**Data Analytics Project**

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CSE-408L Data Analytics lab

Submitted by:

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Class Section: **B**

“On my honor, as student of University of Engineering and Technology, I have neither given nor received unauthorized assistance on this academic work.”

Student Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Submitted to:

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**Project Explanation**

* In this Project I have taken real life data of Police department.
* In this project I have solved different problem which I have mentioned in jupyter notebook.
* The data is about car driver in which both male and female are present.
* They have violated the traffic rules.
* In this project I have done the analysis of these violations that,
* Who has mostly violated the traffic rules either male or female?
* For speeding, were men or women stopped more often?
* I have compared the age distribution of drivers for each violation.
* I have found the mean of “stop duration” for all drivers.
* Finally, I compared different relationship through bar chart and graph.
* First of all, I read the dataset in jupyter notebook.
* Then I cleaned the data I,e I replaced the missing data by the mean of present data in column.
* I dropped that column also which was completely empty.
* After data cleaning, first I calculated either men are more stopped or women for speeding.
* Then I checked that does the gender affect who gets searched during stop or not.
* Then I calculated the mean of stop duration of all drivers (both male and female).
* Finally, I compared the age distribution of driver for violation.
* After that I plotted all data graphically for better visualization.
* First, I plotted Bar chart for male and female drivers violated Traffic rules and regulations
* Then I plotted Graph for no of drivers (male and female separately) vs violation.
* Finally, I plotted Graph for Driver counts (both male and female) vs violation type

**Conclusion:**

In conclusion, it can be seen that the majority of violations are committed by male drivers, with over 75% of violations being committed by drivers over the age of 40. The mean stop duration for all drivers, both male and female, is 12.84 minutes.