

C. Our Proposed Model

My proposed Model with the snowflake schema consists of 3 major components:

1. Data source (Patient Satisfaction and Clinical databases, healthcare datasets)
2. Data Analytics
3. Representation of data.

In these elements, our proposed design model will integrate and represent information from Analytical datasets, enable versatile analysis queries, and supply precise answers at an acceptable level of comprehension. The snowflake model epitome is constructed on prime of the open-sourced data warehouse for information representation.

There are some advantages of our proposed model features like stability facing analytics data and significant traffic—and blessings of our design by exploitation properties, classes, and also the web-based open-source system will be absolutely tending to clinical analytical reports. Once the information of various datasets is extracted, our proposed model provides a platform for representation and an open-source web analytics tool.

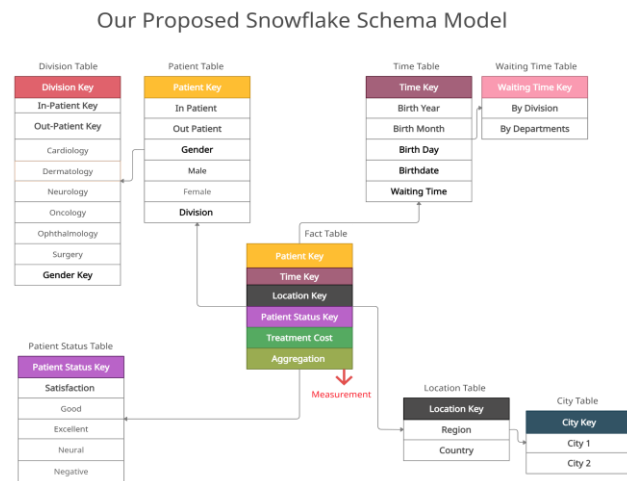


Fig1: Our Proposed Snowflake Schema Model

Our proposed model is a web-based analytical tool for improving data analytics efficiency, accuracy, and scalability. Two levels of instructions are appropriate for our model expansion:

Clinical Data Analytical Representation, Patient Satisfaction, and Clinical Healthcare for aggregating patients, cost, and observation with visual representation, we have produced a web-based Patient Satisfaction and Clinical Healthcare data analytics tool.

At the clinical data analytics level, new healthcare datasets are added, more types of knowledge are identified for target users, and a systematic quality assurance process is used to assure metadata quality.

Reports, Statistics, Query, Data mining and automated methods to extract knowledge, good functionalities to compare similar datasets, and collaborative features, such as Clinical forums that allow users to help each other and suggest healthcare clinical datasets, are all examples of data representation at the data level.

So, we have been motivated to select the Snowflake model for DBMS Query.

TABLE 4: Methodology and Design Perspective Healthcare Data Analytics.

Rf	Author	Methodology	Design	Backup	Security
[10]	Nicolas	No	Top-Down	No	Yes
[09]	Iai	Yes	Top-Down	Yes	Yes
[11]	Joh	Yes	Top-Down	No	No
[12]	Lekha	Yes	Top-Down	No	No
[13]	Kislaya	Yes	Top-Down	Yes	Yes
[14]	Christine	No	Top-Down	No	Yes
[15]	Nicolas	No	Top-Down	No	No
[16]	Barrett	No	Top-Down	No	No

TABLE 5: Healthcare Data Analytical Tools and Clinical Data Perspective

Rf	Data			ETL Tools	Purpose		
	Availability	Privacy	Quality		Admin	Manager	Res
[10]	Y	Y	Y	N/A	Y	Y	Y
[09]	Y	Y	Y	ODI	Y	Y	Y
[11]	Y	Y	Y	SSIS	Y	Y	Y
[12]	Y	N	N	N/A	Y	Y	Y
[13]	Y	Y	Y	N/A	Y	Y	Y
[14]	Y	Y	Y	i2b2	Y	Y	Y
[15]	N	N	N	AT	Y	Y	Y
[16]	Y	Y	Y	N/A	Y	Y	Y

D. Our Patient Satisfaction and Healthcare data Process

The patient and clinical healthcare data analytics design includes three levels of data coarseness from oriented data used in generic reports to detailed entry-level information, like hospital discharges. Besides, five levels of patient experience for satisfaction data are most implemented to build in vision and strategy.

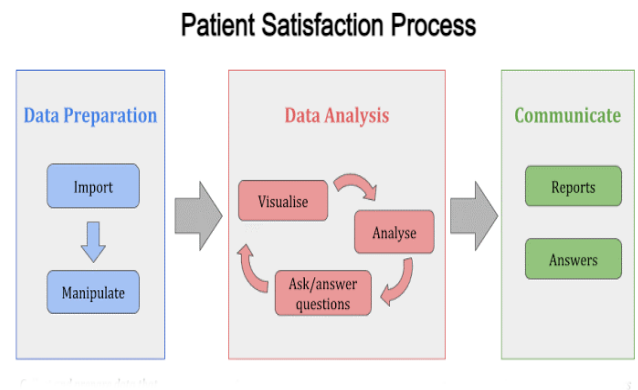


Fig 2: Patient Satisfaction Data Process