We can access MSBI - SSAS OLAP Databases in Power BI.

OLAP Databases are used to store Big Data, they maintain pre-computed calculations (Aggregations).

The OLAP Databases store data in the form of "CUBES"

Every Cube as :

1. Measures : Actual Items of Analysis [Ex: Total Sales]

2. Attributes : Factors influencing the Analysis [Ex: Year, Quarter..]

3. Measure Groups : Entities (Tables) that contain Measures

4. Dimensions : Entities (Tables) that contain Attributes

5. Members : Values of Measures & Attributes

OLAP Databases and Cubes are designed & accessed by using :

1. **MDX** : Multidimensional Expression Language

2. **DAX** : Data Analysis Expression Language

For Power BI Analytics: We need to use at least one Measure and at least one Attribute.

**Access Options:**

1. Import : OLAP Cube Data is loaded to Power BI

Modeling

Additional Data Sources can be added

Entire Cube (Selected Items) are considered as a single Table

**2. Connect LIVE**  : A LIVE Connection is established with OLAP Cube

No Modeling

No Additional Data Sources can be added to Report

Each Entity is a Table [**Tabular Mode**]

Practice Items [Optional]

Step 1: Design a Cube with your Local Data Sources. Deploy to SSAS Server

Step 2: Lunch SSMS: Verify the Connections to OLAP Server, Database, Cube

Step 3: Launch Power BI: Get Data > Analysis Server > Specify Connection Details > Mode >

Select Measure(s), Attribute(s) > Load

Note 1: Relationships cannot be managed in Power BI

Note 2: Mixed Storage Mode is not supported in Power BI

IMPORT MODE : ENTIRE CUBE IS TAKEN AS A SINGLE ENTITY

SUPPORTS IMPORT MODE FOR OTHER ENTITIES & DATASETS

LIVE : EVERY DIMENSION AND MEASURE GROUP IS AN ENTITY

OTHER DATASETS ARE NOT SUPPORTED

NO SUPPORT FOR POWER QUERY, RELATIONSHIP MANAGEMENT, GROUPING, BINNING, HIERARCHIES, DAX COLUMNS.