* Pawankhi Assignment 1 *

Q-1] What do you mean by BI ? Explain.

BI, Business Intelligence is an umbrella term that includes the application, infrastructure and tools and best practices that enables access to and analysis of information to improve optimize decision and performance.

* BI is a tecnology-driven process for analyzing data and presenting actionable information to help corporate executive, business manager and other end users make more informed business decision.
* BI is the set of technique and tools for the transformation of raw data into meaningful and useful information for business analysis purpose.
* BI represents the tools, system and software that play a key role in the strategic planning process of corporation.
* BI also used in use of computing language technologies for the identification, discovery and ananlysis of business data like sales revenue, products, costs and incomes.
* BI combines business analytics, data mining, data visulization data tools and infrasture, and the best pratise to help organisations make more data driven decisions.

Q2] How power BI helps in BI, and how does it helps in analytics? Explain.

→ Power BI is a business intelligence platform that provides non-technical business users with tools for aggregating, analyzing, visualizing and sharing data.

* Power BI is a business analysis solution that lets you visulize your data and share insights across your organization, or embed them in your app or website.

* Power BI also provides interactive visuals with self service business intelligence capabilities, when end users can create reports and dashboards by themselves.

* Power BI enables anyone to visualize and analyze data with great speed efficiency and understanding. It connects users to a broad range of live data through build in dashboards, provides interactive reports and enables you to create visulizations with easy.

* Power BI brings the predictive power of advance analytics to allow to create predictive models from their data.

* Some of the most common uses for the platform includes creating reports and dashboards that present data sets in multiple ways using visuals.

Q3]. 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 bench marking decision makers obtain a holistic view of performing and trends on which to base business strategy.

* Descriptive anaytics takes raw data and paresses that data to draw conclusion that are usefull and understandble by manager, investors or stakeholders

* Descriptive anaytics uses a full range of data to give an accurate pitchure of what has happen in business and how that differs from comparable periods.

* The two main methods of descriptive analytics is in which data is collected for data aggregation and data mining. Before data can be made sense of it must first be gathered and then parsed into manageble information.

* Descriptive Analysis is especially useful for communication change over time and uses trends as a spring board for future analysis to driven decision making.

Q4] Explain Predictive Analytics?

→ Predictive analytics is a form of technology that makes prediction about certain unknowns in the future. It draws on a series of techniques to make these determination, including data mining, artificial intelligence, machine learning, modeling and statistics.

* Predictive analysis is use of data to predict future trends and events, it uses historical data to forecast potential scenarios that can help drive strategic decision.
* Predictive analysis can be conducted manually or using machine learning algorithms. Either way historical data is used to make assumptions about future.
* Predictive analysis models capture relationships among many factors to assess risk with particular set of condition to assign a score or weightage
* The data mining and text analytics along with statistics allows the business users to create predictive intelligence by uncovering patters and relationships in both structured and unstructured data.
* Predictive analytics allows organization to become proactive, forward looking anticipating outcomes and behaviour based upon the data and not on a hunch or assumptions

Q5) Explain Prescriptive Analysis?

→ Prescriptive analysis is a type of data analytics that attempts to answer the question "what do we need to achieve by this?"

* It involves the use of technology to help business make better decision through analysis of raw data
* Prescriptive analytics specifically factors information about possible situation or scenarious, available resources, past performance and current performance and suggest a course of action or strategy.
* Machine learning algorithm are often used in prescriptive analysis to phrase through large amounts of data faster and often more efficiently that humans can. Using if and else statement algorithm comb through data and make recommendation based on specific combination of requirement
* Prescriptive analytics gathers data from a variety of both descriptive and predictive sources for its models and applies them to process decision-making. Moreover, it can measure the repercussion of decision making based on different possible future scenario.
* Most modern BI tools have build in prescriptive analytics to provide users with actionable results that empower them to make better decisions.

Q6] Write five real-life questions that power bi can solve.

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1) Product Sales Data :- These business keeps details records of their sales for variety of reasons. In this dashboard can be leverage Power BI visulization types such as Pie chart, Bar charts, Doughnut chart Funnel chart etc.

2) Financial performance :- For summary page you can use Funnel charts, Combo charts, Waterfall charts For income statement you can you use cards, combo charts For balance sheet you can use Cards and Tables.

3) Healthcare Sales :- For data visulizations you might use Tables for displaying the therapeutics group wise sales, Colmn charts for monthly sales.

4) Loan Applications :- For evaluation loan application data or to find abstract, its can be implemen using Power BI Word cloud feature, Pie chart on basic Map, Bar charts, Charts can be used.

5) Movie sales Visulization :- This visulization shows movie sales over time and turn it into an interactive visual experience.

A KDE plot can provide a density graph and average rating for specific genre and distribution for given time.