

# Working with HDFS

Learn the essential commands and operations for managing files and directories in Hadoop Distributed File System (HDFS).



by Rakesh Naik



- Nodes
- Networking
  - Networks
- System
- Cluster
  - Overview
- Components
- Settings

<input type="checkbox"/>	ID	Name	Host	Zone	Region	Status	Health		CPU	Mem	GPU	Updated ▲
	hdfs_name-1-node_d80f7965-cda1-4ae7-9556-a3d...	name-1-node	172.17.0.8	N/A	N/A	Running	●	📄	1	2 GiB	0	28 minutes ago
	hdfs_name-1-zkfc_37b4741b-5bbb-451b-98b7-f36...	name-1-zkfc	172.17.0.8	N/A	N/A	Running	●	📄	1	2 GiB	0	28 minutes ago
	hdfs_data-0-node_77d39a87-a09f-4880-ab9e-b5d3...	data-0-node	172.17.0.8	N/A	N/A	Running	●	📄	1	2 GiB	0	29 minutes ago
	hdfs_data-2-node_6fb639f7-e07b-4b86-87e9-01c6...	data-2-node	172.17.0.3	N/A	N/A	Running	●	📄	1	2 GiB	0	29 minutes ago
	hdfs_data-1-node_7892e564-6359-48cd-89de-f068...	data-1-node	172.17.0.7	N/A	N/A	Running	●	📄	1	2 GiB	0	29 minutes ago
	hdfs_name-0-node_8cd6f2d3-2b82-446c-a6ea-83f...	name-0-node	172.17.0.7	N/A	N/A	Running	●	📄	1	2 GiB	0	29 minutes ago
	hdfs_name-0-zkfc_5ef1f3dc-c000-42bf-bd03-85b2...	name-0-zkfc	172.17.0.7	N/A	N/A	Running	●	📄	1	2 GiB	0	29 minutes ago
<input type="checkbox"/>	hdfs.f32de9a8-5677-11e9-baf2-70b3d5800001	hdfs	172.17.0.7	N/A	N/A	Running	●	📄	1	1 GiB	0	32 minutes ago
	hdfs_journal-0-node_33ad2e2e-3810-47b5-980f-f6...	journal-0-node	172.17.0.4	N/A	N/A	Running	●	📄	0.3	2 GiB	0	2 hours ago

# Creating Directories

1

## Command

Use **hdfs dfs -mkdir** followed by the directory path to create a new directory.

2

## Example

For instance: **hdfs dfs -mkdir -p /user/example/new\_directory**

3

## Tip

Include the **-p** option to create parent directories if they don't exist.

# Moving Files to HDFS

## Command

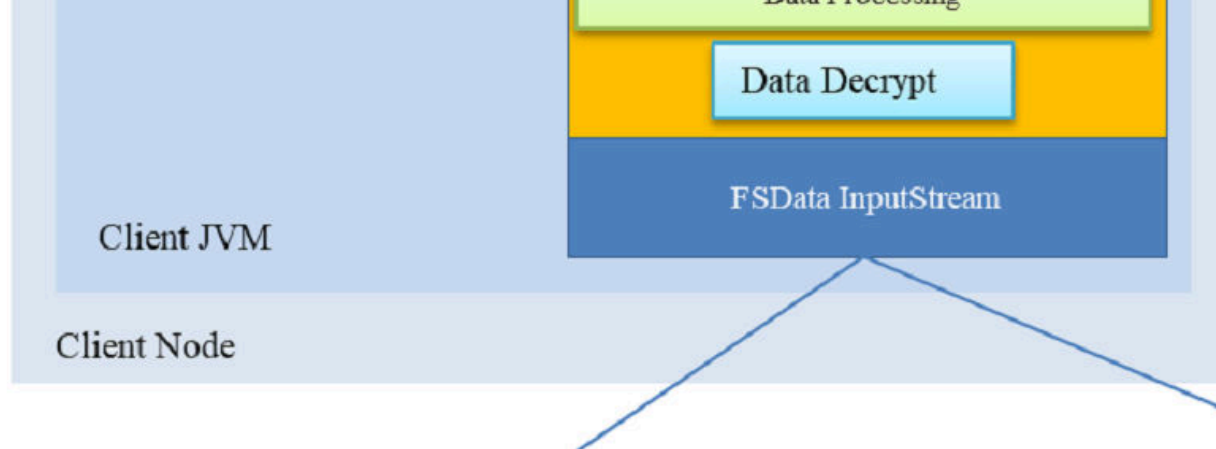
Use **hdfs dfs -put** followed by the local file path and the destination directory in HDFS.

## Example

Like so: **hdfs dfs -put  
localfile.txt  
/user/example/new\_directory**

## Essential

This command is crucial for transferring files to HDFS for processing.



## Viewing Data Contents

1

### File Contents

Use **hdfs dfs -cat** followed by the file path to view file contents.

2

### Directory Contents

With **hdfs dfs -ls**, view files within a directory in HDFS.

# Fetching Files from HDFS

## 1 Local Copy

Utilize **hdfs dfs -get** to copy files from HDFS to the local file system.

## 2 Example

For example: `hdfs dfs -get /user/example/new_directory/file.txt /local/path`

```
ache.hadoop.hdfs.server.namenode.RedundantEditLogInputStre
edits file /env/hadoop-2.4.1/dfs/name/current/edits_000000
t-forwarding stream '/env/hadoop-2.4.1/dfs/name/current/ed
v/hadoop-2.4.1/dfs/name/current/edits_0000000000000701760-
ache.hadoop.hdfs.server.namenode.RedundantEditLogInputStre
edits file /env/hadoop-2.4.1/dfs/name/current/edits_000000
t-forwarding stream '/env/hadoop-2.4.1/dfs/name/current/ed
ntered exception on operation DeleteOp [length=0, path=/lo
```

```
y.java:2410)
stem.java:3433)
.java:1418)
oader.java:502)
Loader.java:224)
er.java:133)
```

```
a:272)
a:891)
va:638)
)
```

```
8)
namenode join
```

```
1474)
```

```
a:272)
a:891)
va:638)
)
```

```
8)
```

# Convenient Commands

1

## Streamline

Simplify operations with essential commands for HDFS management.

2

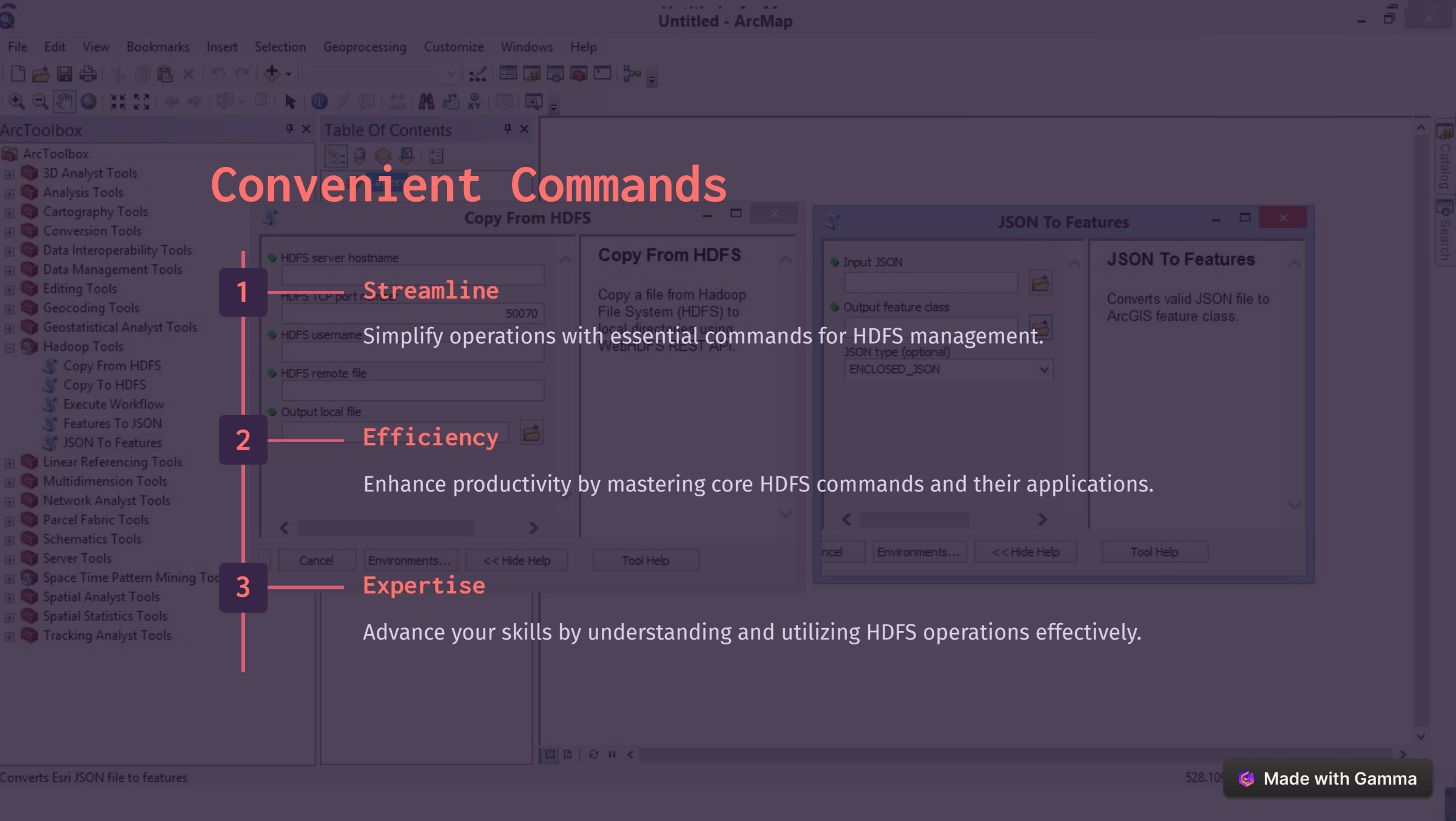
## Efficiency

Enhance productivity by mastering core HDFS commands and their applications.

3

## Expertise

Advance your skills by understanding and utilizing HDFS operations effectively.



# Effective HDFS Management



## Directories

Creating, organizing, and managing directories in HDFS.



## Files

Handling and manipulating files within HDFS.



## Data Transfer

Efficiently transferring data to and from HDFS.



## Shell Commands

Executing commands within the HDFS environment.

# Advanced HDFS Operations

Operation	Command	Purpose
Create Directory	<code>hdfs dfs -mkdir</code>	To create a new directory in HDFS.
Transfer File to HDFS	<code>hdfs dfs -put</code>	Move a file from the local file system to HDFS.
View File Contents	<code>hdfs dfs -cat</code>	View the contents of a file in HDFS.
Copy File from HDFS	<code>hdfs dfs -get</code>	Copy a file from HDFS to the local file system.