

---

# Power BI Assignment 2

## **1.Explain the advantages of Natural Queries in PowerBi with an example?**

### **Advantages:**

#### **1. User-Friendly:**

- Natural Queries make it easy for users to interact with data using everyday language, reducing the learning curve for non-technical users.

#### **2. Intuitive Exploration:**

- Users can explore data intuitively by asking questions and getting immediate visual responses, fostering a more interactive and exploratory approach.

#### **3. Accessibility:**

- Natural Queries enhance accessibility by allowing users to access information without the need for complex programming or SQL queries.

**Example:** A user might ask, "Show me the sales trends by region," and Power BI would generate a visual representation of sales trends by region.

## **2.Explain Web Front End(WFE) cluster from Power BI Service Architecture?**

Power BI Service Architecture:

### **Web Front End (WFE) Cluster:**

**Definition:** The Web Front End (WFE) Cluster in Power BI Service Architecture is responsible for handling user requests, managing authentication, and serving web pages to users.

### **Functions:**

1. **User Interface:** Handles the user interface components visible in the web browser.
-

2. **User Authentication:** Manages user authentication and authorization.
3. **Requests Handling:** Receives and processes user requests for reports, dashboards, and other Power BI content.

### 3.Explain Back End cluster from Power BI Service Architecture?

#### Back End Cluster:

**Definition:** The Back End Cluster in Power BI Service Architecture handles the data processing, querying, and report generation tasks.

#### Functions:

1. **Data Processing:** Processes and transforms data based on user queries and report requirements.
2. **Query Execution:** Executes queries against underlying data sources.
3. **Model Refresh:** Manages data model refreshes and updates.

### 4.What ASP.NET component does in Power BI Service Architecture?

#### ASP.NET Component:

In Power BI Service Architecture, the ASP.NET component is part of the Web Front End (WFE) cluster and is responsible for handling web application requests and rendering pages for users.

### 5.Compare Microsoft Excel and PowerBi Desktop on the following features:

#### Comparison: Microsoft Excel vs.

#### Power BI Desktop

#### Data Import:

- **Excel:** Import data from various sources but may require manual steps.
- **Power BI Desktop:** Streamlined data import from various sources with better integration.

---

### Data Transformation:

- **Excel:** Limited data transformation capabilities compared to Power BI Desktop.
- **Power BI Desktop:** Robust data transformation features with Power Query.

### Modeling:

- **Excel:** Basic data modeling features.
- **Power BI Desktop:** Advanced data modeling with relationships, measures, and DAX expressions.

### Reporting:

- **Excel:** Traditional reporting features.
- **Power BI Desktop:** Rich, interactive, and dynamic reporting with visuals and dashboards.

### Server Deployment:

- **Excel:** Limited to local files; sharing involves emailing files.
- **Power BI Desktop:** Cloud-based sharing and collaboration through Power BI Service.

### Convert Models:

- **Excel:** Models are not easily convertible to Power BI models.
- **Power BI Desktop:** Models can be easily migrated to Power BI Service.

### Cost:

- **Excel:** Part of Microsoft Office suite; no additional cost for basic usage.
- **Power BI Desktop:** Free for individual users; Power BI Pro or Premium licenses required for collaboration and advanced features.

## 6.List 20 data sources supported by Power Bi desktop.

### 20 Data Sources Supported by Power BI Desktop:

1. Excel Workbook
  2. SQL Server Database
  3. SharePoint List
  4. Azure SQL Database
  5. Oracle Database
  6. Web
  7. Folder
-

- 
8. JSON
  9. CSV
  10. OData Feed
  11. SharePoint Online List
  12. Dynamics 365
  13. Salesforce
  14. Hadoop File (HDFS)
  15. Active Directory
  16. Exchange
  17. MySQL Database
  18. Teradata Database
  19. Facebook
  20. Google Analytics

