# What is lakeFS and why to adopt it?





## Why lakeFS?

Today, when working with data lakes over object storage it is difficult to test changes in isolation, stage new data pipelines/ML models in parallel to production, ensure best practices, debug issues or revert in case of a quality issue.

lakeFS is an <u>open source</u> project that enables managing data the same way as code. Enabling isolated development, safe data ingestion and resilient production.

#### How Does lakeFS Work?

lakeFS provides git-like capabilities such as branches, merges and commits on top of data repositories kept on object storage. lakeFS is format agnostic, works with Parquet, CSV, ORC, JPEG or any other forms of unstructured data.

The data stays in place, and lakeFS' metadata (for example references to objects within commits) is also kept within the object storage.

lakeFS prevents data duplication. For example, creating a new branch is a metadata-only operation: No objects are actually copied. Only when an object changes does lakeFS create another version of the data in the storage (copy-on-write). This design enables <u>exceptional performance</u> for large data lakes.

## Why Is This Approach Successful?

Git capabilities provide a simple and standard way to operationally perform what today are labor intensive, manual, error prone operations.

#### **Best Practice**

Develop in isolation
Reproduce data
Revert bad data instantly
Expose new data atomically
(cross-collection)

#### lakeFS Solution

\$ lakectl branch create my-branch
\$ spark.read.parquet('s3://my-repo/<commit\_id>')
\$ lakectl revert main^1
\$ lakectl merge my-branch main

## **About Treeverse**

Treeverse (the company behind <u>lakeFS</u>) was founded by experienced entrepreneurs and backed by some of the most prestigious VCs in the ecosystem. We are a team of passionate data enthusiasts who love all things open source and we are on a mission to simplify the lives of data engineers, data scientists and analysts who are transforming the world with data.

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