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| Sr no. | Graph Name | Presentation | Insights | Solution |
| 1 | Number of claims in cities. | This graph shows in which state and which city had the incidents and how many claims were made in that specific city/state. | Northbrook had 122 claims.  Springfield had 157 claims.  Northbend had 145 claims.  Columbus had 149 claims.  Hillsdale had 141 claims.  Arlington had 152 claims.  Riverwood had 134 claims.  This indicated that most accidents took place in Springfield as most of the claims are made in it. Northbrook has the least number of claims, showing that it has the least incidents. | Springfield, Arlington, and Columbus have the highest number of claims therefore laws should be imposed and the laws should be revised. |
| 2 | Average of total claims based on incident severity. | This graph displays the incident severity which is Trivial Damage, Minor Damage, Major Damage, and Total Loss. Also how much amount was average claimed based on the type of incident severity | In the data, for Trivial Damage, the average amount claimed is 5000 for 90 customers. Similarly for the Minor Damage for 354 customers, and Major Damage for 276 customers the average claimable amount is 49000 and 64000 respectively. For Total Loss, the amount dispersed is 62000 for 280 customers. | For an insurance company, less is the claimable amount more could be profit. Keeping business upfront, the claimable amount should be revised and also other factors from the incident should be considered for the dispersation of the insurance claimable amount. |
| 3 | Percentage of fraud reported based on gender. | A pie chart presentation was made to determine which gender is mostly involved in fraud cases. | 12.1% of males are reported to be a fraud.  34.2% of males are reported not fraud.  12.6% of females are reported to be fraud.  41.1% of females are reported not fraud.  126 females and 121 males are the culprits. | Fraud detection features should be used by the company, based on the insured’s education, age, hobbies, and relationship status. |
| 4 | Age of vehicle and claimed amount. | A bar chart is used to determine the claimable amount based on the vehicle’s age. | Vehicle age ranging from 0 – 5 has a max average amount of 56279. From age 5-10 group has 57106 max average amount. For groups 10-15 max average amount is 53.9K and for groups 15-20 is 58.4K | The company should also revise the claimed amount. Other factors such as incident type, age, and incident severity also will impact the claimable amount. Therefore extra premiums should be charged based on the vehicle’s age, vehicle type, vehicle MRP, etc. |
| 5 | Total Fraud Reported. | A donut chart indicated the percentage of fraud reported. | A total of 24.7% which is 247 frauds are reported in the data. 75.3 which is 753 are reported as no fraud ie. It is a genuine case | Fraud detection features should be used by the company, based on the insured’s education, age, hobbies, and relationship status. |
| 6 | Incident type and vehicle claim monthly and incident severity. | This bar and line graph shows the incidents that happened in a day for a month, with incident severity for a day | This is a graph for a month's data, where each day incidents are recorded and split into incident severity. The data is from the 1st of January to the 1st of February. Most incidents took place on the 1st of Jan. Using this graph gives insights such as on which day the incident took place with total incidents in a day. | The company should interrogate the incident of the first day as it is what highest incident, using this data company can manage claims effectively. |
| 7 | Total injuries claimed and incident severity. | Based on incident severity how many injuries took place in a month? | This graph shows which incident had which type of injuries and the number of injuries. It can help to interpret in many incidents severity how injury and its severity took place. | It will benefit the company as a company can provide claimable amounts based on the incident severity and injury severity thus helping to manage claimable amounts. |
| 8 | Most Incidents period. | This pie chart helps to determine when did maximum incidents took place in a day. | Most of the incidents happened at Midnight and Morning as much as 24.4% and 23.9%. second would be night with 20.5% of incidents. | Based on the incident period company can impose a surplus perimum if the customer is traveling during Night, Midnight, or morning. Also, fast vehicles should be surplus charged. |
| 9 | Average of total claim amount by year. | This area graph helps us understand when the policy started and over the years how much the customers can claim. It is an average claimable amount vs policy year. | Policies from 1990 to 2015 are provided in the data. In 1990 the average amount of 56K was claimable. Over the years the claimable amount decreased except for the year 1993 as it had an average of 60.7K as the claim amount. Since 2011 this claimable amount increased and remained nearly constant till 2014. | Companies can benefit from such data as they can charge premiums based on the age of the vehicle. Also, customer should benefit if they have not claimed their insurance based on years. |

***Insurance Analysis***

Here is the interpretation of the insurance analysis where we discover some important insights from the dataset.