**Email Id – harshadkhedekar123@gmail.com**

**Power BI Assignment 1**

1. What do you mean by BI? Explain.

Ans.

* **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 parses all the data generated by a business and presents easy-to-digest reports, performance measures, and trends that inform management decisions.**
* **The need for BI was derived from the concept that managers with inaccurate or incomplete information will tend, on average, to make worse decisions than if they had better information.**

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

Ans.

* **One of the main strengths of Power BI is its intuitive user interface that allows both technical and non-technical analysts to build data visualizations and analyses efficiently.**
* **The user-friendly drag-and-drop interface makes it easy to answer complex data-related questions without the need for programming skills.**
* **This simplicity lowers the barrier for users to perform advanced analytics such as trend analyses, regressions, and statistical summaries.**
* **Power BI can also be integrated with a variety of existing Microsoft apps, such as Microsoft teams, Excel, and PowerPoint, which makes integrating data insights into existing workflows much easier.**
* **The ability to weave advanced visualizations into a coherent data narrative is what sets Power BI apart from other tools like Excel. These data stories are highly effective in framing a compelling case to communicate actionable insights to decision-makers, which aligns with the primary goal of business intelligence.**

1. Explain Descriptive analytics?

Ans.

* **Descriptive analytics is a statistical method that is used to search and summarize historical data in order to identify patterns or meaning.**
* **For learning analytics, this is a reflective analysis of learner data and is meant to provide insight into historical patterns of behaviors and performance in online learning environments.**
* **For example, in an online learning course with a discussion board, descriptive analytics could determine how many students participated in the discussion, or how many times a particular student posted in the discussion forum.**

1. Explain Predictive analytics?

Ans.

* **Predictive analytics has been around for decades, it's a technology whose time has come. More and more organizations are turning to predictive analytics to increase their bottom line and competitive advantage.**
* **Growing volumes and types of data, and more interest in using data to produce valuable insights.**
* **Faster, cheaper computers.**
* **Easier-to-use software.**
* **Tougher economic conditions and a need for competitive differentiation.**
* **With interactive and easy-to-use software becoming more prevalent, predictive analytics is no longer just the domain of mathematicians and statisticians. Business analysts and line-of-business experts are using these technologies as well.**
* **Organizations are turning to predictive analytics to help solve difficult problems and uncover new opportunities. Common uses include:**
* **Detecting fraud.**
* **Optimizing marketing campaigns**
* **Improving operations**
* **Reducing risk**

1. Explain perspective analytics?

Ans.

* **Prescriptive analytics makes use of machine learning to help businesses decide a course of action based on a computer program’s predictions.**
* **Prescriptive analytics works with predictive analytics, which uses data to determine near-term outcomes.**
* **When used effectively, prescriptive analytics can help organizations make decisions based on facts and probability-weighted projections, rather than jump to under-informed conclusions based on instinct.**
* **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.**
* **Prescriptive analytics relies on artificial intelligence techniques, such as machine learning—the ability of a computer program, without additional human input, to understand and advance from the data it acquires, adapting all the while. Machine learning makes it possible to process a tremendous amount of data available today.**
* **Prescriptive analytics can cut through the clutter of immediate uncertainty and changing conditions. It can help prevent fraud, limit risk, increase efficiency, meet business goals, and create more loyal customers.**
* **Prescriptive analytics is not foolproof, however. It is only effective if organizations know what questions to ask and how to react to the answers. If the input assumptions are invalid, the output results will not be accurate.**

1. Write five real-life questions that PowerBi can solve.

Ans.

* **Team collaboration**
* **level of detail that require**
* **Find Specific Data Sets**
* **Connect your data and gain instant insights**
* **Power BI mobile capabilities (Anywhere)**