# SCD Type 1 Implementation using Azure Data Factory

## Overview

Slowly Changing Dimension (SCD) Type 1 involves updating records in place when there is a change in the source data. It does not preserve any historical data.

## Initial Table Setup

Both tables (Emp and Scd1) initially contain the same data:

|  |  |
| --- | --- |
| id | Name |
| 1 | John |
| 2 | Joe |
| 3 | dane |

## Updated Emp Table

A change is made to the Emp table. The name of employee with id 1 is updated to 'JohnCena':

|  |  |
| --- | --- |
| id | Name |
| 1 | JohnCena |
| 2 | Joe |
| 3 | dane |

## Steps to Implement SCD Type 1 in Azure Data Factory

1. Create an Azure Data Factory (ADF) resource.
2. Create a new Mapping Data Flow.
3. Add a Source transformation and connect it to the updated 'Emp' table.
4. Add an 'Alter Row' transformation with upsert logic based on the 'id' column.
5. Add a Sink transformation and connect it to the 'Scd1' table.
6. Create a new pipeline.
7. Add a 'Data Flow' activity to the pipeline and connect it to the created data flow.
8. Debug and execute the pipeline.

## Final Output (Scd1 Table)

After pipeline execution, the 'Scd1' table reflects the updated data:

|  |  |
| --- | --- |
| id | Name |
| 1 | JohnCena |
| 2 | Joe |
| 3 | dane |