

Power BI Assignment 1

1.What do you mean by BI? Explain.

Answer: Business intelligence (BI) is a technology-driven process for analysing data and delivering actionable information that helps executives, managers and workers make informed business decisions. As part of the BI process, organizations collect data from internal IT systems and external sources, prepare it for analysis, run queries against the data and create data visualizations, BI dashboards and reports to make the analytics results available to business users for operational decision-making and strategic planning.

The ultimate goal of BI initiatives is to drive better business decisions that enable organizations to increase revenue, improve operational efficiency and gain competitive advantages over business rivals. To achieve that goal, BI incorporates a combination of analytics, data management and reporting tools, plus various methodologies for managing and analysing data.

2.How Power-BI helps in BI, and how does it help Analysts? Explain.

Answer:1. Ease of Use

Power BI has very simple and easy to use Interface. No programming experience is required to use Power BI. It has inbuilt intelligence which helps you to select attributes for your reports by suggesting the best reporting element.

Example: After selecting a right data source, when you opt for sales and category, it will automatically identify the column chart for you. Similarly, if you select sales and location, it will automatically identify the map chart.

2. Easy to Learn

Power BI is developed on the founding platform of Excel and it follows a similar approach to design a report. Microsoft Excel is globally accepted and widely used software which makes Power BI easy to learn.

Data modelling is purely derived on the fundamentals of Microsoft SQL Server and Microsoft Access database. Hence users/programmers can very easily adopt the data modelling of Power BI.

3. Easy to Collaborate

Power BI comes with easy to collaborate options. The user can collaborate with co-workers to create interactive reports and dashboards in “app” workspaces. The user can compile dashboards and reports into apps and can publish them to a larger audience. Sharing dashboards or reports with a small audience is facilitated even over the Mobile App with Power BI.

The user can print the report and can export it in the form of PowerPoint Presentation. They can even publish reports and dashboards to public websites where anyone in the world can view and interact with it.

4. Powerful Tool

- Visualization

Microsoft has opened up the visualization SDK in Power BI. It has a huge library for custom visualization. Use this functionality, the users can customize the UI as per their need.

- Data Shaping

Power BI offers a tool called Query Editor which is very flexible and powerful with tons of features. The most important aspect is that it is self-documenting. It also offers you an opportunity to go deeper inside the DAX language.

- Data Modelling

Any BI solution is strong if the BI model is well-developed. Power BI comes with very efficient data modelling options based on their experience of SQL database and Cube technology.

3. Explain Descriptive analytics?

Answer: Descriptive analytics is the process of using current and historical data to identify trends and relationships. It's sometimes called the simplest form of data analysis because it describes trends and relationships but doesn't dig deeper.

Descriptive analytics is relatively accessible and likely something your organization uses daily. Basic statistical software, such as Microsoft Excel or data visualization tools, such as Google Charts and Tableau, can help parse data, identify trends and relationships between variables, and visually display information.

Descriptive analytics is especially useful for communicating change over time and uses trends as a springboard for further analysis to drive decision-making.

4. Explain Predictive analytics?

Answer: Predictive analytics is a branch of advanced analytics that makes predictions about future outcomes using historical data combined with statistical modelling, data mining techniques and machine learning. Companies employ predictive analytics to find patterns in this data to identify risks and opportunities.

Predictive analytics is often associated with big data and data science. Companies today are swimming in data that resides across transactional databases, equipment log files, images, video, sensors or other data sources. To gain insights from this data, data scientists use deep learning and machine learning algorithms to find patterns and make predictions about future events. These include linear and nonlinear regression, neural networks, support vector machines and decision trees. Learnings obtained through predictive analytics can then be used further within prescriptive analytics to drive actions based on predictive insights.

5. Explain perspective analytics?

Answer: Prescriptive analytics is a type of data analytics—the use of technology to help businesses make better decisions through the analysis of raw data. Specifically, prescriptive analytics factors information about possible situations or scenarios, available resources, past performance, and current performance, and suggests a course of

action or strategy. It can be used to make decisions on any time horizon, from immediate to long term.

6. Write five real-life questions that Power Bi can solve.

Answer:

- Waiting On Figures.
- Using Data from Old Reports.
- Excessive Time Spent Preparing for Presentations.
- Being Unable to Find Specific Data Sets.
- Not Being Able to Determine Your Level of Success.