**The Car Accidents in UK from 2005 to 2015**

**1 Introduction**

**1.1 Description of the Background**

Car accident, also called traffic collision or car crash, occurs when a vehicle collides with another vehicle, pedestrian, animal, road debris, or other stationary obstruction, such as a tree, pole or building. Car accident often result in injury, disability, death, and property damage as well as financial costs to both society and the individuals involved. Casualty figures from car accident attract less media attention than other, less frequent types of tragedy.

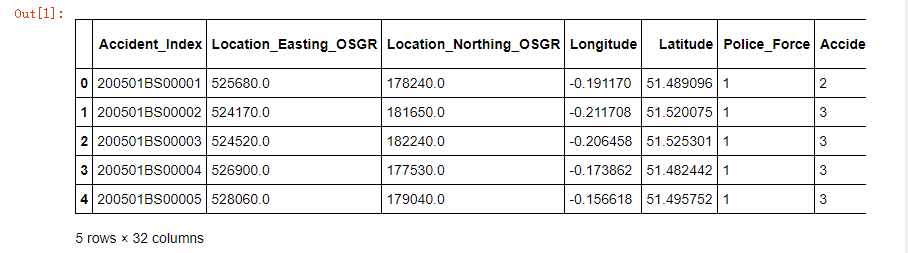
A number of factors contribute to the risk of collisions, including vehicle design, speed of operation, road design, road environment, driving skills. Method Collect the investigation data of the car accidents of UK, analyze the detail items such as the occurrence time, accident cause, rescue level and so on.

**1.2 Data Description**

To consider the problems, we can list the data as below: I found the data of UK car accidents from Website and upload to Github. I cleaned the data and set up our own data tables in most cases.

**1.3 Methodology**

As a database, I used GitHub repository in my study. My master data which has the main components 32 information.



The number of rows by number of columns is

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Then I create a function to categorize accident severity:

|  |  |
| --- | --- |
| Accident severity = 1, | Fatal |
| Accident severity = 2 | Serious |
| Accident severity = 3 | Slight |

**Results**

We can answer the following questions:

1. Which days have the highest number of accidents?
2. Which hours on the day have the highest number of accidents?
3. Is the number of accidents increasing or decreasing?
4. What about accident categories?
5. Is there any trend for accident categories within a year?
6. What about the day of the week?
7. On which hours do accident categories happen?

**Conclusion**

* The lowest number of accidents is happening on December 25 (christmas day).
* Also, we notice that the following days, in christmas' holidays, have low averages.
* The 10th, 11th and 12th of each month are the worst days.
* A lower number of accidents is occuring in the first day of each month.
* Accidents mostly occur between 15:00 and 18:59.
* The hours between 20:00 and 6:59 have a lower average number of accidents.
* The three categories of accident are more likely to occur in October.
* They are less likely to occur in February.
* The fatal accidents are more likely to occur on saturday and less likely to occur on wednesday.
* Other accidents are more likely to occur on friday and less likely to occur on sunday.
* All accident categories are more likely to happen between 17:00 and 18:00.
* They are less likely to happen between 4:00 and 5:00.