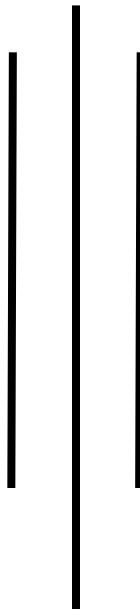




School of Engineering & Technology

Asian Institute of Technology

AT82.05 - Business Intelligence analyst



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Assignment Report: 1

Submitted To
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Task 1

Significant features:

Data Connectivity: Power BI can connect to a wide range of data sources, including Microsoft Excel spreadsheets, databases, cloud-based services like Azure and AWS, and web APIs. This allows users to easily access and analyze data from multiple sources in one place.

Data Modeling: Power BI allows users to create data models that can handle complex relationships between data tables. This allows users to create meaningful relationships between different data sources and create powerful visualizations.

Data Visualization: Power BI provides a variety of visualization tools that allow users to create charts, graphs, tables, and other visual representations of data. These visualizations can be customized to meet specific business needs and can be shared with others using the Power BI service.

Collaboration: Power BI allows multiple users to collaborate on reports and dashboards in real-time. This feature is particularly useful for teams working on the same data and allows for quick and easy collaboration.

Mobile Support: Power BI provides mobile support for iOS, Android, and Windows devices. This allows users to access and analyze data on-the-go, from anywhere in the world.

Integration with Other Tools: Power BI can be integrated with other Microsoft tools like Excel and SharePoint, as well as other third-party tools like Salesforce and Google Analytics. This allows users to access and analyze data from multiple sources in one place.

Major components:

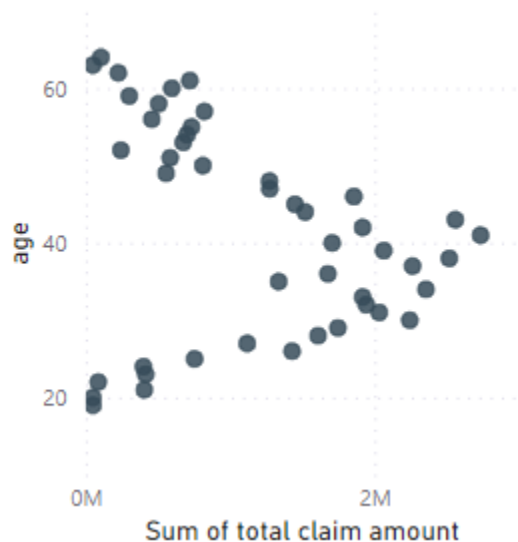
Data Connectivity: This ingredient includes the ability to connect to multiple data sources, including cloud-based services, databases, and web APIs. It allows users to easily access and integrate data from various sources.

Data Modeling: This ingredient includes the ability to create relationships between data tables and perform complex data transformations. It enables users to create data models that are optimized for analytics and reporting.

Data Visualization: This ingredient includes a wide range of visualization tools, including charts, graphs, and tables, that allow users to explore and analyze data. It provides the ability to customize visualizations to meet specific business needs and create interactive dashboards that can be shared with others.

Task 2.

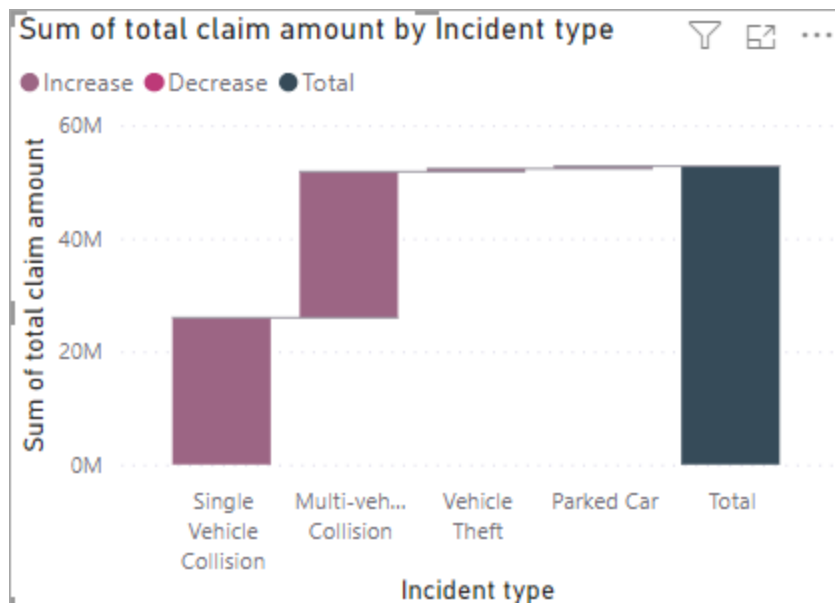
Sum of total claim amount by age



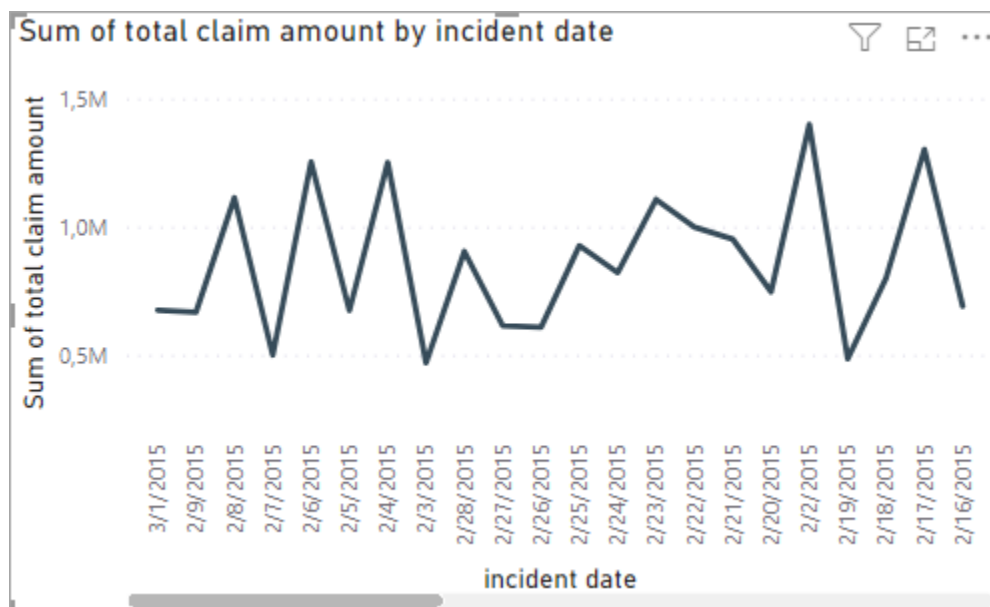
I chose the scatter plot between "age" and "total_claim_amount" because these are two important variables that can affect the cost of car insurance claims.

"Age" can affect compensation costs as younger people may be more likely to cause an accident or risk than older people. Meanwhile, "total_claim_amount" indicates the amount paid for claims, and this is an important indicator in the insurance industry.

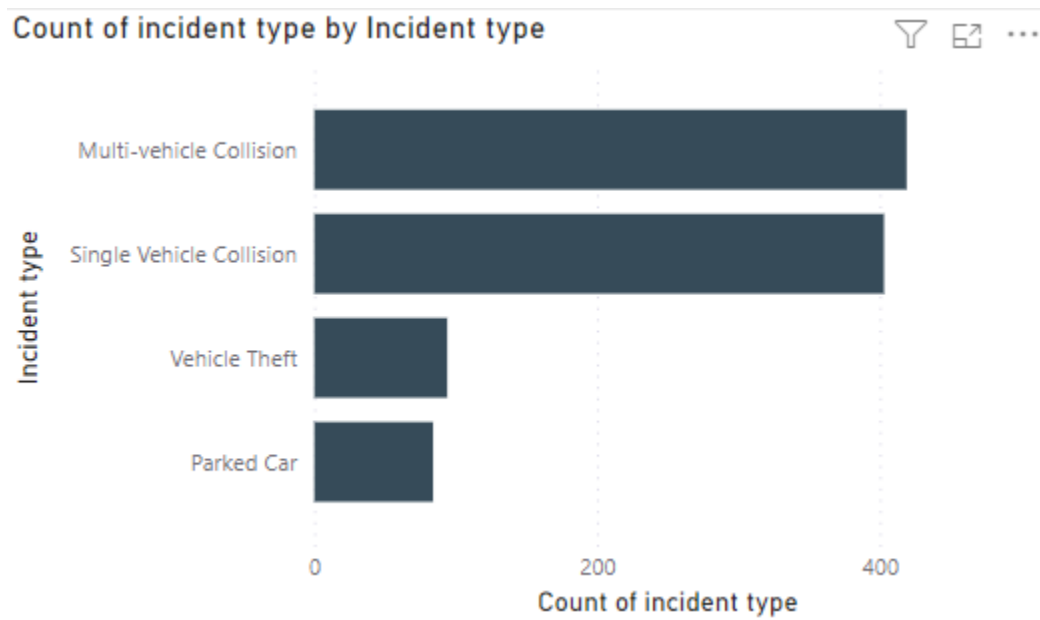
A scatter plot between "age" and "total_claim_amount" can help analyze the relationship between these two variables. In this way, we can use this information to make smarter decisions about how to value. Insurance and risk identification for each customer.



Clearly show the allocation and value change of each incident type in the total claim value. Easily compare values across incident types and discover which incident types have the highest or lowest total claim value.

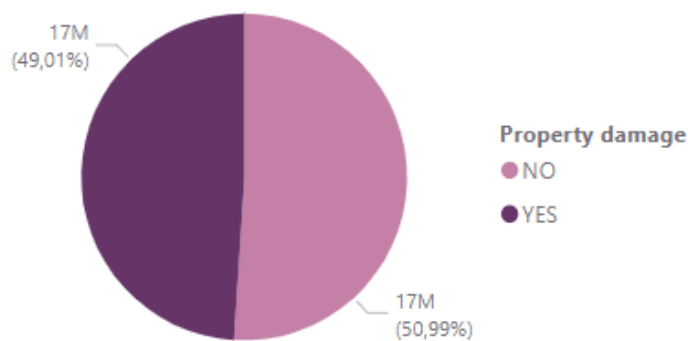


Line charts are great for showing the changing trends of data over time. In this case, I want to know the total amount of claims for breakdowns over time. Therefore, using a line chart allows me to clearly see the increasing or decreasing trend of the compensation amount over time and make future decisions and predictions. Line charts see the volatility and variation of data over the course of time, thereby making it easier for us to analyze and understand the data.



Bar charts are great for comparing different values and making judgments. So it is a good choice for this data set where we need to compare numbers of different incident types.

Sum of total claim amount by Property damage



1000

Property damage

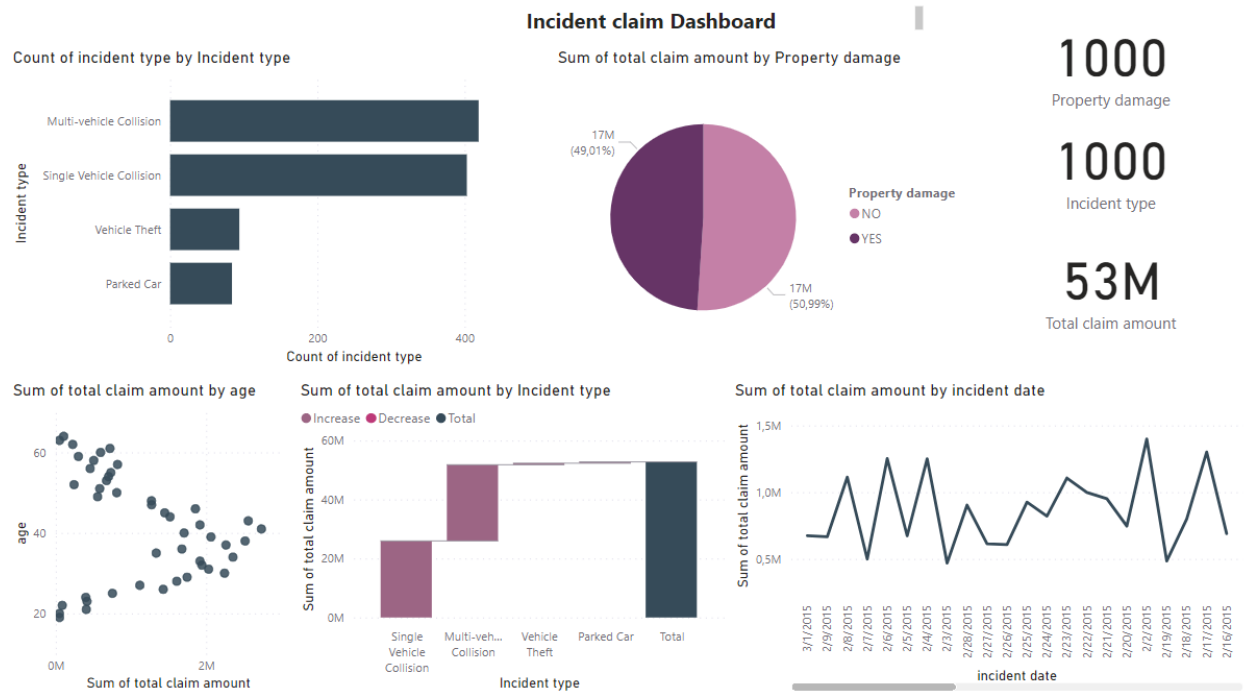
1000

Incident type

53M

Total claim amount

Finally, I want to visualize the percentage of total claims made for each value of "Property damage" as "Yes" and "No" then Pie chart can help to show the percentage percentage of the total amount claimed in a clear and understandable manner.



"Insurance Claims Dashboard" for my dashboard, it gives the reader a clear indication of the focus of the dashboard, which is to provide insights into insurance claims data. The various charts and graphs included in the dashboard, such as the pie chart for "Sum of total claim amount by Property damage", the bar chart for "Count of incident type Incident type", the line chart for "Sum of total claim amount by incident date", the scatter plot between "age" and "total_claim_amount", and the waterfall chart for "Sum of total claim amount by Incident type" each provide different perspectives and insights into the data.

The pie chart shows the proportion of total claim amount by property damage, which can be useful in identifying the types of damages that are most commonly claimed. The bar chart shows the count of incidents by incident type, giving an idea of the frequency of different types of incidents. The line chart shows the total claim amount over time, which can be useful in identifying trends or patterns in the data. The scatter plot allows for the examination of the relationship between age and total claim amount, which can be useful in identifying potential factors that contribute to higher claim amounts. The waterfall chart provides a detailed breakdown of the total claim amount by incident type, showing the contributions of different types of incidents to the overall total.

Overall, the Insurance Claims Dashboard provides a comprehensive view of the insurance claims data, allowing readers to gain insights into the different aspects of the data and make informed decisions based on the findings.