Power BI Assignment 2

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

* [As part of our series on natural language query (NLQ), this blog details 5 benefits of using Guided NLQ, and how it differs from search-based NLQ to bring users true self-service BI.](https://www.yellowfinbi.com/blog/natural-language-query-5-benefits-of-guided-nlq#As_part_of_our_series_on_natural_language_query_NLQ_this_blog_details_5_benefits_of_using_Guided_NLQ_and_how_it_differs_from_search-based_NLQ_to_bring_users_true_self-service_BI)
* [Benefit #1 – Guided NLQ is a unique self-service BI experience](https://www.yellowfinbi.com/blog/natural-language-query-5-benefits-of-guided-nlq#Benefit_1_-_Guided_NLQ_is_a_unique_self-service_BI_experience)
* [Benefit #2 – Every question is understood by Guided NLQ](https://www.yellowfinbi.com/blog/natural-language-query-5-benefits-of-guided-nlq#Benefit_2_-_Every_question_is_understood_by_Guided_NLQ)
* [Benefit #3 – Guided NLQ makes it simple to ask complex questions](https://www.yellowfinbi.com/blog/natural-language-query-5-benefits-of-guided-nlq#Benefit_3_-_Guided_NLQ_makes_it_simple_to_ask_complex_questions)
* [Benefit #4 – Guided NLQ is integrated throughout Yellowfin](https://www.yellowfinbi.com/blog/natural-language-query-5-benefits-of-guided-nlq#Benefit_4_-_Guided_NLQ_is_integrated_throughout_Yellowfin)
* [Benefit #5 – It’s easy to embed Guided NLQ into your applications](https://www.yellowfinbi.com/blog/natural-language-query-5-benefits-of-guided-nlq#Benefit_5_-_Its_easy_to_embed_Guided_NLQ_into_your_applications)
* [Why Guided NLQ is a differentiated, future-proof solution](https://www.yellowfinbi.com/blog/natural-language-query-5-benefits-of-guided-nlq#Why_Guided_NLQ_is_a_differentiated_future-proof_solution)
* [See more: Guided NLQ in action](https://www.yellowfinbi.com/blog/natural-language-query-5-benefits-of-guided-nlq#See_more_Guided_NLQ_in_action)
* [You may also like:](https://www.yellowfinbi.com/blog/natural-language-query-5-benefits-of-guided-nlq#You_may_also_like)
* [How to Analyze Sales Performance by Moving Total Using Yellowfin Z Chart](https://www.yellowfinbi.com/blog/natural-language-query-5-benefits-of-guided-nlq#How_to_Analyze_Sales_Performance_by_Moving_Total_Using_Yellowfin_Z_Chart)
* [How to Visualize Open Data with Yellowfin](https://www.yellowfinbi.com/blog/natural-language-query-5-benefits-of-guided-nlq#How_to_Visualize_Open_Data_with_Yellowfin)
* [Traditional BI vs Self-Service Analytics: What’s the Difference?](https://www.yellowfinbi.com/blog/natural-language-query-5-benefits-of-guided-nlq#Traditional_BI_vs_Self-Service_Analytics_Whats_the_Difference)
* [Building Custom ITSM Dashboards for BMC Remedy](https://www.yellowfinbi.com/blog/natural-language-query-5-benefits-of-guided-nlq#Building_Custom_ITSM_Dashboards_for_BMC_Remedy)
* [Extending BMC Smart Reporting to Yellowfin BI: Webinar Recap](https://www.yellowfinbi.com/blog/natural-language-query-5-benefits-of-guided-nlq#Extending_BMC_Smart_Reporting_to_Yellowfin_BI_Webinar_Recap)
* [How To Build A High-quality BI Dashboard With The Best Software Test Manager](https://www.yellowfinbi.com/blog/natural-language-query-5-benefits-of-guided-nlq#How_To_Build_A_High-quality_BI_Dashboard_With_The_Best_Software_Test_Manager)

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

The WFE cluster uses Azure AD to authenticate clients, and provide tokens for subsequent client connections to the Power BI service. Power BI uses the Azure Traffic Manager (Traffic Manager) to direct user traffic to the nearest datacenter. Traffic Manager directs requests using the DNS record of the client attempting to connect, authenticate, and to download static content and files. Power BI uses the **Azure Content Delivery Network** (CDN) to efficiently distribute the necessary static content and files to users based on geographical locale.

The Power BI service is built on Azure, Microsoft's cloud computing infrastructure and platform. The architecture of the Power BI service is based on two clusters:

* The Web Front End (WFE) cluster. The WFE cluster manages the initial connection and authentication to the Power BI service.
* The Back-End cluster. Once authenticated, the Back-End handles all subsequent user interactions. Power BI uses Azure Active Directory (Azure AD) to store and manage user identities. Azure AD also manages data storage and metadata using Azure BLOB and Azure SQL Database, respectively.

1. **Explain Back End cluster from Power BI Service Architecture?**

The back-end cluster manages datasets, storage, reports, visualizations, data connections, data refreshing, and other services in Power BI. At the cluster, web clients have only two points to interact with the information, i.e., Azure API Management and Gateway Role.

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1. **What ASP.NET component does in Power BI Service Architecture?**

* ASP.NET is used in the Power BI Service architecture to build and host web applications that provide various services, such as data visualization, report generation, and data exploration. Some of the ASP.NET components used in Power BI Service architecture include:
  + ASP.NET Core: This is a cross-platform, open-source framework used to build web applications that can run on Windows, Linux, and macOS. It provides a set of libraries and tools for building scalable and high-performance web applications.
  + ASP.NET Web API: This is a framework used to build RESTful web services that can be consumed by other applications. It provides a set of libraries and tools for building APIs that can be used to access data and functionality in Power BI Service.
  + ASP.NET Identity: This is a framework used to manage user authentication and authorization in web applications. It provides a set of libraries and tools for implementing authentication and authorization features in Power BI Service.
  + ASP.NET MVC: This is a framework used to build web applications using the Model-View-Controller (MVC) architectural pattern. It provides a set of libraries and tools for building web applications that can handle complex user interfaces and data interactions.
* Overall, ASP.NET is an essential component in the Power BI Service architecture, providing the necessary tools and libraries to build and host web applications that deliver the core functionality of the service.

1. **Compare Microsoft Excel and PowerBi Desktop on the following features:**



1. **List 20 data sources supported by Power Bi desktop.**
2. Excel
3. Text/CSV
4. XML
5. JSON
6. Folder
7. PDF
8. SharePoint folder
9. Power BI datasets
10. Power BI dataflows
11. Microsoft Dataverse
12. Power Platform dataflows (Beta)
13. Web
14. SharePoint list
15. Active Directory
16. Microsoft Exchange
17. Python script
18. ODBC
19. Automation Anywhere (Beta)
20. MicroStrategy for Power BI
21. Paxata
22. Siteimprove
23. SurveyMonkey (Beta)
24. Blank Query