**ASSIGNMENT 4: DATA ANALYTICS USING MICROSOFT BI EMERGING TRENDS: DATA ANALYTICS**

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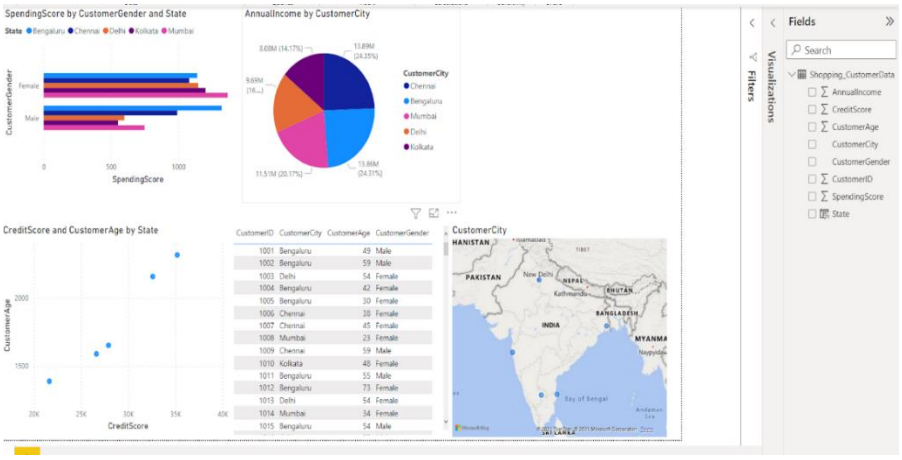
## TRENDS OF DATA ANALYTICS IN DIFFERENT SECTORS

Data analytics is a set of strategies for extracting relevant and useful information from vast and diverse quantities of data acquired from various sources and of various sizes. There are distinctions between the different sectors of data analytics which include data analysis, data analytics, and data science. Data analysis primarily focuses on processes and functions. Data analytics deal with information, dashboards, and reporting. Data science focuses on finding meaningful correlations between large datasets and seeks to discover new and unique questions that can drive business innovation. There are several types of data analytics which include descriptive, diagnostic, predictive and prescriptive analytics. Data analytics entails steps like creating criteria for grouping, collecting, organising, and cleaning data. Data Analyst plays a major role helping businesses optimize their performance. Implementing data analytics will aid businesses in streamlining operations, reducing costs, and increasing profits.

## INDUSTRIAL TALK 7: INTRODUCTION TO DATA VISUALIZATION (iCEP)

Data visualization is a way of how information can be represented. It is important to first understand the several types of data that can be visualized and also their relationships to each other. The types of data include quantitative, discrete, continuous, and categorical data. There are several types of data relationships such as nominal comparison, time series, correlation, ranking, deviation, distribution, and part-to-whole relationship. The 6 types of charts include bar chart, pie chart, line chart, scatterplot chart, bubble chart, and heat map variations. Microsoft Power BI is one of the software that can be used to visualize data. It is a user-friendly software that has the flexibility to transform data. Power BI desktop app can be used to generate reports. For publishing the reports, we can use Power BI Services (Software as a Service – SaaS). Power BI mobile app is used to view the reports and dashboards. Overall, this talk has exposed us to the commonly used data visualization software in the industry, that is the Microsoft Power BI.




## DISCUSSION

The first histogram diagram is interpreted as a bimodal histogram. Data showed that female customers are highest in Mumbai while male customers are highest in Bengaluru. The pie chart diagram includes information on annual income by customer city. From the chart, we can see that the highest annual income by customer city is Chennai while the lowest in Kolkata. The data from scatter chat shown that the relationship between Credit Score and Customer Age is positive. As the Credit Score-values increase, the Customer Age tend to increase.

## CONCLUSION

In conclusion, big data analytics is a form of advanced analytics that entails complex applications in order to uncover information that can help organizations make informed business decisions. The process of converting big data sets and metrics into charts, graphs, and other graphics is known as data visualisation. Power BI helps people to gain good knowledge of data visualization, graphs and charts, data modelling and sharpen the ability to extract data from the web and other sources and build a dashboard.