

Data Modelling Patterns

Different ways of representing History



Data History

The data history enables the organization:

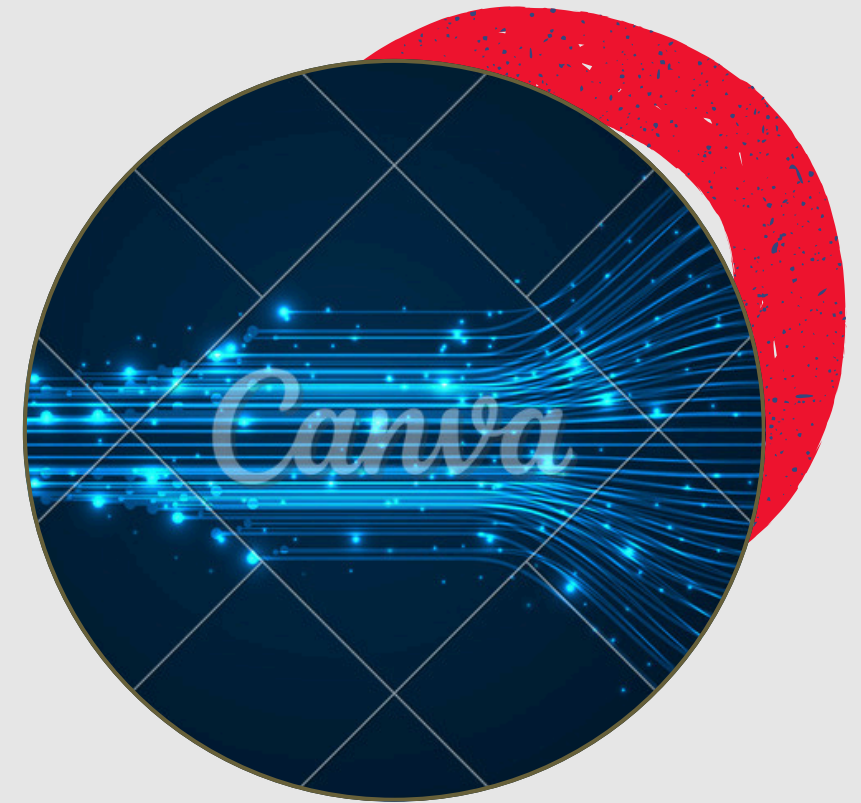
- 1.To meet compliance/audit requirements.
- 2.For Data Analysis and Reporting
- 3.To identify patterns and track performance.
- 4.To recover from accidental data loss or data corruption.



Two Approaches to model Historical Data



Use of Temporal Tables



Use of History Tables

Temporal Tables

This approach works on adding two date columns, “Effective From Date” and “Effective To Date” to each database table.

Id	DateOfAdmission	Diagnosis	EffectiveFromDate	EffectiveToDate
101	21-Jan-23	Fever	21-Jan-23	

Suppose the patient’s medical record is updated again. In that case, another new record is added to the table with the updated information, the current date in the “Effective From” column, and the previous record’s “Effective To” column is updated with the current date.

Id	DateOfAdmission	Diagnosis	EffectiveFromDate	EffectiveToDate
101	21-Jan-23	Fever	21-Jan-23	23-Jan-23
102	21-Jan-23	Rash	23-Jan-23	

History Tables

Approach is to store only the latest record in the transaction table while moving all old records to a separate history table. In this approach, every time a change is made, the old version of the data is copied to the history table.

“MedicalRecords” table:

ID	DateOfAdmission	Diagnosis	Date
101	21-Jan-23	Rash	23-Jan-23

“MedicalRecordsHistory” table:

ID	DateOfAdmission	Diagnosis	Date
101	21-Jan-23	Fever	21-Jan-23