

Power BI Assignment - 1

1. What do you mean by BI? Explain

Business Intelligence (BI) refers to the procedural and technical infrastructure that collects, stores, and analyzes the data produced by a company's activities.

BI is a broad term that encompasses data mining, process analysis, performance benchmarking, and descriptive analytics. BI passes all the data generated by a business and presents easy-to-digest reports, performance measures, and trends that inform management decisions.

- * BI represents the technical infrastructure that collects, stores and analyzes company data
- * BI passes data and produces reports and information that help managers to make better decisions
- * Software companies produce BI solutions for companies that wish to make better use of their data
- * BI tools and software come in a wide variety of forms such as spreadsheets, reporting/queries software, data visualization software, data mining tools, and online analytical processing (OLAP).

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* self-service BI is an approach to analytics that allows individuals without a technical background to access and explore data.

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

Power BI is a new cloud-based Business Intelligence service provided by Microsoft. It is a business intelligence platform that allows businesses to clean and completely transform data into meaningful data. It thoroughly analyzes data and shares powerful insights.

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.

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.

Power BI helps data analysts to turn data sets into engaging, interactive and insight-enhancing reports, dashboards and visuals used to monitor the course of business strategies.

Data analytics with Power BI promotes the discovery of Information and the democratisation of data through its unique data visualisation capabilities, that improve the quality of companies' informative systems and help executives make data-driven decisions.

Power BI streamlines data analysts' work and makes it easy to connect, transform and visualise data.

3. Explain Descriptive analytics?

- Descriptive analytics is the process of parsing historical data to better understand the changes that have occurred in a business.
- Using a range of historic data and benchmarking, decision-makers obtain a holistic view of performance and trends on which to base business strategy.
- It can help to identify the areas of strength and weakness in an organization.
- Examples of metrics used in descriptive analytics include year-over-year pricing changes, month-over-month sales growth, the number of users, or the total revenue per subscriber.
- It is now being used in conjunction with newer analytics, such as predictive and prescriptive analytics.

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4. Explain Predictive analytics?

The term predictive analytics refers to the use of statistics and modeling techniques to make predictions about future outcomes and performance. Predictive analytics looks at current and historical data patterns to determine if those patterns are likely to emerge again. Industries and disciplines, such as insurance and marketing, use predictive techniques to make important decisions.

Predictive models help make weather forecasts, develop video games, translate voice-to-text messages, customer service decisions, and develop investment portfolios.

Today, companies are inundated with data from log files to images and video, and all of this data resides in disparate data repositories across an organization. To gain insights from this data, data scientists use deep learning and machine learning algorithms to find patterns and make predictions about future events.

5. Explain perspective analytics?

5. Explain prescriptive Analytics?

Prescriptive analytics is a type of data analytics that attempts to answer the question 'what do we need to do to achieve this'. It involves the use of technology to help businesses make better decisions through the analysis of raw data. Prescriptive analytics specifically 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. It is the opposite of descriptive analytics, which examines decisions and outcomes after the fact. When used effectively, it can help organizations make decisions based on facts and probability-weighted projections instead of conclusions based on instinct. Prescriptive analytics isn't foolproof, as it's only as effective as its inputs.

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

1. Waiting On Figures

Having to hold off on major business decisions because you're unable to collect figures from a colleague or need to sift through numerous reports on a server to find what you need, has been considered normal routine back in the day, but business has progressed, and waiting for data reports is no longer acceptable. Power BI allows you to access your company's data analytics almost instantly. On top of that, it also makes the data easy to decipher with advanced visualizations which can be shared at the touch of a button.

2. Using Data from Old Reports

While being able to share documents (such as quarterly reports) with employees through the cloud was exciting when it first came out, it leaves too much room for human error:

Using Power BI reduces the possibility of error by allowing reports to be run in seconds using only the most current data. This ensures that reports can't be altered or deleted and eliminates the time spent sifting through files to

Find the correct data.

3. Excessive Time Spent Preparing for Presentations

Presentation preparation can be time taking. On top of collecting all of the data you want to share, the information has to then be put into a visually appealing presentation. If you want to include charts, graphs and images, presentations can take a significant amount of time to produce. In addition to that, by the time the presentation is complete, the data will already be outdated.

Power BI can quickly and easily create visual representations of your data and provide stunning and accurate presentations for your meetings. Using Power BI's automated reporting tools can save hours of preparation.

4. Being Unable to Find Specific Data sets

Sitting through spreadsheets in search of specific data sets is time-consuming and inefficient. One of the most useful Power BI solutions is the ability to easily search for data and data-sets.

Power BI allows IT members to publish data catalogs for others to view. This makes it easier

for you to find the data sets needed to perform an analysis.

5. Not Being Able To Determine Your Level of Success.

While business intelligence offers a lot of useful information, not everyone knows how to use it. Even with the numbers in plain view, it can be difficult to determine whether or not your business is successful and what areas need improvement. Using power BI's Ques & Answer Feature, it's now possible to ask your software these questions using natural language. Ask what your profits were for that month or how customer subscription numbers compare to last year's.

The natural language technology makes it easy and you don't have to worry about putting your questions in any specific format. The tool will also draw your attention to any problem areas that need to be addressed, ensuring you don't miss even the smallest opportunities to make a profit.

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