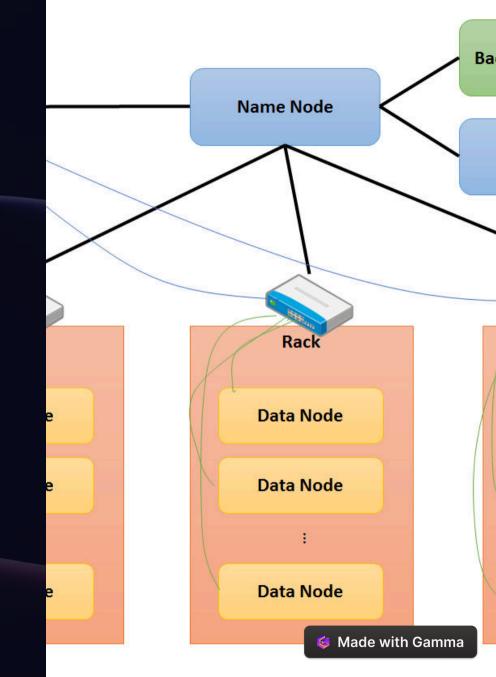
HDFS: A Comprehensive Guide

Learn how to manage directories, move files, view contents, and transfer data between HDFS and local systems.

📀 by pardha preetham



Client Name Node

Secondary NameNode

Creating Directory in HDFS

1 Step 1

Rack

Use the command hdfs dfs -mkdir -p /path/to/directory to create a directory structure in HDFS.

2 Data Nod Step 2

Replace /path/to/directory with the desired directory path.

Data Node

Data Node

Data Node

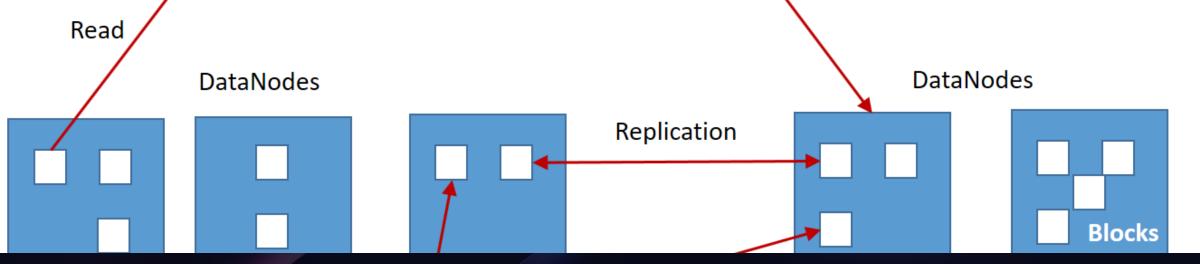
Data Node

Data Node

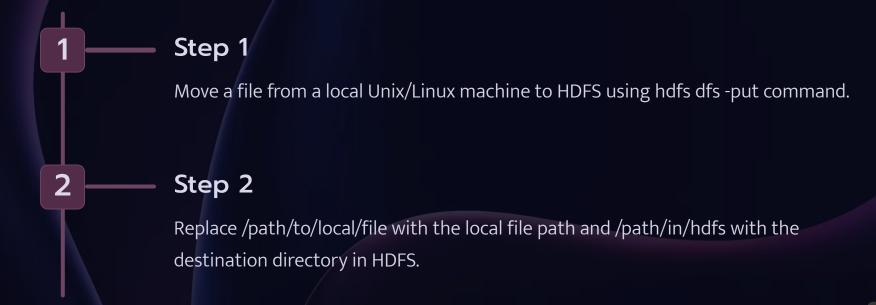
ata 🔰 🗳 Made with Gamma

Data Node

Data Node



Moving Files to HDFS



Made with Gamma

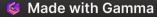
Viewing Data Contents in HDFS

See File Contents

Use hdfs dfs -cat /path/to/hdfs/file to view the contents of a file in HDFS.

View Directory Contents

Check the contents of files in HDFS using hdfs dfs -ls /path/to/directory.



Retrieving Data from HDFS

1 Fetch Files to Local Disk

Retrieve data from HDFS to the local disk with hdfs dfs -get command.

Managing Data in HDFS

Transfer Data

Move files from local systems to HDFS and vice versa.

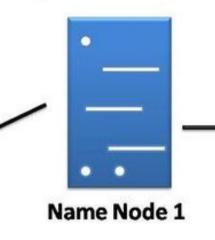
Retrieve and view data contents.

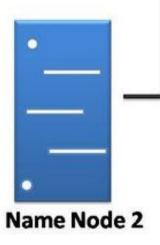
Retrieve & Review

DFS Architecture amenode Blockops Replication Write

Made with Gamma

System Archit





Best Practices for HDFS

Create Clear Directory Paths

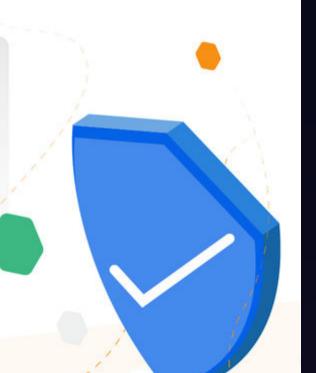
Organize directories logically to facilitate ease of access and management.

Use Descriptive File Names

Employ meaningful file names for easy identification and retrieval.



Hadoop ros and Apa



HDFS Security Measures

1 Access Control

Implement proper access controls to safeguard data in HDFS.

2 Data Encryption

Employ encryption methods to protect sensitive information stored in HDFS.