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| A picture containing drawing, stop, room  Description automatically generated | Business Intelligence  Practical #1 | | |
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| **Subject/Course:** | **Business intelligence** | | |
| **Topic** |  | | |
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| **What is Power BI?** | | | |
| * Microsoft Power BI is a data visualization platform used primarily for business intelligence purposes. Designed to be used by business professionals with varying levels of data knowledge, Power BI’s dashboard is capable of reporting and visualizing data in a wide range of different styles, including graphs, maps, charts, scatter plots, and more. Power BI's "AI Insights" functionality, meanwhile, uses artificial intelligence to find insights within data sets for users. * Power BI itself is composed of several interrelated applications: Power BI Desktop, Pro, Premium, Mobile, Embedded, and Report Server. While some of these applications are free-to-use, paid subscriptions to the pro and premium versions provide greater analytics capabilities. * Power BI is also a part of Microsoft’s Power Platform, which includes Power Apps, Power Pages, Power Automate, and Power Virtual Agents. Created as “low-code tools,” these applications help businesses analyze and visualize data, design business solutions, automate processes, and create no-code chatbots. | | | |
| **What are the components of Power BI?** | | | |
| There are 8 Components of Business Intelligence:   1. **Power Query:**  * Power Query is one of the important components of Power BI. * This can be included in your Excel or can be used as a component of the Power BI Desktop. * Using Power Query, you can delete data from numerous data sources and extract data from a wide range of different databases like Oracle, SQL Server, MySQL, and other different databases. * You can also fetch data from records like text files, CSV files, or Excel files.  1. **Power Pivot:**  * Power Pivot is a data modeling and calculation engine. It is used for modeling simple and complex data. * In Power Pivot, you can set or create relationships between different tables and calculate values that can be viewed in Pivot tables. * It provides you with a huge space to create your design. * The language used by Power BI Pivot is Data Analysis Expression (DAX), which is a strongly functional language, and all your calculations are done here.  1. **Power View:**  * Power View is the fundamental data visualization component of Power BI. * It is an interactive component that connects to data sources and retrieves metadata that can be utilized for data analysis. * There are many blueprints for visualization in the Power View lists. * With Power View, you can filter data for each visualization component or even for the entire report. Slicers can be used for better slicing and dicing of data. * Reports in Power View are interactive; the user can highlight some part of the data or different components in Power View to interact with each other.  1. **Power Map:**  * Power Map is used to visualize geospatial data in 3D mode. As soon as the visualization renders in 3D mode, it provides another dimension to it. * In Power Map, you can assume one attribute as the length of a column in 3D and another attribute as a heatmap view. Based on a geographical location, the data can be highlighted. * Geographical locations can be a country, state, city, or street address.To get the best visualization, Power Map works with the Bing Maps based on the geographical latitude or longitude or a country, state, city, or street address data.  1. **Power BI Website:**  * The solutions of Power BI can be published on the Power BI Website. * You can create dashboards in Power BI for your reports and share them with others, and you can also create reports directly on the Power BI Website. * With Power BI Website, you can perform slice and dice operations on data online using a web browser, and it doesn’t even require any other tool. * With Power BI Website, you can perform slice and dice operations on data online using a web browser, and it doesn’t even require any other tool.  1. **Power BI Mobile Apps:**  * Power BI Mobile Apps have three mobile operating systems (OS) providers: Android, iOS, and Windows. These applications provide you with an interactive view of reports and dashboards on the Power BI site. You can even share them from your mobile app. * A portion of the reports can be featured and a note can be composed on it and shared with others.In this session, we learned about eight components of Power BI which are: Power Query, Power Pivot, Power View, Power Map, Power Q&A, Power BI Desktop, Power BI Website, and Power Mobile Apps | | | |
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| **What are the steps to load Excel data in Power BI?** | | | |
| 1. **To access the data, begin by navigating to the Home Tab and selecting the "GET DATA" option. From there, choose "EXCEL WORKBOOK".**      1. **Once the required Excel sheet, specifically the "Products" sheet, is selected, proceed by choosing the PRODUCT options you wish to Load.** | | | |
| 1. **Select the PRODUCT options you want to Load and** **Click on "LOAD".**      1. **Now you'll find all the data from the product sheet displayed on the right side of the screen.**      1. **To view the data in a tabular format, locate and click on the "TABLE VIEW" option.** | | | |
| **What are the steps to load OData feed in Power BI?** | | | |
| 1. **Go to the Home Tab and click on the "GET DATA" option. From the available data sources, select "ODATA FEED."**      1. **Add or paste the OData feed link or URL into the provided field. This link should point to the specific OData service or resource you wish to access.** | | | |
| 1. **After adding the link, click on “CONNECT”.**      1. **Choose the specific (Order details )or parameters you want to load , Click on "LOAD” to retrieve the selected order details.**      1. **All the data from the order details sheet will be displayed on the right side of the screen in the “DATA” session.**      1. **To view the retrieved data in a tabular format , locate and click on the "TABLE VIEW" option.** | | | |