

The background is a gradient from dark purple at the top to deep blue at the bottom, speckled with white dots resembling stars. On the left side, there are several concentric circular patterns. One large circle has a scale from 140 to 260 in increments of 10, with tick marks. Other circles have arrows indicating clockwise or counter-clockwise rotation. Some circles are solid, while others are dashed.

# A4DATA

DATABASE

# WHAT IS A4DATA

## Technical Definition

- ◆ Atomized data creation and storage is done in A4Data. All the functions are executed in natural language
- ◆ Uses NLP

# WHAT IS A4DATA

## Technical Definition

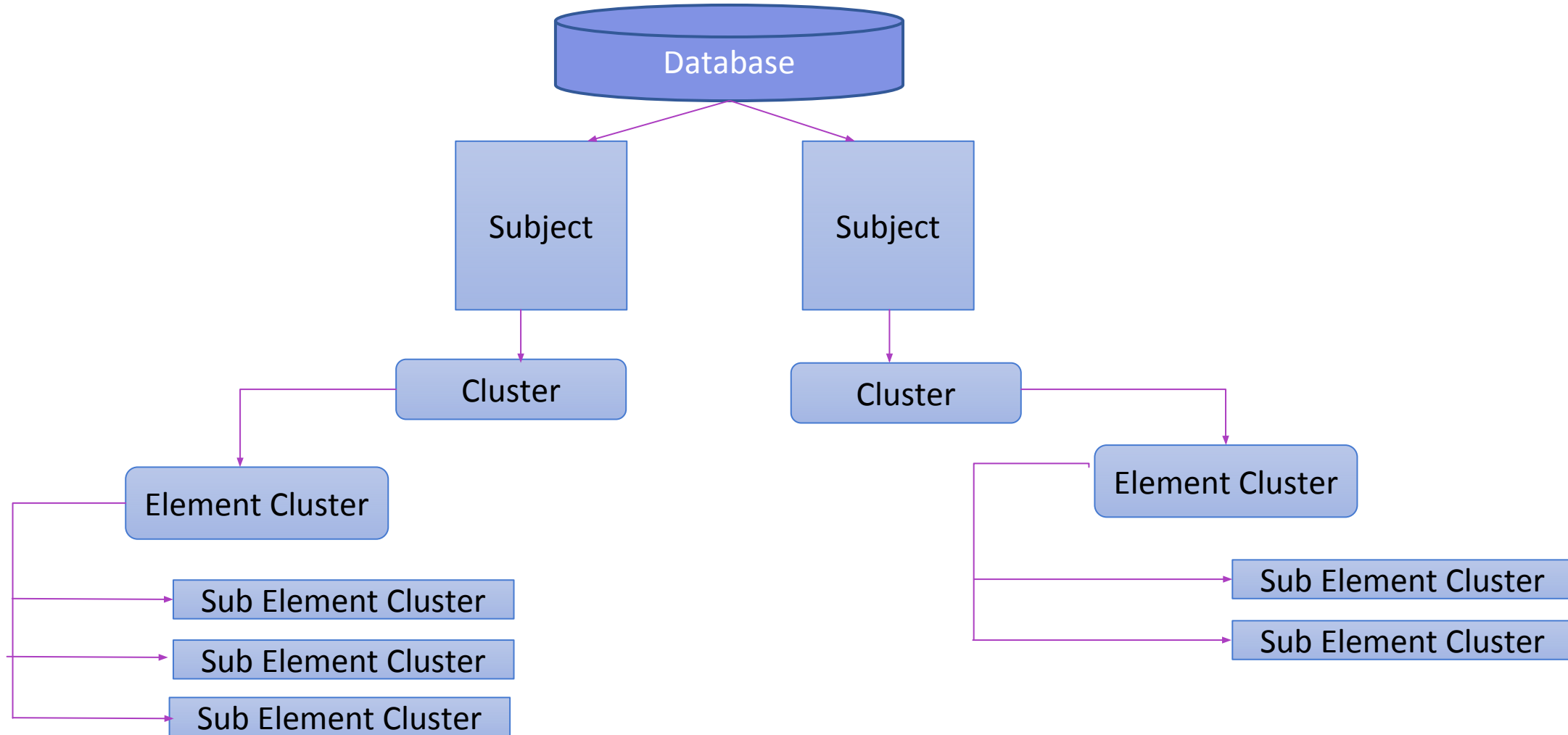
- ◆ In A4 data is also categorized as **Dimension, Fact, Unary, Link, GIS and LOBs**
  - ◆ Dimension categories are used to represent a domain of fixed values that have data type of byte, short, Integer. -  
. For e.g. List of states, List of cities (that are already pre-defined)
  - ◆ Fact data category supports the data types of Byte, Short, Integer, Float, Long, Double, Decimal and String. For e.g. Value that are infinite...for e.g. date, annual salary
  - ◆ Complex data category supports the date types where it is sub-divided into Day, Month and Year. Sub-divided into Day, Month and Year.
  - ◆ GIS data category supports points, lines, line strings, polygons.
  - ◆ LOBS data category supports CLOBs and BLOBs

# WHAT IS A4DATA

## Business Definition

- ◆ All the functions are executed using Natural Language.
- ◆ Gives the ability to the user to find out Sum, Difference, Average, Mean, Minimum, Maximum.
- ◆ For ex: One could ask
  - ◆ What is the total annual salary of customers in Plano?
  - ◆ How many customers live in Plano?
  - ◆ How many customers are born in June 1990?
- ◆ Displays the databases in Sunburst format
- ◆ Query performance exceeds any database in the industry
- ◆ Security
- ◆ Universalized for multiple data types
- ◆ Supports structured, semi-structured/unstructured data

# WHAT IS A4 DATA



# A4DATA VS Regular Database

## A4DATA

- A4Data Structures Hierarchy
  - Database -->Subject -->Cluster -->Element Cluster -->Sub Element Cluster -->
- Interact with an A4 database Using NLP a user asks for data matching certain conditions (List of customers living in Plano)
- Data is represented as rows and columns. However columns can be sub divided.
- Data is also categorized as Dimension, Fact, Unary, Link, GIS and LOBs

## Regular Database

- Regular Database Structures Hierarchy
  - Database -->Schema -->Table -->Column
- Query a regular database Using SQL by using Select <column list> from <Table(s)> Where <Where condition> Join <Tables with join criteria>
- Data is stored as rows and columns