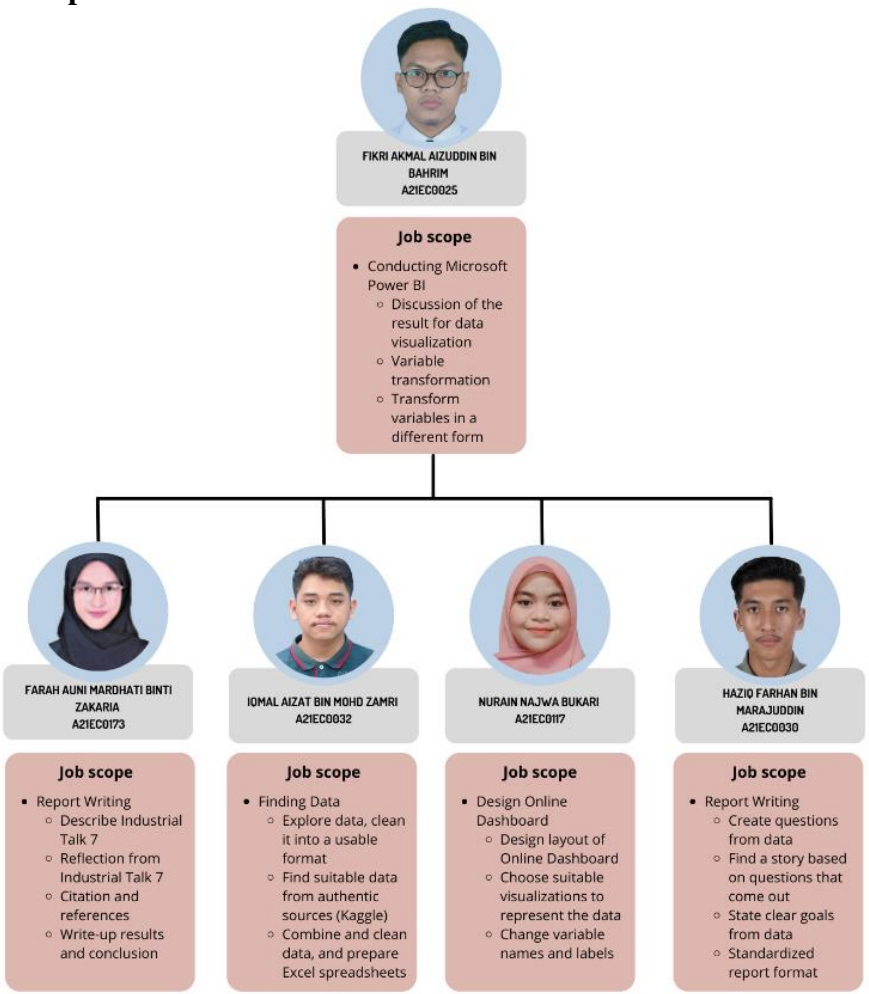
Group Details



Trends of Data Analytics in Different Sectors and Reflection of Trends

Data analytics is a series of techniques aimed at extracting relevant and valuable information from extensive and diverse sets of data gathered from different sources. The use of data analytics is to assist organizations for client's better understanding and other organizations' frameworks. Trends of data analytics covers multiple sectors such as banking and securities, communications and media, agriculture and healthcare.

For banking and securities, massive use of data stores in retail banking and data security helps to identify security risks pertaining to personal customer information. Trend of using big data security contributes to guarding all private information that is forbidden to spill off. In the agriculture sector, the trend is using predictive and prescriptive analytics tools to measure the weather and maximize the productivity from the land for world's population growth. Predictive and prescriptive analytics tools also enable an organization for revenue generation and expenses reduction as it provides detailed information on customers' needs and at the same time it is able to reduce manual processes and costs of production. In the healthcare sector, wearable devices such as Apple Watch Series 7 apply real-time data analytics such as heartbeat tracking calculation which is able to save people's lives in emergency and life risk situations through immediate updates as real-time analytics defines both quick operation (real-time) and its capability to pull through data from its sources.

Industrial Talk 7 Related to Microsoft Power BI and Reflection

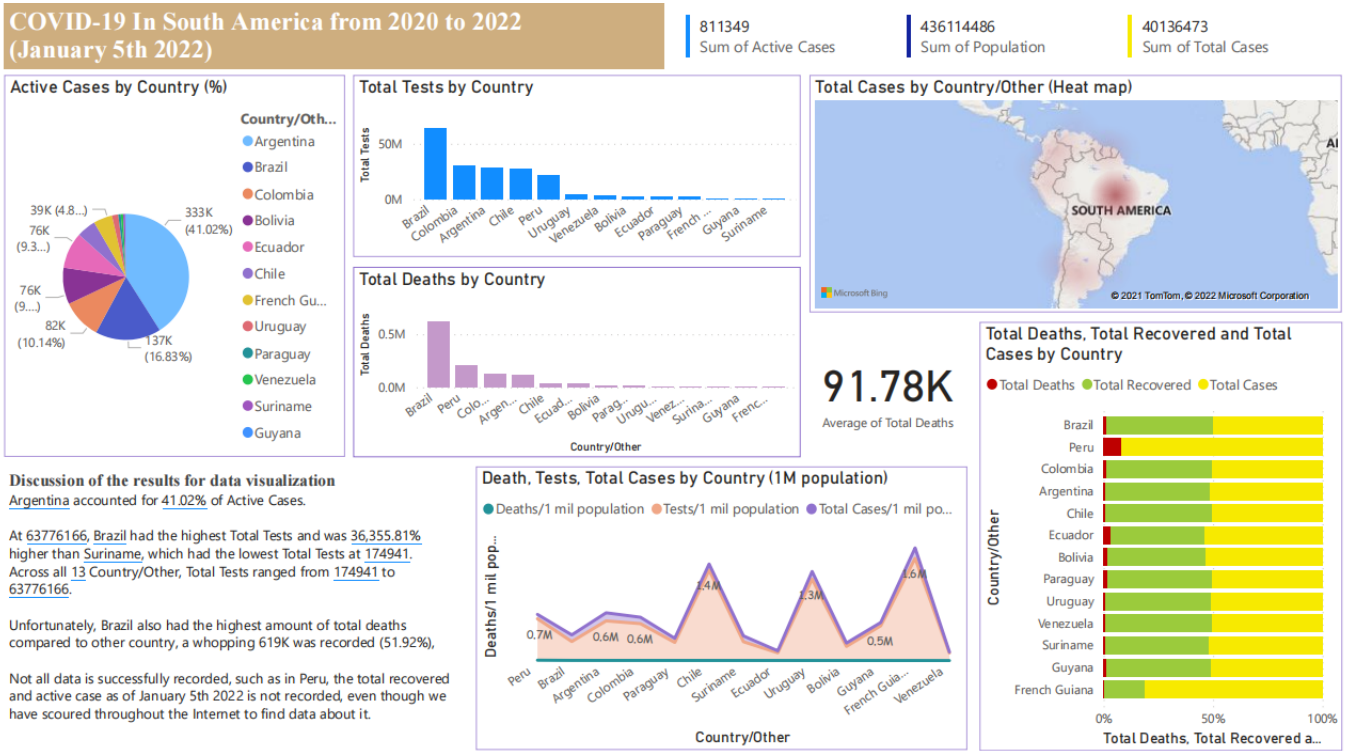
Data analytics is used in various sectors with its multiple functions for the purpose of accuracy of result and predictions. Big data analytics illustrates the process in extracting patterns, trends and correlations from large amounts of raw data to establish new data-informed decision making. The requirements one has to concern to obtain better results of big data analytics is the five V's of big data which consists of volume, velocity, variety, veracity and value (Herencia, O., 2020).

Based on the Industrial Talk given, data analytics also consists of four different types, descriptive analysis to describe the occurrences over time such as comparison over years, diagnostic analytics which focuses on the event of data obtained such as impact of some certain event to the main focus, predictive analytics that focus on future event and predicting on what it might happen in the future and lastly, prescriptive analytics which indicates a plan of action.

An online software as a service (SaaS) such as Microsoft Power BI helps out on connecting data sources with its features and assists to uncover the insights and is visually interactive for data presentation (Mihart). It provides several tools to meet customer's requirement in demand for data presentation, such as the usage of Power BI Desktop for report creators and Power BI Report Builder for enterprise report creators. Based on the organization's data report, Covid-19 cases in South America as in cumulative data, which firstly is grouping the data that will be helpful in the process of data collection by to examine on which data will be helpful and related and which is not, so, the last step will be cleaning the data so that there will be no overlapping or mistakes occurred during data presentations.

Big data analytics pins out its importance from customer experiences to analytics for decision making improvement by understanding and providing better for customers' needs. It is also important to obtain efficient operations such as saving up money and expenses as one has decided to focus on certain and important parts rather than spending budgets over less highlighted issues. Thus, this helps for an organization in achieving and improving results, all that depends on big data analytics.

Online Dashboard Report



A Narrative of the Analytics

As the core feature promoted by the Microsoft Power BI, our goal is to achieve understandable visualizations and insights just within a glance of observation. The intelligence ability allows faster data analysis in an efficient approach. Thus, this comprehensive and powerful tool serves centralized and structured accumulated data to maximize the usage of the and interpret process. Regarding our chosen data of South America's Covid-19 cases, all the data sets from the workloads of excel files can be interconnected. This will assist us to experience a big picture from the broad range and massive volume of data from 2020-2022 covid 19 cases.

Despite only representing 5% of the world's population, South America has stated nearly a quarter of all Covid-19 deaths (Malta M., 2021). Therefore, few questions are arose based upon the dataset that we chose to study:

1. Among the 13 countries of South America, which country leads the most percentage of active cases in the range period of 2020 to 2022?

Using the variable transformation tools in the Microsoft Power BI, all sorts of data can be interchanged as users desire. On behalf of the question above, to create a comparison, 2 data are going to be selected, active cases that have been customized to percentage form and country name.

2. Mean or average of total death in South America within 2020 – 2022?

Technically, average calculates the ratio of particular data to the sum of values entirely. By using the same method as the previous question, 2 data are required which are the total death of each country and total number of South American countries.

In accordance with the visualizations depicted on the online dashboard, the interconnectedness of variables generates a clear answer that we can conclude. For instance, to find the mean of total death, this data analytics tool needs a set data of total death and amount of South America countries. Hence, end users will obtain better decisions produced by the relevant variables chosen assisted by Microsoft Power BI.

Conclusion

The implementation of Microsoft Power BI Desktop helps the user in data presentation and visualizing the content of the report as it gives the benefit in assisting the members in the organization in depicting data of our research entitled COVID-19 in South America from 2020 to 2022, particularly data ending on January 5th, 2022. The data shows the statistics of total active cases, totally recovered, and total deaths from each country in South America. The French Guiana obtained the highest rank for total cases and death by COVID-19 per one million population in South America. Therefore, the advantage of Power BI Desktop for users is that they are able to make comparisons within the same categories from the data given. As a result, we are able to identify that Brazil has the highest population in South America which is 215M but it maintains its position at third last rank for the total cases and death per one million population. This shows that Brazil has taken good actions in overcoming the COVID-19 pandemic in their country compared to the rest. The Microsoft Power BI Desktop also helps in exploiting the details and producing comparisons over specific or other different and detailed categories.

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