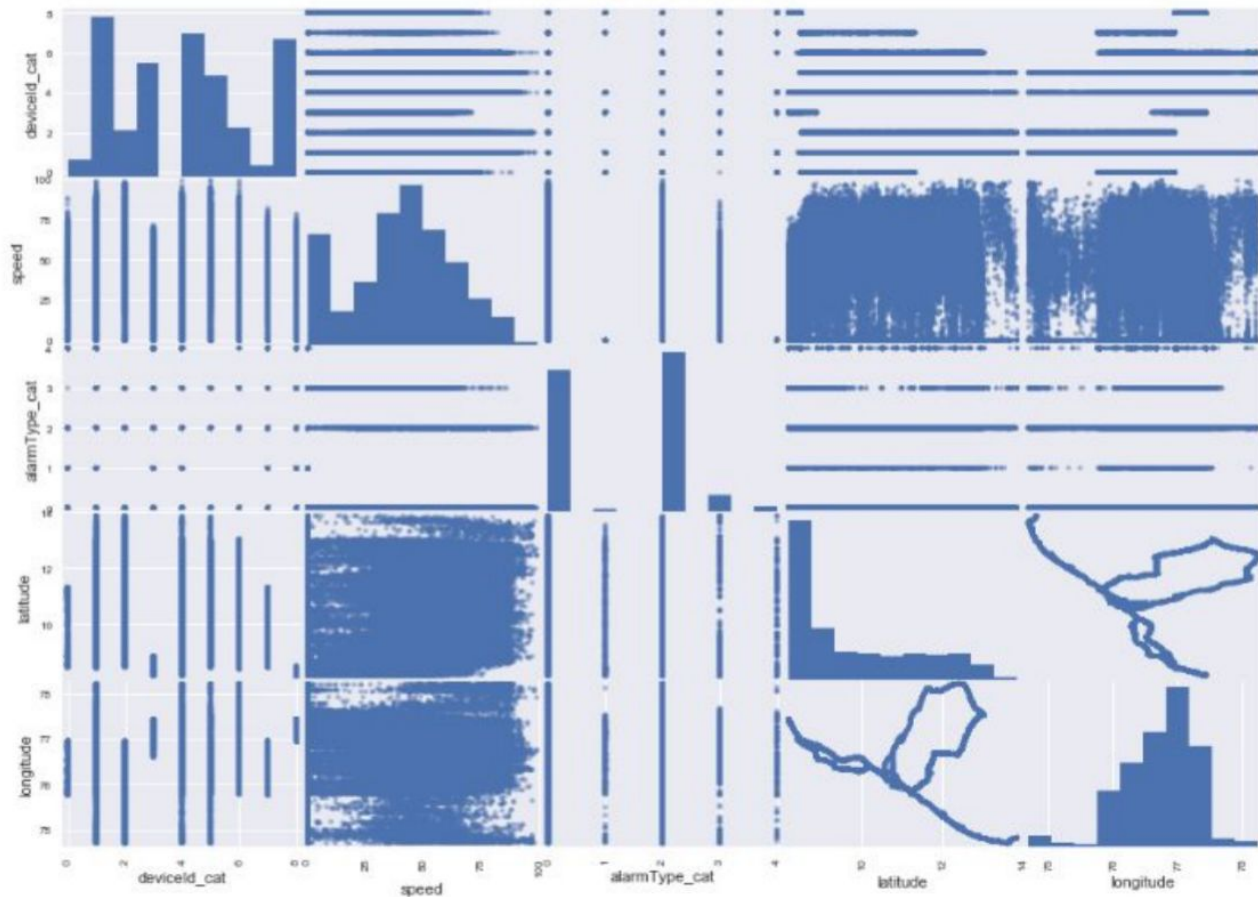


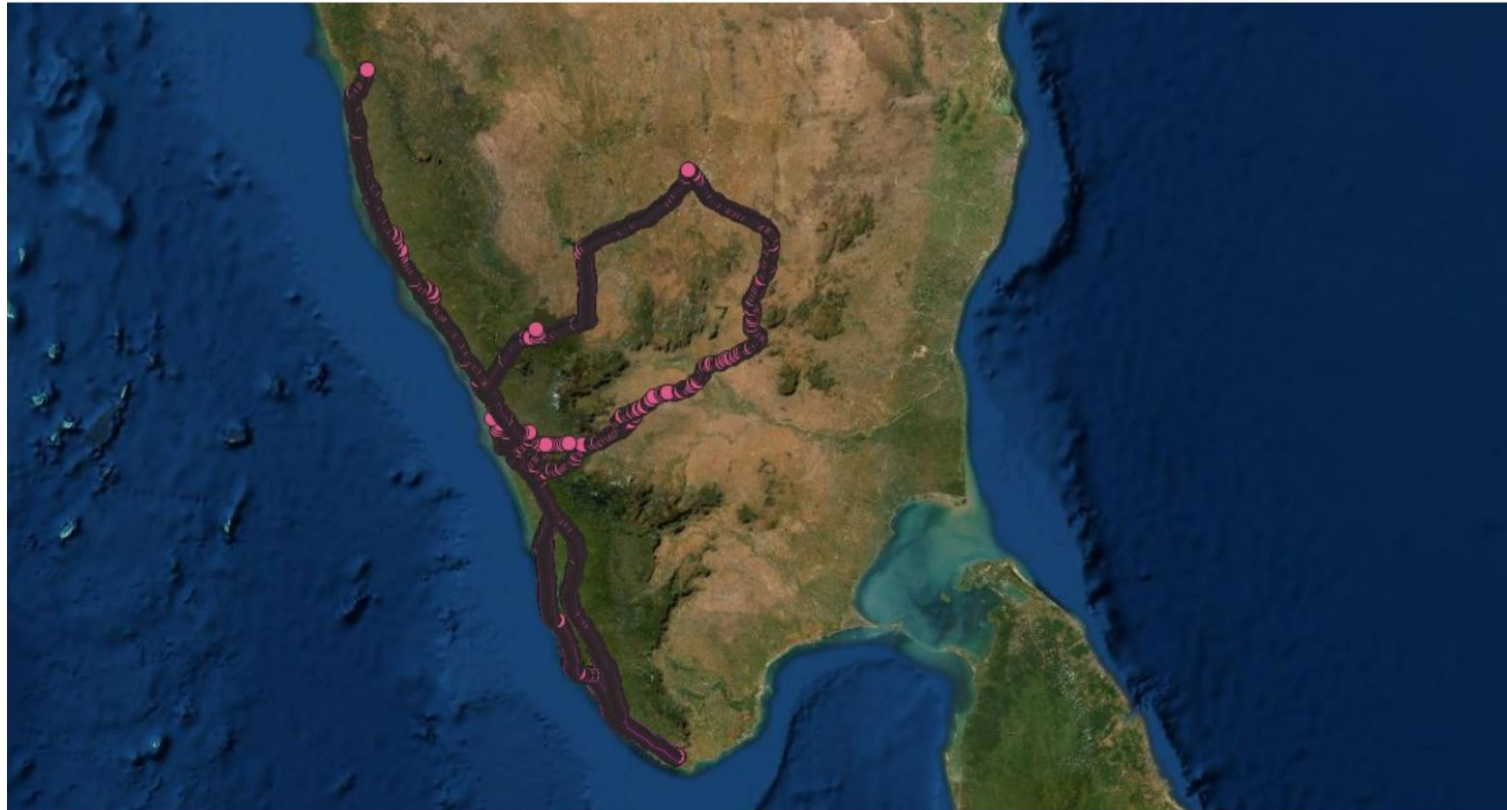
Exploratory Data Analysis

- Plots between each pair of attributes.

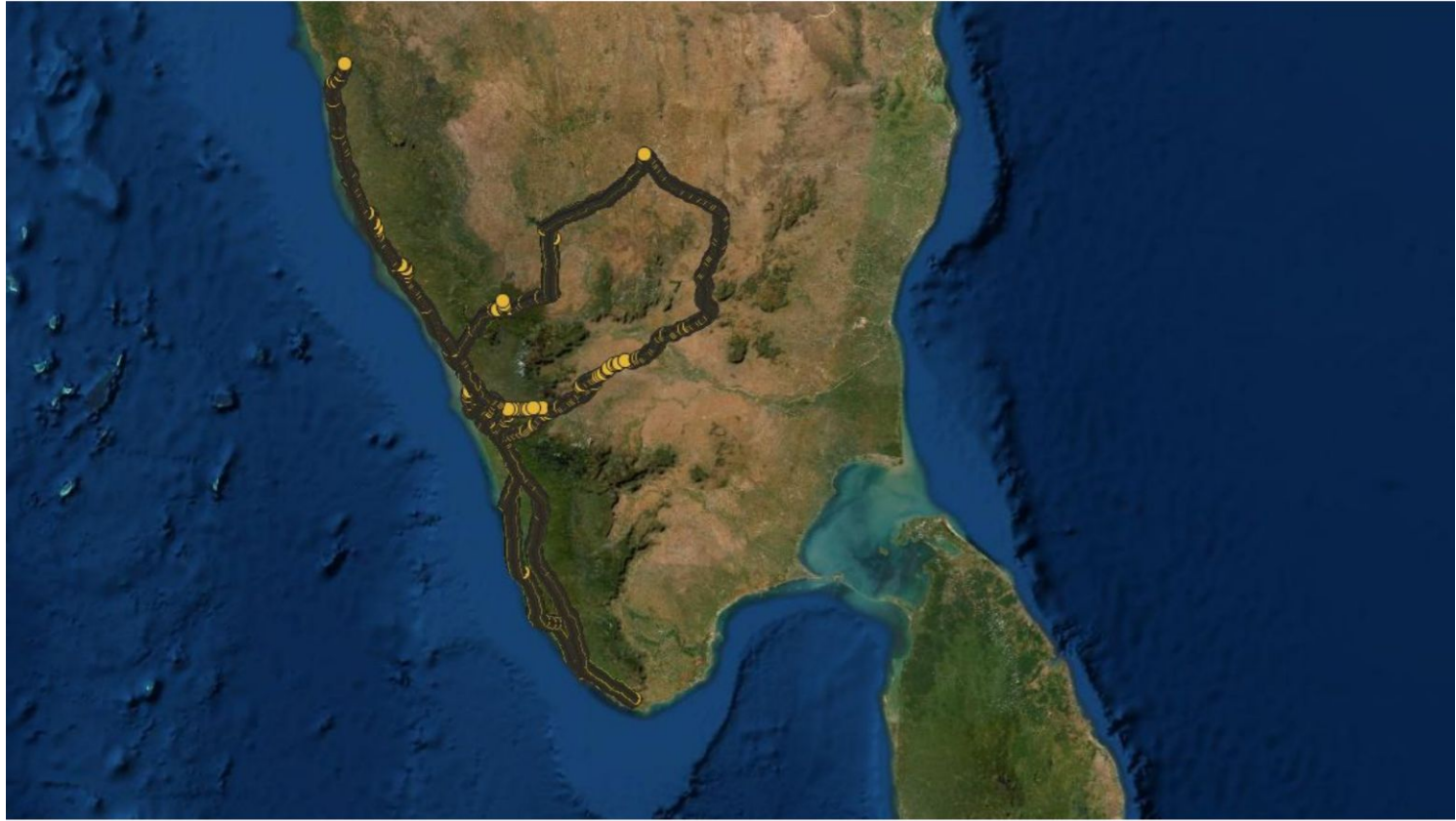


Traffic and Road Mishaps Prediction

Alarm Type: FCW



Alarm Type: HMW



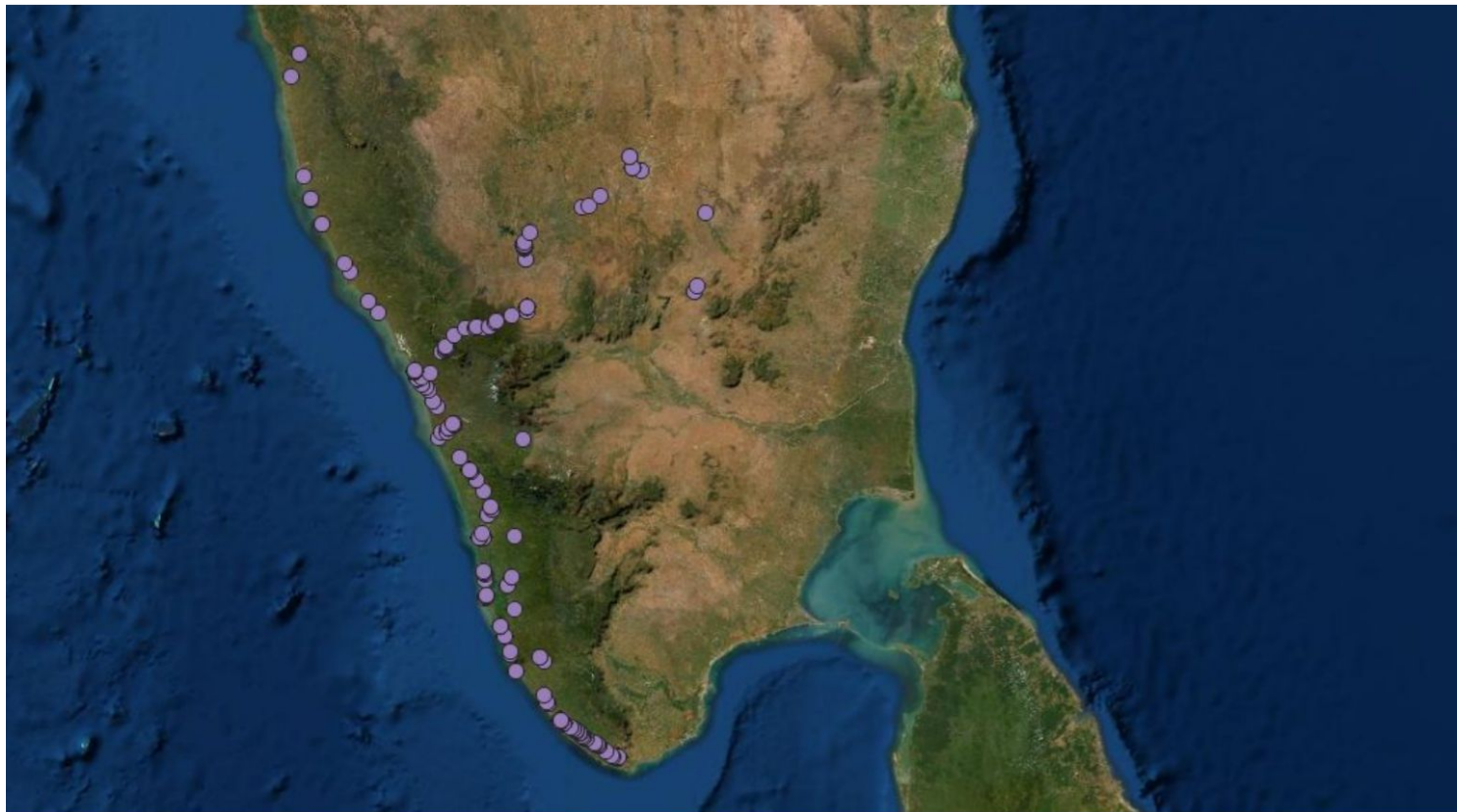
Alarm Type: PCW



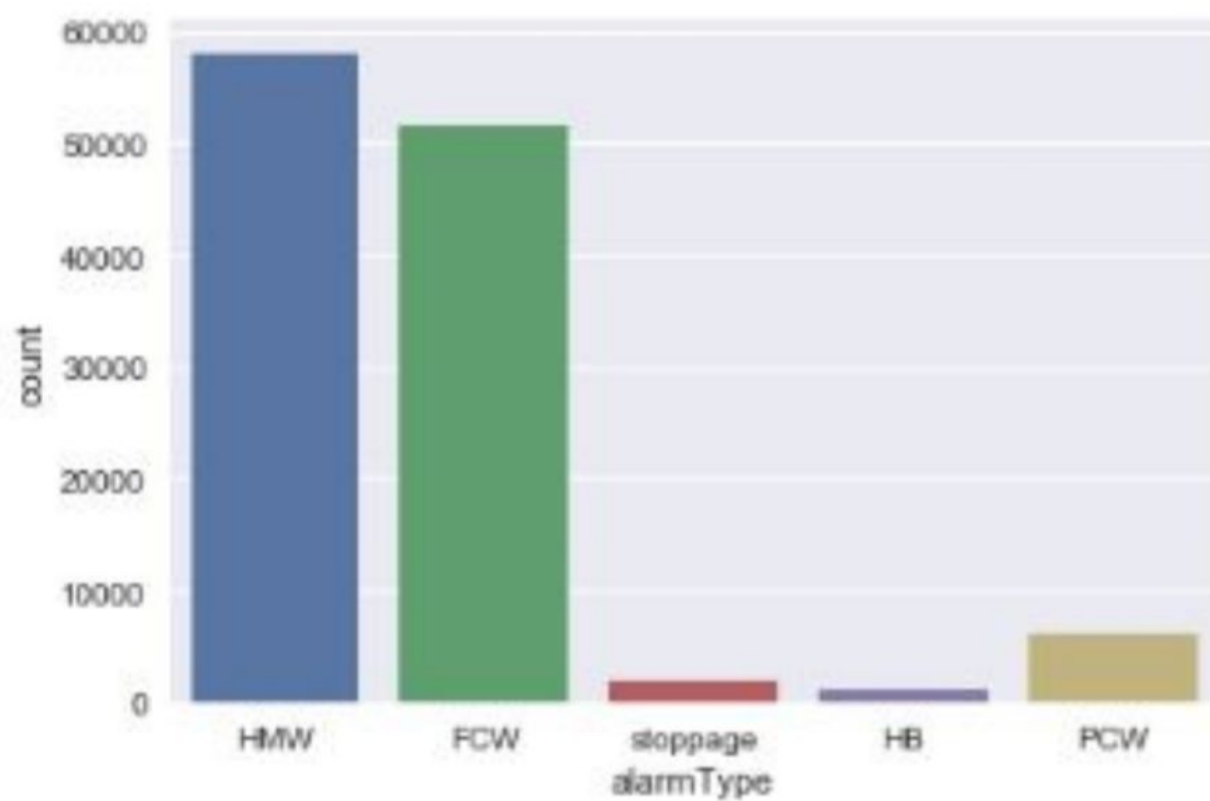
Alarm Type: HB



Alarm Type: Stoppage

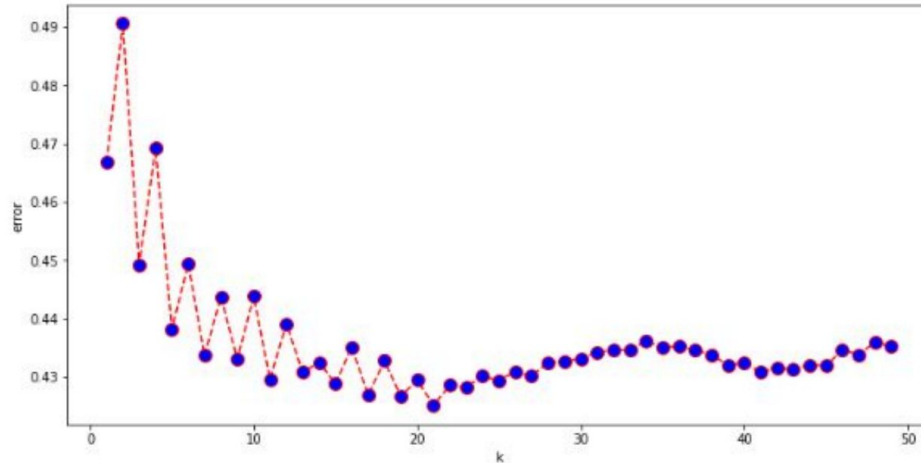


alarm type density



Choosing the right K value for KNN

- A suitable K value ($k=21$) is selected on a trial and error basis. However, to improve the results the following graph is plotted between mean error and corresponding k.

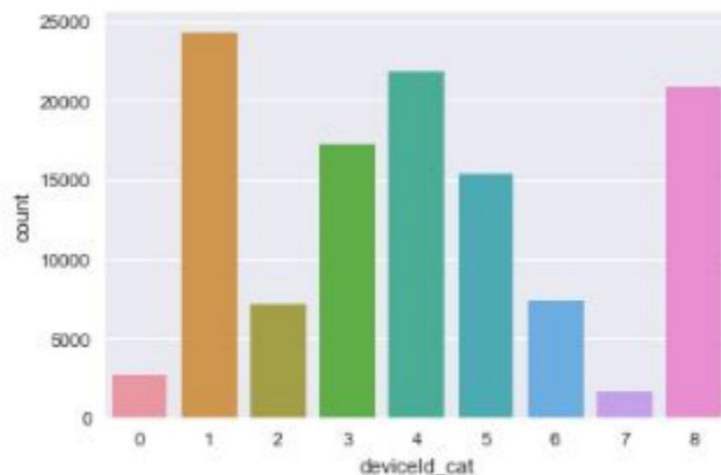


Driver Analysis

- Basic analysis with vehicle ids.

```
12DF03C6:19636436681228288687 : 3
12DF03C6:19978048393314304687 : 8
12DF03C6:19890203641970688685 : 6
12DF03C6:19317455059550208687 : 0
12DF03C6:19727335125463040688 : 5
12DF03C6:19613968860508160686 : 2
12DF03C6:19523068255842304686 : 1
12DF03C6:19683837391187968688 : 4
12DF03C6:19890368935358464685 : 7
```

vehicle density



VISUALISATION
FOR
FREQUENCY OF ALARM TYPE W.R.T VEHICLE ID

- Insights from the graphs:

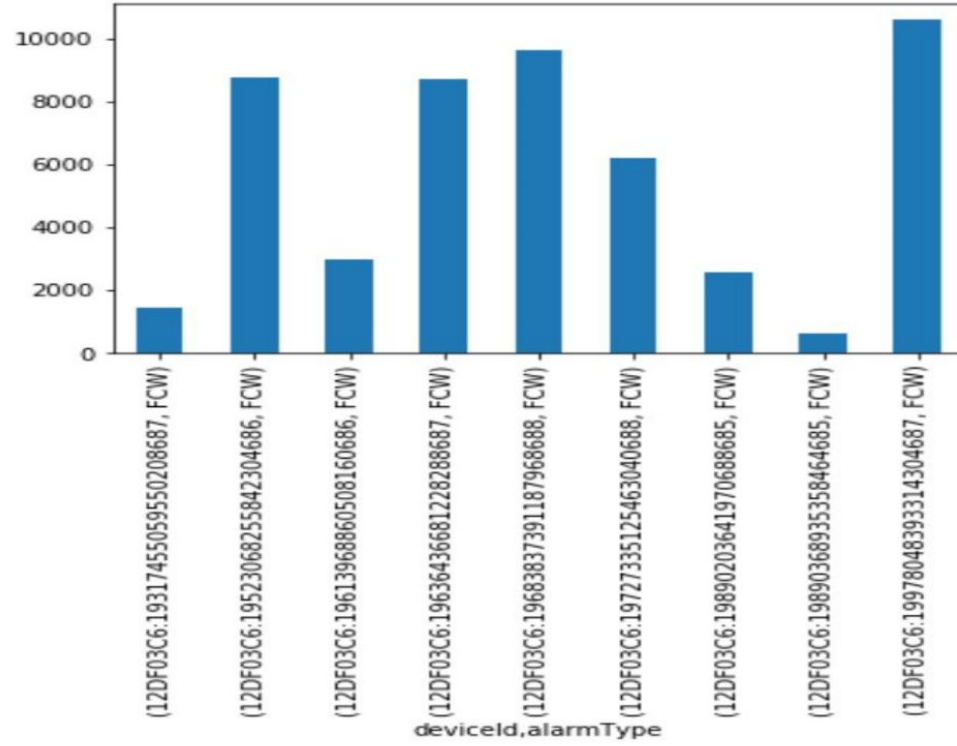
Let us assume,

12DF03C6:19317455059550208687 as vehicle 1
12DF03C6:19523068255842304686 as vehicle 2
12DF03C6:19613968860508160686 as vehicle 3
12DF03C6:19636436681228288687 as vehicle 4
12DF03C6:19683837391187968688 as vehicle 5
12DF03C6:19727335125463040688 as vehicle 6
12DF03C6:19890203641970688685 as vehicle 7
12DF03C6:19890368935358464685 as vehicle 8
12DF03C6:19978048393314304687 as vehicle 9

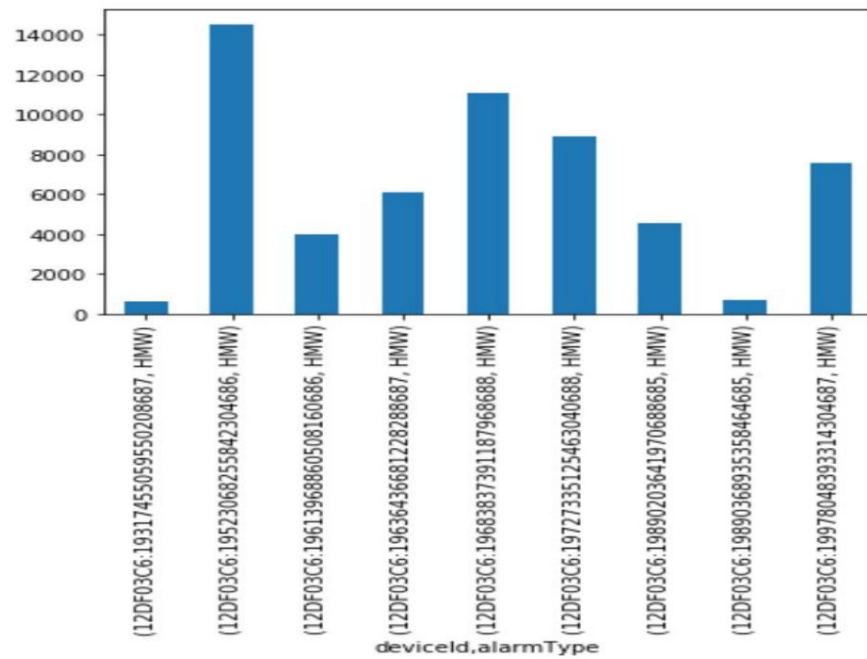
Based on the graphs illustrated below,

We can conclude that the frequency of alarm types is the highest for vehicles 2,4,5 indicating that the driver has to take more precautions and safety considerations while driving. Therefore a warning can be given to drivers of these vehicles.

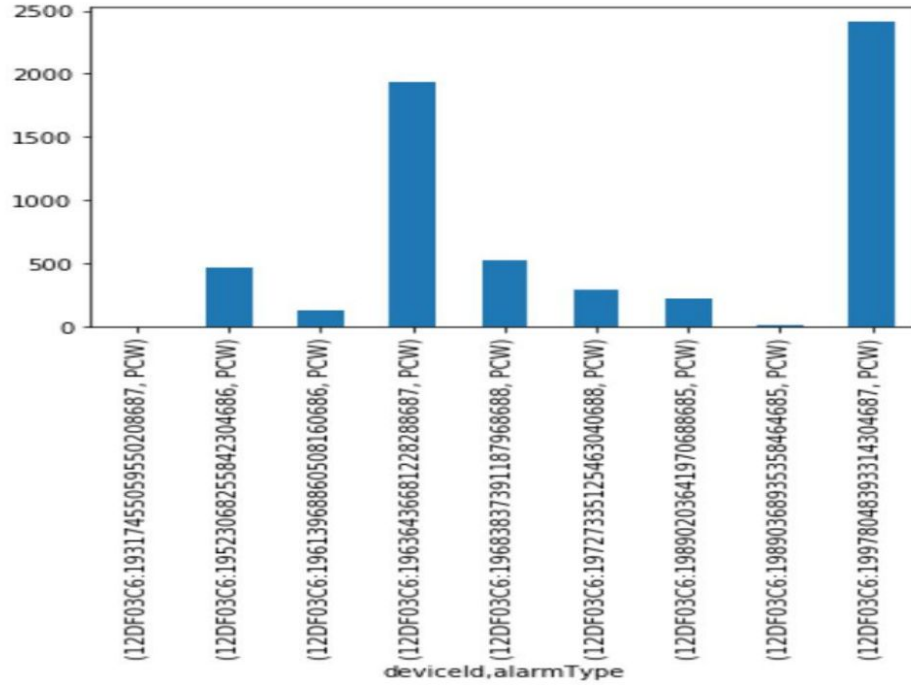
FCW



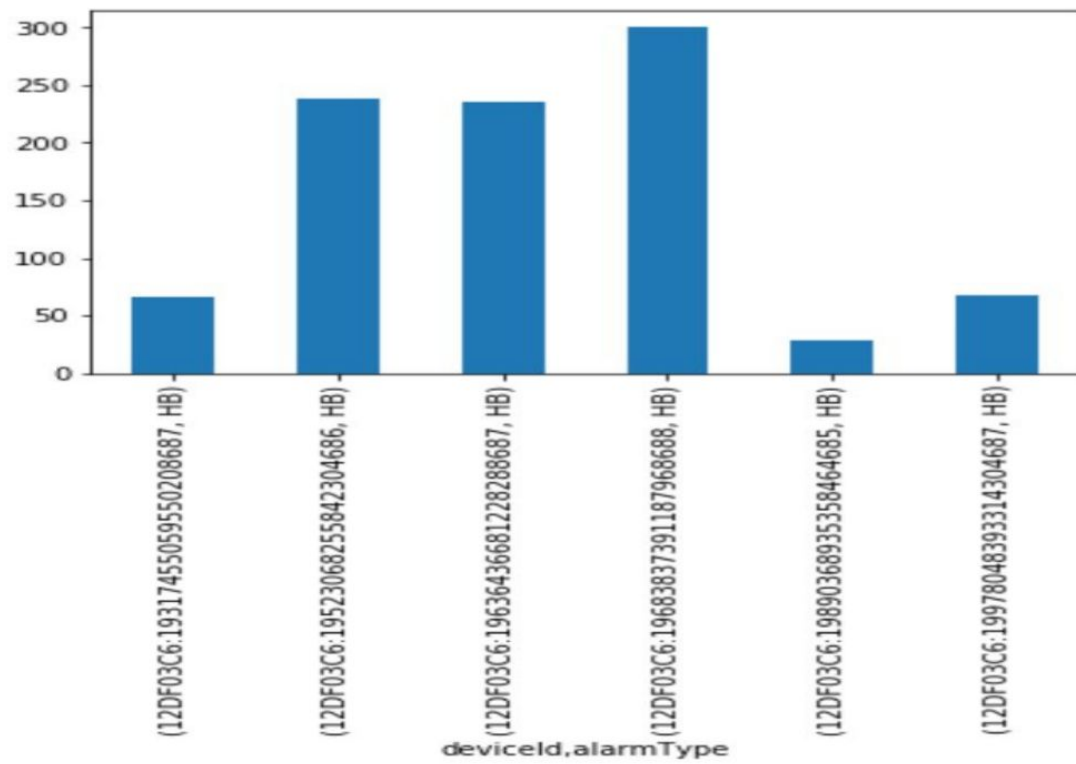
HMW



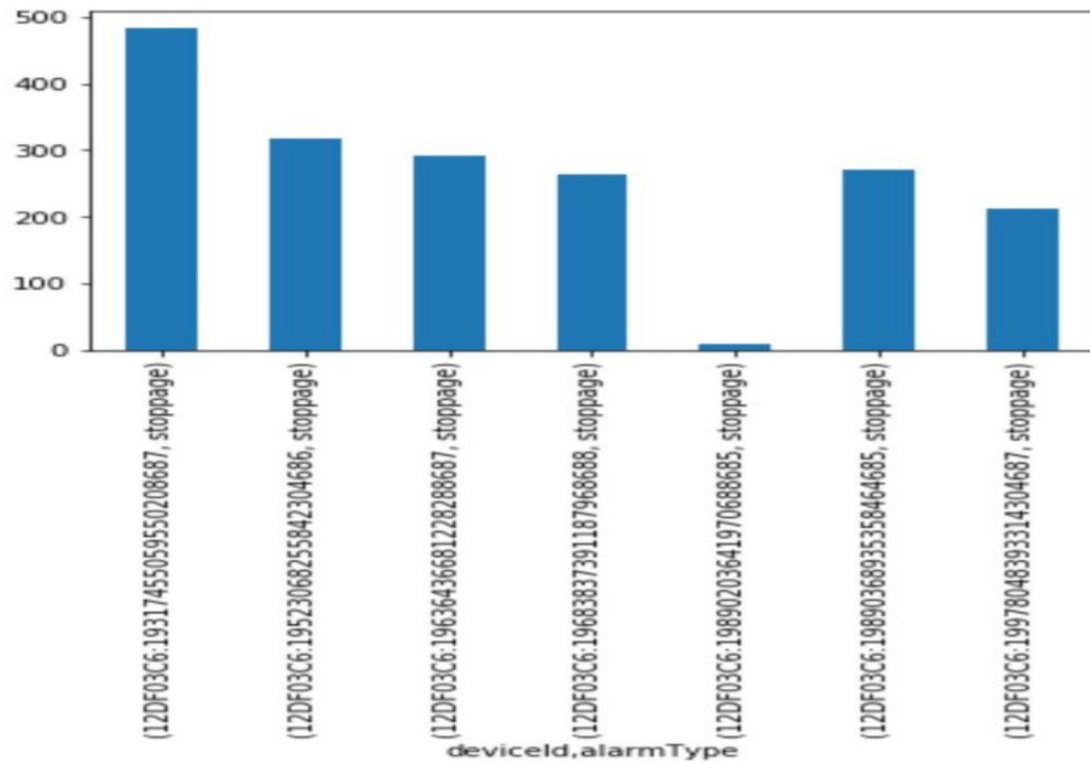
PCW



HB

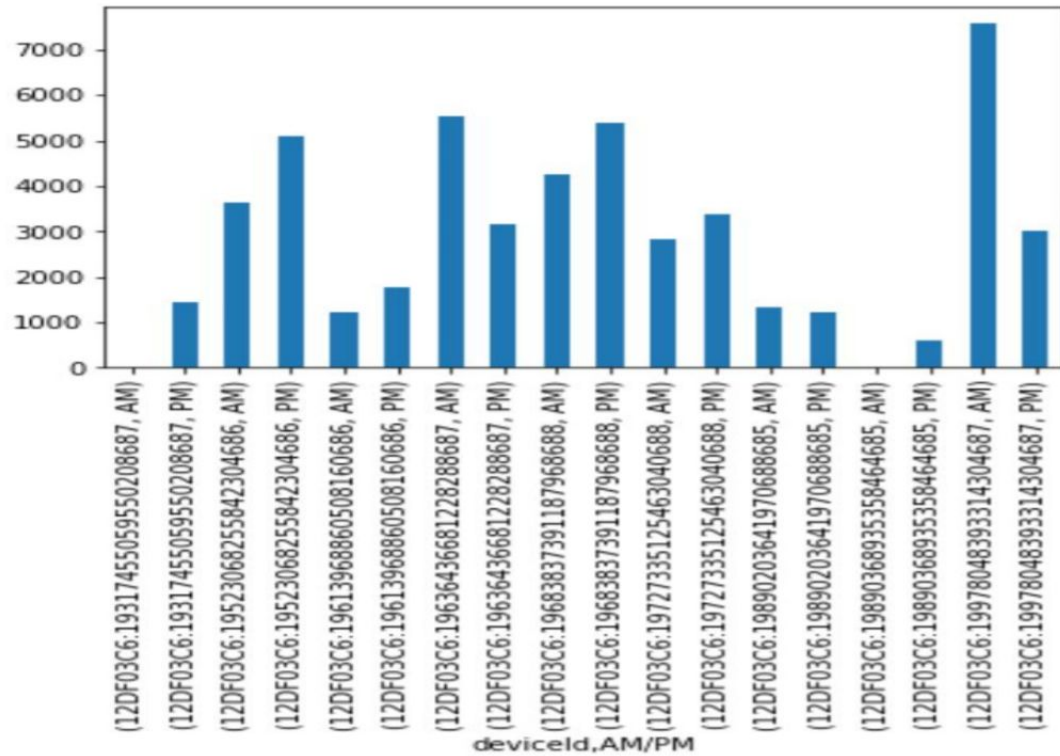


STOPPAGE

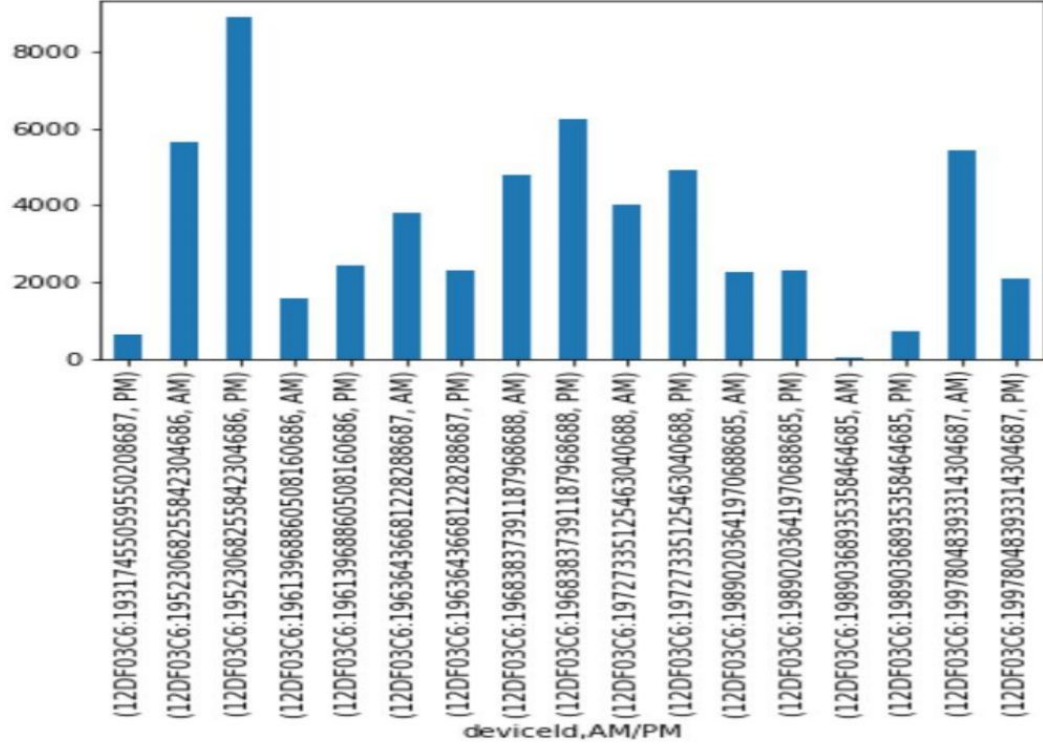


VISUALISATION
FOR
FREQUENCY OF ALARM TIME W.R.T TIME(AM/PM)

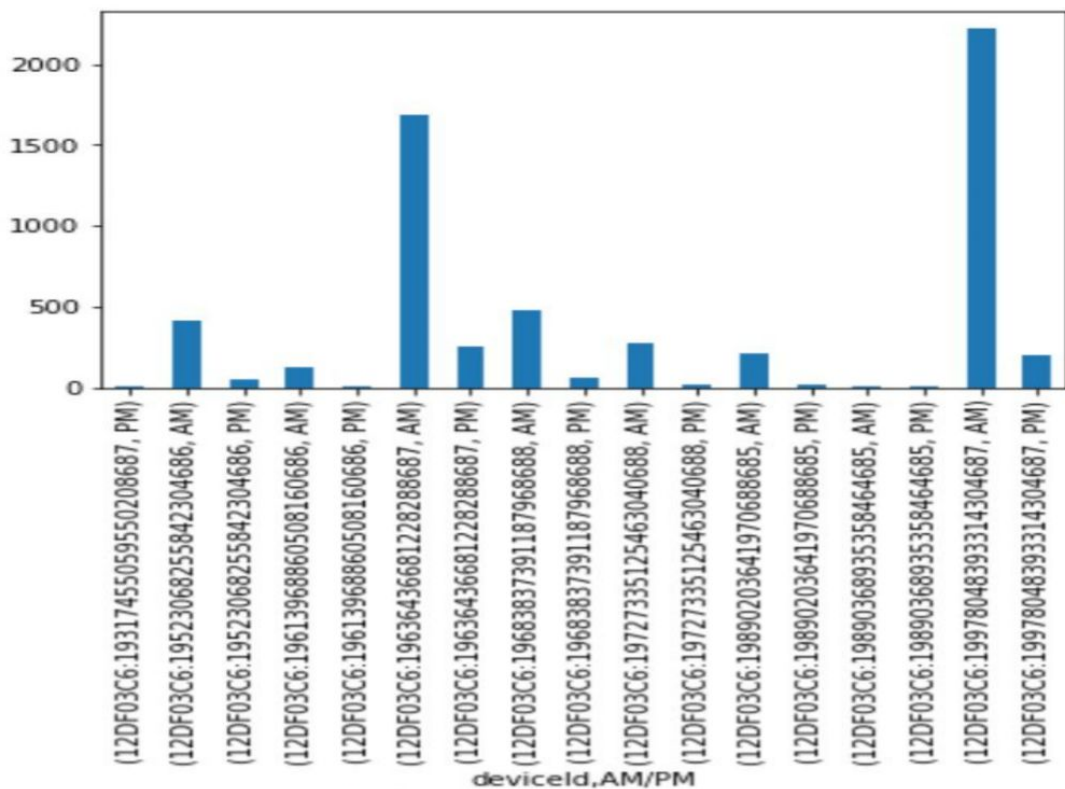
FCW



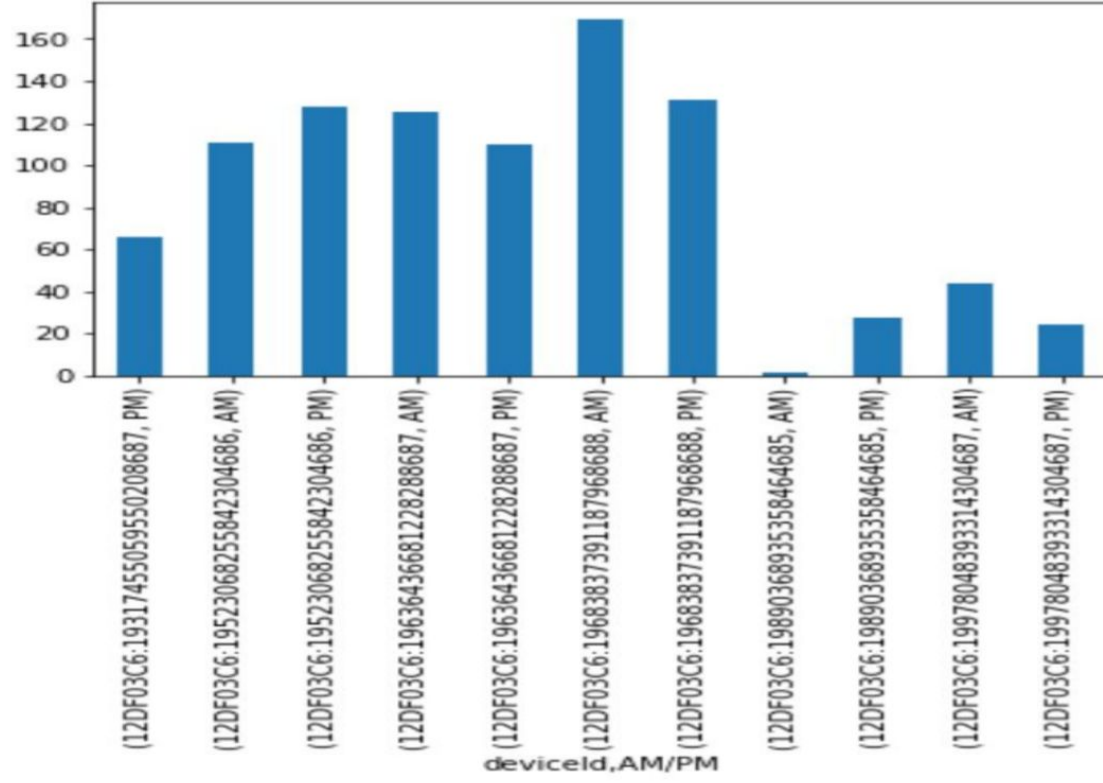
HMW



PCW



HB



STOPPAGE

