# **Use Case** UC-003

Version 1.0

## **Revision History**

| Date | Author | Description of change |
| --- | --- | --- |
| 2023/10/11 | Yuan Hu | Created UC-003 |
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**Use Case**:

Backing up a database.

**Id**:

UC- 003

**Description:**

The administrators would like to keep the integrity and consistency of the database, so they log into the database, perform database backup, and store the back-up files for future usage.

**Level:**

Sub fuction

**Primary Actor**  
The Database Administrator

**Supporting Actors**

Database server

**Stakeholders and Interests**

Database administrator: Interested in ensuring system integrity and consistency.

Data analyst: Interested in a stable system that is responsive to impact and recover from them timely

**Pre-Conditions**

The database administrator has to log in the database.

**Post Conditions**

Success end condition

The database is fully backed up and the back-up file is ready to be deployed at any time.

Failure end condition:

The process of backing up is failed or terminated, there is no backup file produced.

Minimal Guarantee

Database administrator logged out the database without any changes.

**Trigger**

1.For data loss prevention - Database administrator back-up the database.

2.For migrations and upgrades - Database administrator back-up the database.

## **Main Success Scenario**

1. Database administrator logs into the database with credentials.
2. Database administrator performs a back-up process with correlated access.
3. Database administrator retrieves the back-up file for the process.

## **Extensions**

1a. Credentials rejected, go back to the login stage

2a. Access denied, an error message is return by the database server

## **Variations**

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**Frequency:**

Once a month

**Assumptions**

Database administrator has the correct credentials.

Database administrator is familiar with the database back-up process.

Database administrator has a secure container for back-up files.

## **Special Requirements**

1. The back-up process should be conducted after the stock market closes to insure integrity.
2. Back-up files should be stored in a secure container and should not be transmitted under insecure network conditions.

## **Issues**

How do we insure the back-up files keeping its integrity after the process?

## **To do**

Integrity check on the back-up files.

Redeploy the database using the back-up files generated from the use case.