

# WEEK 4 CHALLENGE POWER BI

## 1. Explain Normalization and the usage?

**ANS:**

- Process of organizing the database to avoid
  - Data redundancy
  - Anomalies (insertion, update & deletion)
- It commonly used to
  - **Eliminate redundant data** to decrease table sizes and improve processing speed & efficiency
  - **Minimize errors and anomalies** from data modifications (inserting, updating or deleting records)
  - **Simplify queries** and structure the database for meaningful analysis.

This means to adjust data that has been collected using different scales into a common reference scale, or in other words to convert raw data into rates to make more meaningful comparisons.

The main use of normalization is to utilize in order to remove anomalies that are caused because of the transitive dependency. Normalization is to minimize the redundancy and remove Insert, Update and Delete Anomaly. It divides larger tables into smaller tables and links them using relationships.

## 2. Explain Data Table Types?

**ANS:**

There are two types of data table in a data model

1. Lookup(Dimensions) Table
2. Fact(Data) Table

### 1...Lookup (Dimension) tables:

They provide descriptive, often text-based attributes about each dimension in a table.

### 2..Fact (Data) tables:

They contain number or values, with ID or “key” columns that can be used to create table relationships

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### 3. What is Primary key and Foreign Key?

**ANS:**

#### 1.Primary Key :

- Uniquely identifies each row in table.
- Only one primary key is allowed in a table.
- Available only in the lookup table

#### 2.Foreign Key :

- A Column or group of columns in a relational database table that provides a link between data in two tables.
- More than one foreign key is allowed in a table.
- Available only in data table.

### 4. Explain Table Schema?

**ANS:**

A table schema is a named schema for a set of Query Tables that completely defines the structure of those Query Tables, and ensures that all Query Tables in the set are identically defined. A table schema includes the table structure of a Query Table, as well as its primary index and secondary indices (if any).

You can turn on schema view by selecting Schema view in the View tab.

### 5. Create Active & Inactive Relationships using Manage Relationships

**ANS:**

*...Please refer as below image.....*

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