REPORT TITLE

Data Analytics of The Students at Primary Level in Government and Government-Aided Schools in Malaysia from the Year 2000 until the Year 2019

GROUP DETAILS AND TASKS ASSIGNED

LEADER

WAI JIA WEN A21EC0139

• Distribute tasks to members, write group details, introduction, and reflections.

MEMBERS

CHIA JEE LIANG A20EE0029

• Download dataset, combine, and clean data, and import data into Microsoft Excel.

HUAM JUN XIANG A21EC0031

• Perform data analytics using Microsoft Power BI, composing the final dashboard report.

KRISTY YAP JING WEI A21EC0191

• Interpret the data analytics, write results and conclusion.

INDUSTRIAL TALK 7: INTRODUCTION TO DATA VISUALIZATION (ICEP)

Microsoft Power BI is a Business Intelligence tool that enables users to visualize their data by making interactive dashboards and reports. The Power BI Services is used to publish reports, while the desktop app's function is to prepare reports. The reports and dashboard published can be viewed by using Power BI mobile app. Power BI is useful to carry out data analytics for your dataset from various resources. You can present your data according to your requirements and preferences with easy toggling. Power BI have many chart types, and you can relate the data to conclude and visualize a result according to your business needs. The industrial talk is very informative. The speaker, Mr Isma Redha Bin Abd Rahim is an experienced data analyst and currently a data engineer. He shared about the data types, data relationships, and chart types. Besides, he also demonstrates how to carry out data analytics and make an online dashboard report using Power BI. After listening to this talk, we knew the importance of data analytics and acquired the skill to use the Power BI app.

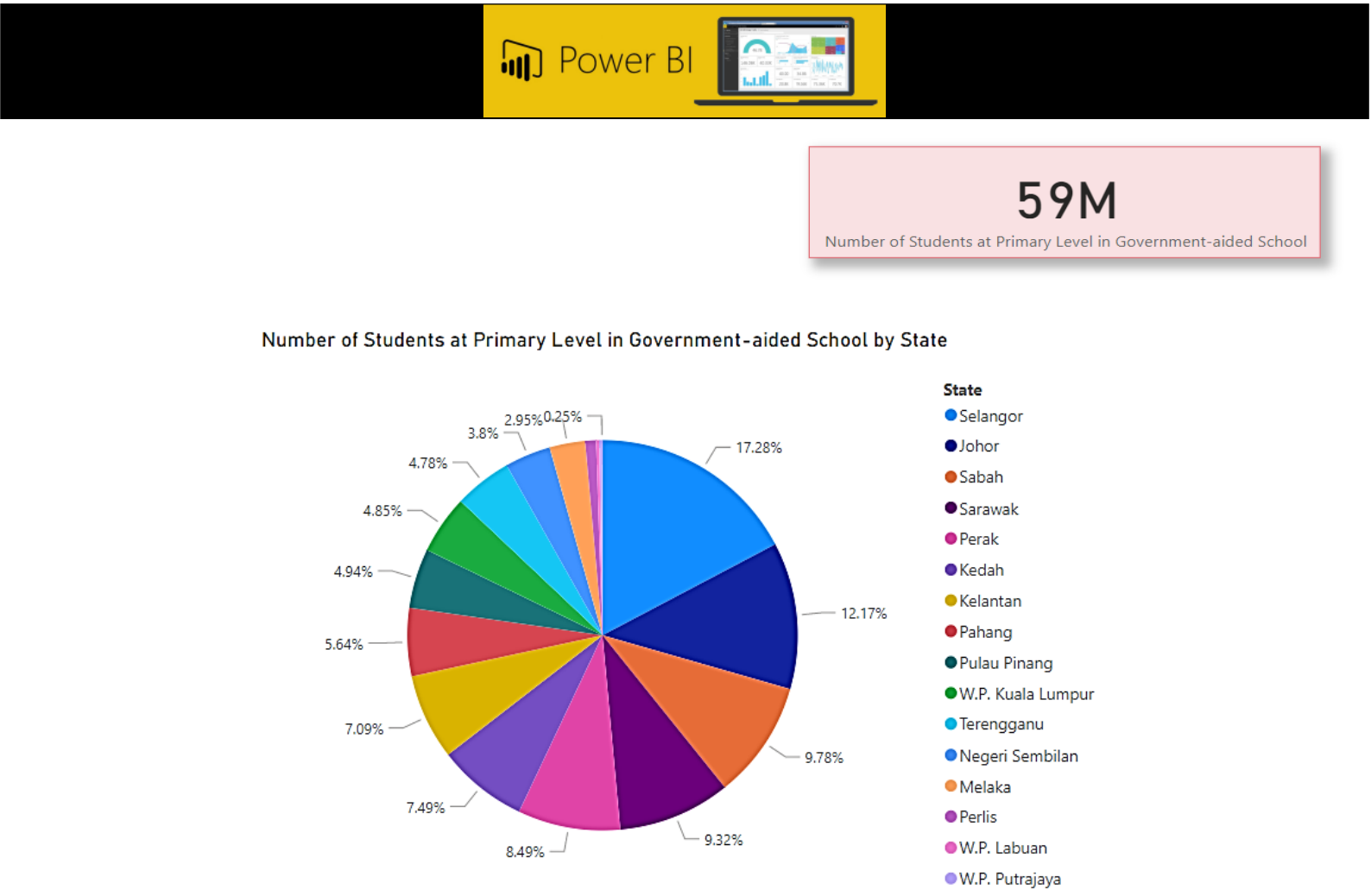
TRENDS OF DATA ANALYTICS IN DIFFERENT SECTORS

Data analytics is a sequence of procedures to extract relevant and useful info from datasets collected from several sources and differing in size. Many sectors apply data analytics like healthcare, education, manufacturing, and insurance. In healthcare, data analytics is used to gather public health data to ensure faster responses to individual health problems, and sooner identify the global spread of the new virus such as COVID-19. Health Ministries of each country use big data analytics tools to manage the data gathered from surveys or medical records. Furthermore, data analytics help to track the performances of students. The data analytics also applied in recording the students' attendance to classes and mapped their interest according to the attendance. The ministry of education can adjust the syllabus according to the students' interests and weaknesses. In addition, manufacturing companies use data analytical tools to know which products can generate maximum profits for their business. After observing the market trends, the manufacturing company can adjust their production of certain products and readjust the costs for other products. Last but not least, data analytics is also widely used in the insurance sector. The insurance company need to develop an insurance package according to customers' needs and beneficial to their company at the same time. They use business big data analytics to track the insurance policy demand in society. To conclude, the industry had started shifting towards data analytics to help them to visualize and scale their business efficiently. Hence, we should acquire data analytics skills to improve our potential in the industry in the future.

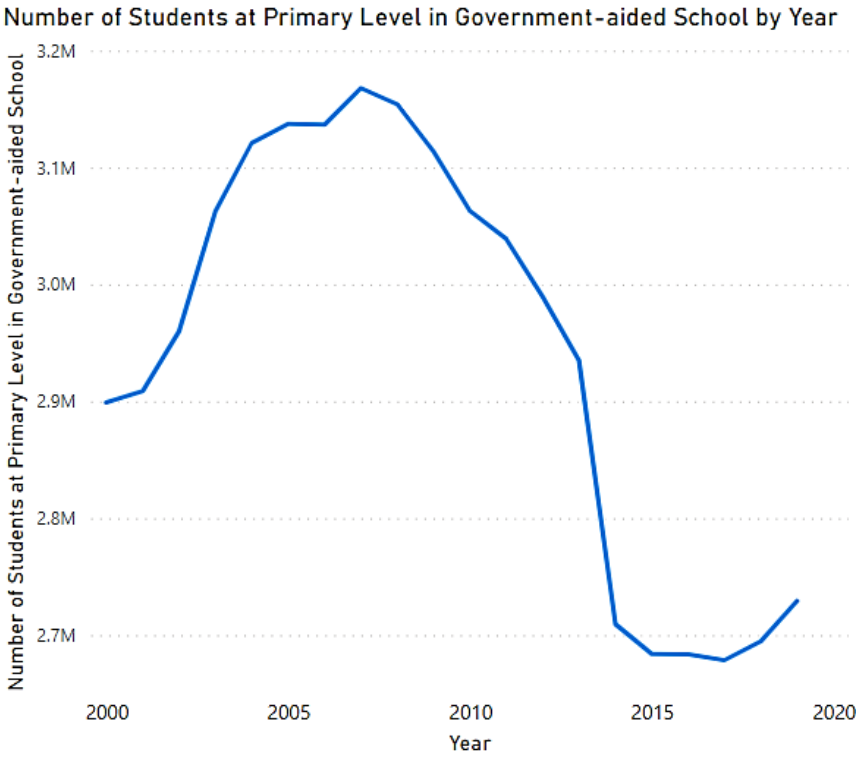
NARRATIVE OF THE ANALYTICS CONDUCTED

The education level of the residents in a country is one of the aspects that shows the urban planning level of the country. A well-developed country must have complete educational facilities to ensure all residents have the opportunities to study. Therefore, we conducted descriptive analytics about the students at primary level in government and government-aided schools in Malaysia from the year 2000 until the year 2019. The **questions** are:

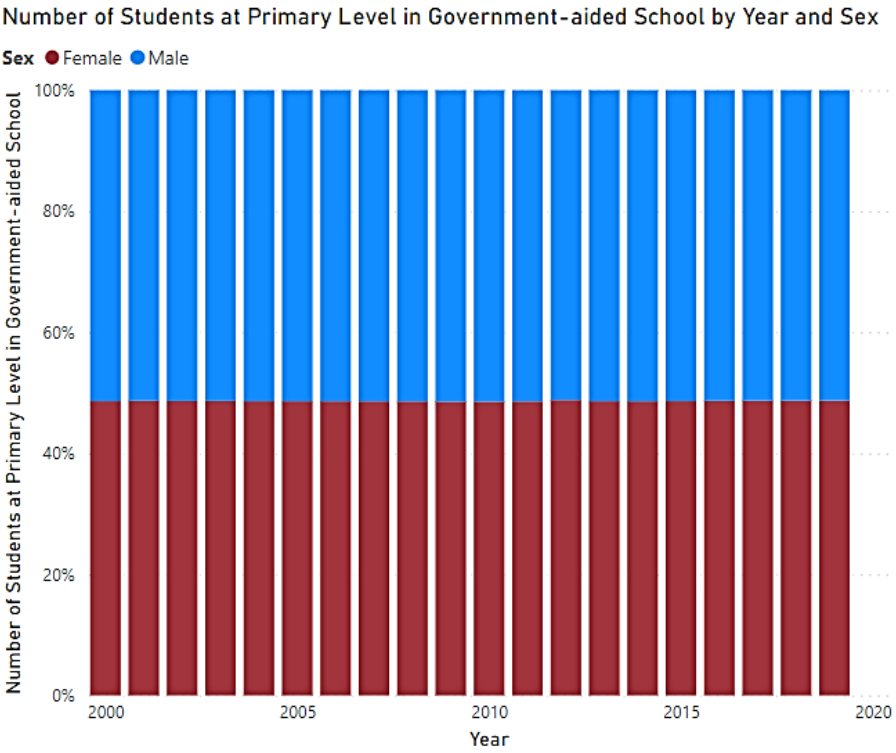
1. **What is the trend of number of students at primary level in government and government-aided schools in Malaysia from the year 2000 until the year 2019?**
2. **What is the difference between number of male and female students at primary level in government and government-aided schools in Malaysia from the year 2000 until the year 2019?**



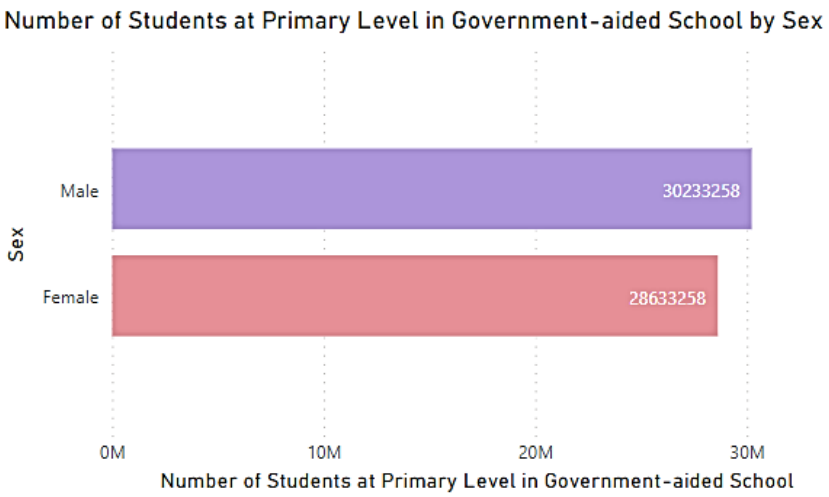
The **first** graphic is a **pie chart** of the **Number of Students at Primary Level in Government-aided School by State**. The states of Malaysia include Selangor, Johor, Sabah, Sarawak, Perak, Kedah, Kelantan, Pahang, Pulau Pinang, W.P. Kuala Lumpur, Terengganu, Negeri Sembilan, Melaka, Perlis, W.P. Labuan dan W.P. Putrajaya. From **2000 until 2019**, the state with the **highest** number of students at the primary level was **Selangor** with **10,170,869** students (**17.28%**) from the **total** of **58,866,516** students. Meanwhile, **W.P. Putrajaya** had the **lowest** number of students, **145,074** (**0.25%**) from the **total** number of students (**58,866,516**) at the primary level in government-aided schools from the year **2000 until 2019**.



The **second** graphic is a **line graph** showing the **Number of Students at Primary Level in Government-aided School by Year**. The **number of students** at the primary level in government-aided schools **increased** from **2,899,048** students in the year **2000** to **3,167,775** students in the year **2007** which recorded the highest number of students. This **increment** of **268,727** students might be caused by the policy change of government that focus more on education and built more government-aided primary school. After **2007**, the number of students decreased rapidly to **2,678,629** students in **2017**. The **decrement** of number of students in government-aided schools of **489,146** might be due to the increment of private primary school built in Malaysia. After **2017**, the number of students rose gradually to **2,729,259** students in **2019**. The change in mindset of people about government-aided school provides more benefits might be the reason of the increment of **50,630** students between these years.



The **third** graphic is a **100% stacked column chart** about the **Number of Students at the Primary Level in Government-aided School by Year and Sex**. From the graph above, we noticed that the percentage of **male** and **female** students was nearly the same every year. From **2000 until 2019**, the percentage of **male** students (**approximately 51%**) was slightly higher than the **female** students (**around 49%**). This means there is no gender discrimination in the enrolment of students by government-aided schools. All people regardless of their gender must be provided the chances to study and gain knowledge.



The **fourth** graphic is a **bar chart** about the **Number of Students at Primary Level in Government-aided School by Sex**. It shows that the number of male students was higher than the number of female students overall. The total number of **male** students at the primary level in government-aided schools was **30,233,258** while the total number of **female** students was **28,633,258** from the **year 2000 until 2019**. The difference between total **male** and **female** students was **1,600,000**.

CONCLUSION

The data analytics that we had done is about the student at the primary level in government-aided schools in Malaysia by various points which are sex, year, and states from 2000 to 2019. We import the data into Microsoft Excel, then use Microsoft Power BI to perform the process of data analytics. The results of data analytics are shown in graphics such as bar chart, line chart and pie chart. From the discussion of the results, we are able to learn more about our data results especially the highest data and the lowest data that are written clearly. Through this topic, we had enhanced our knowledges of analysing data and exploring data visualization by using Microsoft Power BI. We can use these knowledges in future every time after we collect the complicated data so that we can visualize the result of data in detail.

CITATION

Nazurah Syahirah Binti Nazaruddin. (2021, Mac 19). Number of Students at Primary level in Government & Government-Aided Schools by State and Sex. Ministry of Education, Malaysia. Retrieved from https://www.data.gov.my/data/ms_MY/dataset/number-of-students-at-primary-level-in-government-government-aided-schools-by-state-and-sex

ONLINE DASHBOARD REPORT LINK

https://app.powerbi.com/view?r=eyJrIjoiOTI5NzE2NjUtMWFkYS00OTQ0LTgyN2ItM2ZlZjkyNDJmMDRmIiwidCI6IjBlMGRiMmFkLWM0MTYtNDdjNy04OGVjLWNlYWM0ZWU3Njc2NyIsImMiOjEwfQ%3D%3D&pageName=ReportSection