**Introduction to Power BI**

1. **Understanding the Power BI Tools**
2. **Installing Power BI Desktop and Connecting to Data**
3. **An Overview of the workflow in Power BI Desktop**
4. **Introducing the different views of the Data Model**
5. **Taking a close look at the query editor interface**

**Introduction to the Query Editor**

1. **What is Query Editor**
2. **Connecting Power BI Desktop to the different sources**
3. **Editing Rows**
4. **Editing Columns**
5. **How to Append two sources data (like Union in SQL)**
6. **How to Merge two sources data (Like Joins in SQL)**
7. **How many different types of Joins available in Power BI**
8. **How to Replace Values**
9. **Formatting Data**
10. **Pivoting and Unpivoting Columns**
11. **Splitting Columns**
12. **Creating Groups for our data sets**

**Creation of Star Schema Database Model**

1. **Creating the Dimension tables**
2. **Creating the Fact tables**
3. **Difference between the Duplicating and Referencing Data sets**
4. **How to create new table by entering data manually**
5. **Creating an Index column**
6. **Duplicating Columns**
7. **How to Create Conditional Columns**
8. **How to perform basic Mathematical Operations**
9. **How to Improve performance and Loading data into Data Model**

**Working on Data Model: Data and Relationship View**

1. **Query Editor vs. Data Model**
2. **How to create Relationships between the tables**
3. **How to Create Many to Many relationships**
4. **Understanding Cardinality and Cross filter directions while creating relationships**
5. **Difference between M-Language and DAX- Functions**

**DAX Functions**

1. **DAX- Basic Information**
2. **Aggregate Functions**

* **Sum**
* **Average**
* **Divide**
* **SUMX**

1. **Count Functions**

* **Count**
* **CountDistinct**
* **CountA**
* **CountRows**

1. **Logical Functions**

* **Calculate**
* **IF Else**
* **IsBlank**
* **IsError**
* **IsFiltered**

1. **Intermediate Level Dax functions**

* **Filter**
* **ALL**
* **ALL Except**
* **ALL Selected**
* **Concatenate**
* **CombineValues**
* **Related**
* **Lead**
* **Lag**
* **HasOneValue**
* **SelectedValue**
* **Rank functions**
* **Running Total**
* **Summarize**
* **Group By**
* **Cross Join**
* **Union**
* **Lookup Value**
* **Calculated Column**
* **Calculated Table**

**37.Rank Functions**

* **Rank**
* **Dense Rank**
* **Rank Partitions**

**38.Time -Intelligence DAX**

* **DateAdd**
* **DateDiff**
* **DatesBetween**
* **DateYTD**
* **DateMTD**
* **TotalYTD**
* **TotalMTD**
* **Week Day Name**
* **Month Name**
* **Parallel Period**
* **Same period last year**
* **MonthCloserAmount**
* **MonthBeginAmount**

**Report view to Visualize our Results**

1. **Understanding the Interface of the Report View**
2. **Creating Stacked Column charts, Cards, Line charts, Shape charts, Cone**
3. **Creating Combined Column and Line chart with multiple Y-axis**
4. **Creating Slicers, Map Reports, Bubble charts**
5. **Editing Interactions and Adding Tool tips**
6. **Creating Hierarchies**
7. **Drill down and Drill through reports**
8. **WaterFall , TreeMaps and Table Charts**

**Filters and Parameters**

1. **Visual Level Filters**
2. **Page Level Filters**
3. **Report Level Filters**
4. **How to pass parameters**
5. **Query Parameters**
6. **Report Paremeters**

**Variables creation and Usage**

**Power BI Service and Power BI Mobile**

1. **Why we need Power BI Service**
2. **Logging into Power BI Service**
3. **Importing our data from Power BI Model into Power BI Service**
4. **How to Create new reports using Data Sets in P.BI Service**
5. **How to Edit the Reports**
6. **How to Create Dash Boards**
7. **How to Install Personal and on-Premise Data Gateways**
8. **How to refresh the data using DATA Gateways**
9. **Creating APPS Workspace**
10. **Collaborating the Reports with your Colleagues**
11. **Sharing the reports in Web Browser**
12. **Installing and Understanding the POWER BI Mobile App**

**Connecting to the Different Data Sources**

1. **Importing the data from SQL Server database**
2. **Importing the Jason Data**
3. **Importing the REST API Data**
4. **Importing the data from SSAS Cubes**
5. **Importing the data from WEB Browser and other data sources**
6. **Importing the Data from XML Files**
7. **Importing the data by writing SQL Queries and Stored Procedures**

**Creating Custom Visuals**

1. **Using Data Driven Documents**
2. **Creating and Using a custom visual**
3. **Connecting Shapes to Data**
4. **Dynamic Coloring and Making Bars Selectable (Cross Visual)**
5. **Packaging the Custom Visuals**