**Power BI Assignment 1**

1. **What do you mean by BI? Explain.**

**Answer:** Business intelligence (BI) is a process driven by technology that analyses business data in order to provide information that can be actioned so that executives and managers can make better-informed business decisions.

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

Some of the key features of BI are: -

1: It has maximum features.

2: It is cost effective

3: It offers data connectivity.

4: It is recognized by Gartner.

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

**Answer:** Power BI is used to find insights within an organization's data. It can help connect disparate data sets, transform and clean the data into a data model and create charts or graphs to provide visuals of the data. All of this can be shared with other Power BI users within the organization.  Analyst does just that by analyzing complex sets of data within a company to determine recommendations for business growth and improvement. Knowing how to properly collect and interpret data can have a significant impact on a business' success.

1. **Explain Descriptive analytics?**

**Answer:** Descriptive analytics is a branch of data analytics that focuses on summarizing and interpreting historical data to gain insights and understand patterns, trends, and relationships within the data. It involves using various statistical and visualization techniques to describe and present data meaningfully.

The primary objective of descriptive analytics is to provide a clear and concise understanding of what has happened in the past. This helps organizations and individuals answer questions such as ‘What happened?’, ‘When did it happen?’, and ‘How did it happen?’. In other words, descriptive analytics mines historical data to unveil actionable information for decision-making and anomaly detection purposes.

1. **Explain Predictive analytics?**

**Answer:** Predictive analytics is an advanced form of data analytics that attempts to answer the question, “What might happen next?” As a branch of data science for business, the growth of predictive and augmented analytics coincides with that of big data systems, where larger, broader pools of data enable increased data mining activities to provide predictive insights. Advancements in big data machine learning have also helped expand predictive analytics capabilities.

**5 .Explain perspective analytics?**

**Answer:** Prescriptive Analytics is the area of Business Analytics dedicated to searching out the best solution for day-to-day occurring problems. It is directly related to the other two comparable processes, i.e. **Descriptive and Predictive Analytics. Prescriptive Analytics** can be defined as a type of data analytics that uses algorithms and analysis of raw data to achieve better and more effective decisions for a long and short span of time.  It suggests strategy over possible scenarios, accumulated statistics, and past/present databases collected through the consumer community.

**6.Write five real-life questions that PowerBi can solve.**

**Answer**: 1. Unavailability of immediate statistics

Statistics, figures, and numbers are the lifeblood of a business and organization, particularly those operating in today’s modern world, where business intelligence is essentially the brain of a company.

In that situation, consider what waiting on statistics and figures can mean for your business when you’re looking to make a major business decision but have to delay it because the data is not immediately available for several reasons.

That is not a situation you want to be entertaining outside the hypothetical realm, and luckily with Power BI solutions, you don’t have to.

Power BI provides instant access to a business’s data storage and analytics which means no more cumbersome delays. Additionally, its built-in functionality that makes it simpler to decipher and understand data with visualizations is a further boon. Not to mention, you can instantly share them with others.

2. Time consumed on presentation preparation

Presentations are a bane for everyone involved, agreed? Well, except for those who like the sound of their voice a bit too much. But, they are still an integral part of the corporate world, from pitching new investors to giving performance reviews to addressing shareholders.

Preparing for presentations and presentations are herculean tasks themselves, tedious and time-consuming, requiring a lot of elbow grease and legwork.

You not only have to collect the relevant data but then arrange it into a visually appealing and understandable form. Furthermore, some projects or presentations might necessitate months-long preparations that might mean the data you initially started working with becomes outdated.

Power BI solutions, meanwhile, get rid of that with a simple click of a button. With the Get Data feature, you can instantly access, source, and compile data from multiple sources. The powerful visualization and automated reporting tools mean that most of your job is done for you – what took weeks or days will take hours at most.

3. Lost a specific dataset and can’t find it?

Losing a dataset, particularly an important one, and its location can be a major nightmare scenario for organizations with poor data-keeping records and practices.

Recovering that dataset is a troubling scenario. Checking and searching through spreadsheets for a single dataset could take precious time and manpower.

Luckily, Power BI solutions curb exactly such a situation. Power BI’s intuitive, simple, and easy functions to search for data and datasets mean that no data is ever truly lost.

With further tools like data catalogs, natural language technology, and its Q&A feature, relocating and better understanding your data becomes a more routine and simple process.

4. Low-quality data

Old data might be valuable for a business to lose or stop using. At the same time, it might be of low quality or riddled with issues due to over time, poor past data-keeping practices, or other reasons.

One of the pro tips of Power BI solutions is that the software has some tools and features that can help you quickly identify data quality issues and provide numerous ways to resolve them.

One such example is Power Query which has abilities to clean and prepare data for analysis. Furthermore, data profiling tools can aid you in removing all inconsistencies, null values, and data quality problems.

Therefore, Power BI can give a facelift to your old data, so to speak, without the need to abandon its use or risk losing it.

5.Complex reporting tools?

Companies have often used custom firmware and software for reporting needs, creating a monopoly of power and a disconnect between report users and creators. Users depended on tech teams for whatever changes needed to be made in reports.

Power BI solutions help solve that business problem by demolishing that fictional wall and making report creation an easy and intuitive function at the press of a button. It renders report creation a process that any employee can easily learn for themselves, thus achieving cost and time efficiency by removing the need for tech teams. For example, with paginated reports, non-tech employees can do wonders.