**Power BI Course**

**Power BI Introduction**

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     Microsoft's Power BI is an interactive data visualization software program with a main emphasis on business intelligence. The Microsoft Power Platform includes it. Power BI is a group of software services, applications, and connections that combine to transform disparate data sources into coherent, engaging visuals and interactive insights.

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Power BI Installation

Power BI Desktop

Data Imports into Power BI

Views in Power BI

Building a Dashboard

Publishing Reports

Creating Dashboard in Power BI

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**Power BI Components**

Power Query

Power Pivot

Power View

Power Map

Power BI Service

Power BI & QA

Data Management Gateway

Data Catalog

Getting Data using Power BI

     An Excel workbook or CSV file can have rows of data manually entered, or you can connect to an external data source to query and load data into your file.  
Once you have a file with some data, you can import it as a dataset into Power BI . For Power BI to import data from Excel workbooks, the data must be in a table or data model.

Connect to Data Sources Clean and Transform using Query Editor Advanced Data sources and transformations

Cleaning irregularly formatted data.

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**Power Query**

**Importing Data into Power BI**

Import Data from Excel File

Import data from Text - Tab delimited file

Import data from CSV delimited file

Import data from Access files

Loading data to data model and file path changes

**Transformation in built in Query ribbon**

In built Column Transformation

In built Row transformations

Filtering selected rows in Power Query

**Other in built transformation**

Text Transformation

Numbers transformation

Date transformation

Conditional Columns

**Multiple data source / queries**

Introduction to Append / Duplicate / Reference Queries

Append multiple files individually with different queries

Importing multiple files from a folder using single query

Append the Data from multiple excel sheets and multiples files in folder

Duplicate / Reference queries - Differences and usage

**Merge Queries / Multiple Joins in Power Query**

Left, Right and Outer joins

Left, Right Anti joins

Cross Joins / Cartesian Product using other functions

Using Parameters

Case study: Payroll Data

Custom Functions, Conditional Statement

**Creating Data Models**

     Data models are made with Power BI utilizing this tool. It gives data administrators and analysts the resources  
to create fluid table associations. As a result, you may use enhanced data to create interactive, intricate, and perceptive graphics and reports.

How Data Model Looks Like

Database Normalization

Data Tables vs Lookup Tables

Primary Key vs Foreign Key

Relationships vs Merged Table

Creating Table Relationships

Creating Snowflake Schemas

Managing & Editing Relationships

Active vs Inactive Relationships

Relationship Cardinality

Many to Many

One to One

Connecting Multiple Data Tables

Filter Flow

Two Way Filter

Two Way Filters Conditions

Hiding Fields from Report View

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**Power View**

Area Chart

Bar chart

Card

Clustered Bar chart

Clustered Column chart

Donut chart

Funnel chart

Heat Map

Line Chart

Clustered Column and Line chart

Line and Stacked Column chart

Matrix

Multi-Row Card

Pie chart

Ribbon chart

Stacked Area char

Scatter Chart

Stacked Bar chart

Waterfall chart

Map

Filled Map

KPI

GAUGE CHART

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**Power BI Filters**

Slicer Basic

Filters

Advanced Filters

Top N Filters

Filters on Measures

Page Level Filters

Report Level Filters

Drill through Filters

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**Power Bi Dax**

Purpose of Data Analysis Expressions (DAX)

Scope of Usage with DAX. Usability Options

DAX Context: Row Context and Filter Context

DAX Entities: Calculated Columns and Measures

DAX Data Types: Numeric, Boolean, Variant, Currency

Date time Data Type with DAX. Comparison with Excel

DAX Operators & Symbols. Usage. Operator Priority

Parenthesis, Comparison, Arithmetic, Text, Logic

DAX Functions and Types: Table Valued Functions

Filter, Aggregation and Time Intelligence Functions

Information Functions, Logical, Parent-Child Functions

Statistical and Text Functions. Formulas and Queries

Syntax Requirements with DAX. Differences with Excel

Naming Conventions and DAX Format Representation

Working with Special Characters in Table Names

Attribute / Column Scope with DAX – Examples

Measure / Column Scope with DAX – Examples

YTD, QTD, MTD Calculations with DAX

DAX Calculations and Measures

Using TOPN, RANKX, RANK.EQ

Computations using STDEV & VAR

SAMPLE Function, COUNTALL, ISERROR

ISTEXT, DATEFORMAT, TIMEFORMAT

Time Intelligence Functions with DAX

Data Analysis Expressions and Functions

DATESYTD, DATESQTD, DATESMTD

ENDOFYEAR, ENDOFQUARTER, ENDOFMONTH

FIRSTDATE, LASTDATE, DATESBETWEEN

CLOSINGBALANCEYEAR, CLOSINGBALANCEQTR

SAMEPERIOD and PREVIOUSMONTH, QUARTER

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**Power Bi Service**

Introduction to Power BI Service

Setting Up Dashboards

Set up Alerts and Subscriptions

Getting Insight from your Data

Setting up the Mobile View

Practical Activity - Natural Language Questions

Power BI Security, Workspaces and Refresh

Introduction to Power BI Security, Workspaces and Refresh

Data Gateways

Row Level Security

App Workspaces

Publishing Apps

Power BI Security, Workspaces and Refresh

60 days free license to everyone for Power BI Service.

**Project**

**Power Bi Material and Interview Questions**