

DAY-6

Mongodb backup and restore



What is Backup and Restore in MongoDB?

Backup and **restore** are essential data management operations that help protect your MongoDB data and recover it when needed.

✓ Backup in MongoDB

A **backup** is a copy of your database data at a specific point in time. It's used to:

- Prevent data loss
- Support disaster recovery
- Facilitate migrations or testing

Common Methods :

Mongodump (Logical backup)

create a json/bson snapshot of collection and documents.
good for smaller datasets and portability.

Filesystem Snapshot (Physical Backup):

Done at file system level (e.g LVM snapshot)
Best for large-scale or shared mongodb deployments.

Cloud Backup (MongoDB Atlas):

automated managed backup if using MongoDB Atlas.
supports point-in-time restores.

Backup MongoDB (Using `mongodump`)

```
mongodump --uri="mongodb://localhost:27017" --out=/path/to/backup
```

Example - dump a single DB:

```
mongodump --db=mydb --out=/backups/mongodump-2025-05-11
```

Example - dump with gzip:

```
mongodump --db=mydb --gzip --archive=/backups/mydb.gz
```

Options:

- `--uri`: Connection URI (can include user/password).
- `--db=<database>`: Dump only a specific database.
- `--collection=<collection>`: Dump only a specific collection.
- `--gzip`: Compress output.
- `--out`: Output directory.

Restore in MongoDB

A **restore** is the process of loading a backup into a MongoDB instance, often after:

Accidental data loss

Corruption

Migration or testing

Common Restore Tools:

1. **mongorestore:**

Loads data from a mongodump backup.

You can restore entire databases, collections, or even specific documents.

2. **Manual Restore from Filesystem:**

Requires stopping the MongoDB server and replacing data files.

Basic Command:

```
mongorestore --uri="mongodb://localhost:27017" /path/to/backup
```

Options:

- `--uri`: MongoDB connection string.
- `--drop`: Drops the collections before restoring.
- `--gzip`: If backup was gzipped.
- `--archive`: If using an archive file.
- `--db=<database>`: Restore to a specific database.

Example - restore full dump:

```
mongorestore /backups/mongodump-2025-05-11
```

Example - restore with gzip:

```
mongorestore --gzip --archive=/backups/mydb.gz
```

Example - drop and restore specific DB:

```
mongorestore --db=mydb --drop /backups/mongodump-2025-05-11/mydb
```

Note : mongodump and mongorestore do not capture user/role info from admin or config database by default .