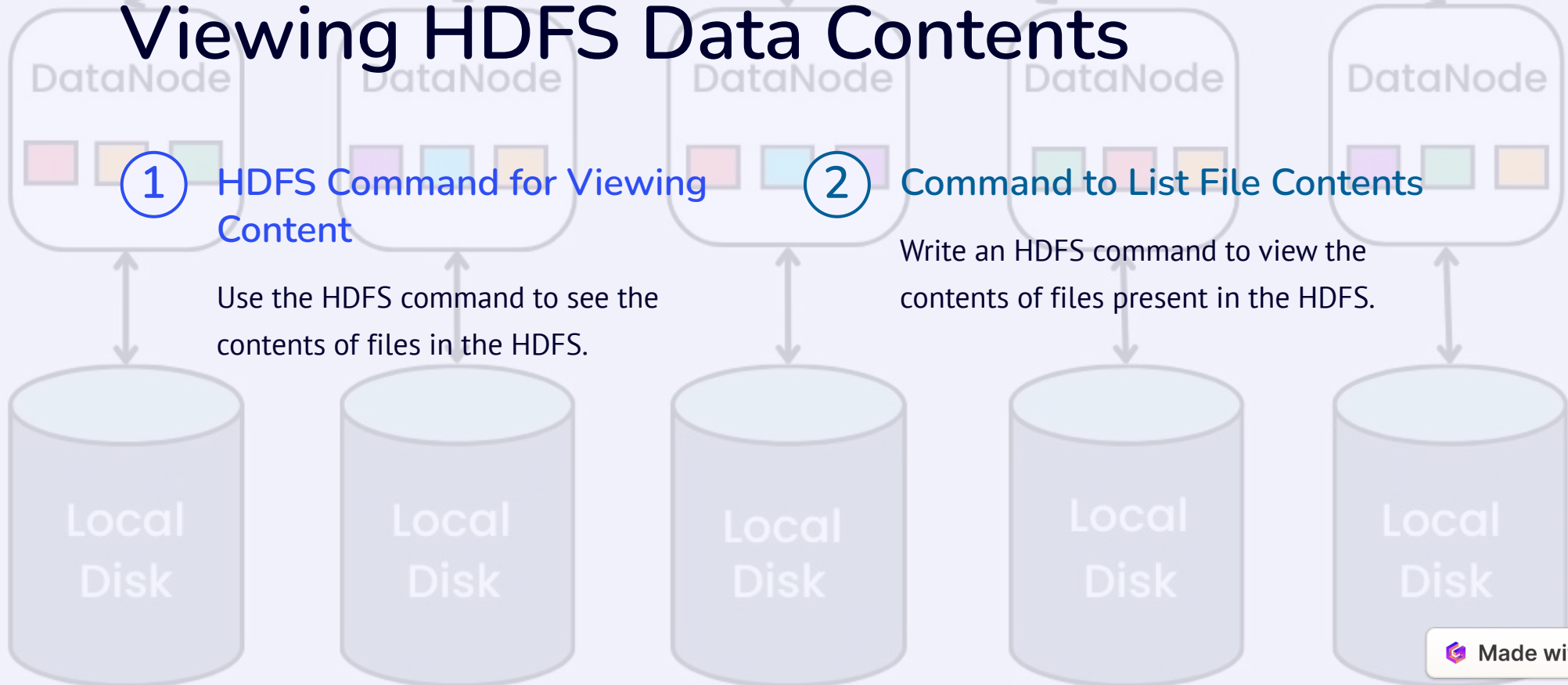
2

Command for File Movement

Use a command to move files from the local Unix/Linux machine to the HDFS directory.



# Viewing HDFS Data Contents



# Copying Files from HDFS to Local Disk

## HDFS Copy Command

Execute an HDFS command to copy files from HDFS to the local file system.

# MapReduce program with Combiner

## Data Processing with Hadoop Map-Reduce

### Map-Reduce Programming

The Hadoop Map-Reduce framework is versatile, allowing programs to be written in various languages.

