

Data Load into Snowflake from Local System

1. Purpose

To load CSV machine downtime dataset from a local machine directly into a Snowflake table in a controlled and repeatable manner.

2. Prerequisites

- Snowflake access, sign in snowflake account
- Source file in **CSV UTF-8** format
- Data cleaned and validated in Excel

3. Prepare Source File

- Clean data in Excel
- Convert text dates to real dates

Fixed Date column Given date column is text “31-12-2021” value convert into date using formula “31-12-2021” =DATE(RIGHT(A2,4), MID(A2,4,2), LEFT(A2,2)) Then paste as value in next column delete previous two.

- Remove formulas, extra spaces, and invalid values
- Save file as **CSV UTF-8**

4. Procedure

1) Create Database, Schema and warehouse

The screenshot shows the Snowflake UI interface. On the left, there's a sidebar with 'My Workspace' containing files like 'MACHINE_DOWNTIME_SCRIPT.sql' and 'setup_cortex_sql.sql'. Below that is the 'Worksheets' section with a search bar and a log entry from '2026-01-11 5:52pm'. At the bottom is the 'Database Explorer' tab. The main area is a code editor titled 'Load sample data from AWS S3 with SQL'. It contains the following SQL script:

```
1 // Industrial Machine Downtime Analytics & Monitoring
2
3 CREATE DATABASE MACHINE_DB;
4 CREATE SCHEMA MACHINE_SCHEMA;
5 CREATE WAREHOUSE MACHINE_WH;
```

2) Create Target Table

```

CREATE OR REPLACE TABLE MACHINE_DOWNTIME_RAW (
    DATE                      DATE,
    MACHINE_ID                VARCHAR(50),
    ASSEMBLY_LINE_NO          VARCHAR(50),
    HYDRAULIC_PRESSURE_BAR   FLOAT,
    COOLANT_PRESSURE_BAR     FLOAT,
    AIR_SYSTEM_PRESSURE_BAR  FLOAT,
    COOLANT_TEMPERATURE_C    FLOAT,
    HYDRAULIC_OIL_TEMPERATURE_C FLOAT,
    SPINDLE_BEARING_TEMPERATURE_C FLOAT,
    SPINDLE_VIBRATION_M      FLOAT,
    TOOL_VIBRATION_M          FLOAT,
    SPINDLE_SPEED_RPM         INTEGER,
    VOLTAGE_VOLTS             INTEGER,
    TORQUE_NM                 FLOAT,
    CUTTING_KN                 FLOAT,
    DOWNTIME                  VARCHAR(30)
);

```

3) Load Data into Table

Open horizon CatLog of table and load data

The screenshot shows the Horizon CatLog interface for the `MACHINE_DOWNTIME_RAW` table. At the top, there's a navigation bar with the path `MACHINE_DB / MACHINE_SCHEMA / MACHINE_DOWNTIME_RAW`. To the right of the path are three buttons: `Describe Table`, `...`, and a prominent blue `Load Data` button, which is highlighted with a red box. Below the path, there's a status bar showing `Table`, `ACCOUNTADMIN`, `just now`, `0`, and `0.0B`. Underneath the status bar, there are tabs for `Table Details`, `Columns`, `Data Preview`, and `Copy History`. The `Table Details` tab is selected. On the left, there's a `Description` section with a text input field containing the placeholder `Write a description or Generate with Cortex`. On the right, there's an `Assigned contacts` section with a small info icon.

Check all dataset, schema and warehouse are correctly selected, then Browse file and click

Load Data into Table

• MACHINE_WH

MACHINE_DB.MACHINE_SCHEMA.MACHINE_D...


Drag and drop to upload files
 or

 or

File size limit: 250MB
Supported formats: CSV/TSV, json, orc, avro, parquet, xml

Select or create a database and schema

Schema **MACHINE_DB.MACHINE_SCHEMA**

Select or create a table

MACHINE_DOWNTIME_RAW

4) Validate Load

Validate all parameters, eg. header: Skip first line and all as shown image. Then load

File format
 Delimited Files (CSV or TSV)

Select existing or create in [Worksheets](#)

Learn more about format-specific configurations in [Snowflake Docs](#)

Header Skip first line

Field delimiter Comma (default)

Trim space True (default)

Field optionally enclosed by Double quotes (defa...

Replace invalid characters True (default)

Date format Auto* (default)

Time format Auto* (default)

Timestamp format Auto* (default)

Edit Schema

16 Table Columns (16 Matches)

#	FROM 1 FILE	TO MACHINE_DOWNTIME_RAW	DATA PREVIEW	STATUS
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> c1	<input checked="" type="checkbox"/> DATE	2021-12-31, 2021-12-31, ...	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> c2	<input checked="" type="checkbox"/> MACHINE_ID	Makino-L1-Unit1-2013, M...	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> c3	<input checked="" type="checkbox"/> ASSEMBLY_LINE_NO	Shopfloor-L1, Shopfloor-L...	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> c4	<input checked="" type="checkbox"/> HYDRAULIC_PRESSU...	71.04, 125.33, 71.12, 139....	Warning: Data types do...
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> c5	<input checked="" type="checkbox"/> COOLANT_PRESSU...	6.933724915, 4.9368918...	Warning: Data types do...
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> c6	<input checked="" type="checkbox"/> AIR_SYSTEM_PRES...	6.284964506, 6.1967325...	Warning: Data types do...
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> c7	<input checked="" type="checkbox"/> COOLANT_TEMPER...	25.6, 35.3, 13.1, 24.4, 4.1	Warning: Data types do...
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> c8	<input checked="" type="checkbox"/> HYDRAULIC_OIL_TE...	46, 47.4, 40.7, 44.2, 47.3	Warning: Data types do...
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> c9	<input checked="" type="checkbox"/> SPINDLE_BEARING...	33.4, 34.6, 33, 40.6, 31.4	Warning: Data types do...
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> c10	<input checked="" type="checkbox"/> SPINDLE_VIBRATIO...	1.291, 1.382, 1.319, 0.618, ...	Warning: Data types do...
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> c11	<input checked="" type="checkbox"/> TOOL_VIBRATION_M...	26.492, 25.274, 30.608, 3...	Warning: Data types do...



Successfully Loaded Data

Machine_Downtime_raw.csv → MACHINE_DB.MACHINE_SCHEMA.MACHINE_D...

2,500 rows were successfully inserted into the table.

[Generate SQL from table](#)

[View table details](#)

Data is successfully loaded from local CSV into Snowflake table and ready for downstream analytics.

5) Preview data

Database Explorer
HORIZON CATALOG

Databases

- > DEMO_DB
- > MACHINE_DB
 - > INFORMATION_SCHEMA
 - > MACHINE_SCHEMA
 - Tables
 - [MACHINE_DOWNTIME_RAW](#)
 - > PUBLIC
- > SNOWFLAKE
- > SNOWFLAKE_LEARNING_DB
- > SNOWFLAKE_SAMPLE_DATA
- > STREAMLIT_DB
- > USERS\$KSWATI9

Search

MACHINE_DB / MACHINE_SCHEMA / MACHINE_DOWNTIME_RAW

Table Details Columns Data Preview Copy History

• MACHINE_WH 100 of 2.5K Rows • Updated just now

	DATE	MACHINE_ID	ASSEMBLY_LINE_NO	HYDRAULIC_PRESSURE_BAR	COOLANT_PRESSURE_BAR
1	2021-12-31	Makino-L1-Unit1-2013	Shopfloor-L1	71.04	6.93372491
2	2021-12-31	Makino-L1-Unit1-2013	Shopfloor-L1	125.33	4.93689186
3	2021-12-31	Makino-L3-Unit1-2015	Shopfloor-L3	71.12	6.83941315
4	2022-05-31	Makino-L2-Unit1-2015	Shopfloor-L2	139.34	4.57438200
5	2022-03-31	Makino-L1-Unit1-2013	Shopfloor-L1	60.51	6.89318192
6	2022-03-31	Makino-L2-Unit1-2015	Shopfloor-L2	137.37	5.91835733
7	2022-03-31	Makino-L1-Unit1-2013	Shopfloor-L1	135.93	6.56033219
8	2022-03-31	Makino-L3-Unit1-2015	Shopfloor-L3	127.7151635	5.06070856
9	2022-03-31	Makino-L3-Unit1-2015	Shopfloor-L3	123.618456	5.07437970