

**1. Consume any REST API and load the response to database.**

**2. Implement SCD type 6 for the below “EMPLOYEE\_Q2” table:**

ID	Name	City	Email	Update_Date
1001	Ahmed	Cairo	ahmed@mail.com	20-04-2023
1002	Alaa	Giza	alaa@mail.com	20-04-2023
1003	Samy	Cairo	samy@mail.com	20-04-2023

Notes:

1. The SCD fields are City and Email.
2. Read source data using Incremental Load.

**3. Load data to a table using versioning like below:**

3.1 Source table “EMPLOYEE\_Q3”

ID	Name	City	Email	Schedule_Date
1001	Ahmed	Cairo	ahmed@mail.com	20-04-2023
1002	Alaa	Giza	alaa@mail.com	20-04-2023
1003	Samy	Cairo	samy@mail.com	20-04-2023

3.2 Target table after first run on the same day

Emp_Key	ID	Name	City	Email	Insert_Date	Active_Flag	Version_No
1	1001	Ahmed	Cairo	ahmed@mail.com	20-04-2023	1	1
2	1002	Alaa	Giza	alaa@mail.com	20-04-2023	1	1
3	1003	Samy	Cairo	samy@mail.com	20-04-2023	1	1

### 3.3 Target table after second run on the same day

Emp_Key	ID	Name	City	Email	Insert_Date	Active_Flag	Version_No
1	1001	Ahmed	Cairo	ahmed@mail.com	20-04-2023	0	1
2	1002	Alaa	Giza	alaa@mail.com	20-04-2023	0	1
3	1003	Samy	Cairo	samy@mail.com	20-04-2023	0	1
4	1001	Ahmed	Cairo	ahmed@mail.com	20-04-2023	1	2
5	1002	Alaa	Giza	alaa@mail.com	20-04-2023	1	2
6	1003	Samy	Cairo	samy@mail.com	20-04-2023	1	2

### 3.4 Target table after first run on the next day (just change Schedule\_Date in the source data to simulate to next day)

Emp_Key	ID	Name	City	Email	Insert_Date	Active_Flag	Version_No
1	1001	Ahmed	Cairo	ahmed@mail.com	20-04-2023	0	1
2	1002	Alaa	Giza	alaa@mail.com	20-04-2023	0	1
3	1003	Samy	Cairo	samy@mail.com	20-04-2023	0	1
4	1001	Ahmed	Cairo	ahmed@mail.com	20-04-2023	0	2
5	1002	Alaa	Giza	alaa@mail.com	20-04-2023	0	2
6	1003	Samy	Cairo	samy@mail.com	20-04-2023	0	2
7	1001	Ahmed	Cairo	ahmed@mail.com	21-04-2023	1	1
8	1002	Alaa	Giza	alaa@mail.com	21-04-2023	1	1
9	1003	Samy	Cairo	samy@mail.com	21-04-2023	1	1

Notes:

1. Add new version as long as you are running on the same day and close all old records.
2. Start from version 1 again on the next day and so on.
3. Don't check for any change in the source data, load it as it is.