# One Page Report on: ROAD ACCIDENT AND NON-ACCIDENT DETECTION

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Abstract:

The dramatic increase in road traffic accidents in the world is causing serious problems in every aspect of human lives. the traffic accident data is only used to conduct a rudimentary statistical analysis and data mining efforts which results only in patterns and statistics. The main targets of this road accident data classification are to identify the major and key factors that cause the road traffic accident and form policies and preventive actions that would reduce the accident severity level. Machine learning algorithms are used to analyze the data, extract hidden patterns, predict the severity level of the accidents and summarize the information in a useful format. In this work, we have applied different machine learning classification algorithms and discussed here the six algorithms with high accuracy and best classification performances such as Fuzzy-FARCHD, Random Forest, Hierarchal LVQ, RBF Network (Radial Basis Function Network), Multilayer Perceptron, and Naïve Bayes on road traffic accident data set obtained from UK road traffic accident of the year 2016. The data set contains information on all road accident casualties across Calderdale. The results from our analysis show that Fuzzy-FARCHD algorithm is effective to classify the dataset and achieves an accuracy of 85.94%. In this work, we have revealed that Lighting Conditions, 1st Road Class & No., Number of vehicles are the key features in selecting the attributes.

Block/ Flow Diagram:
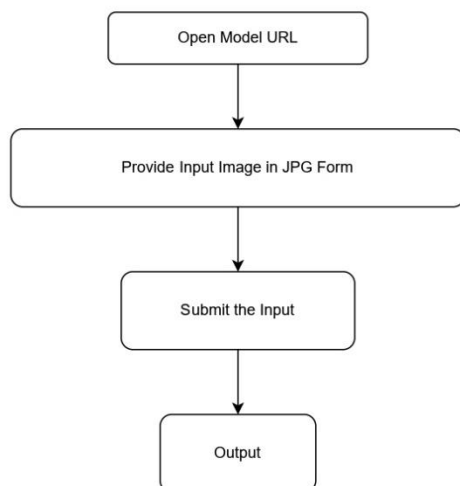
Output:
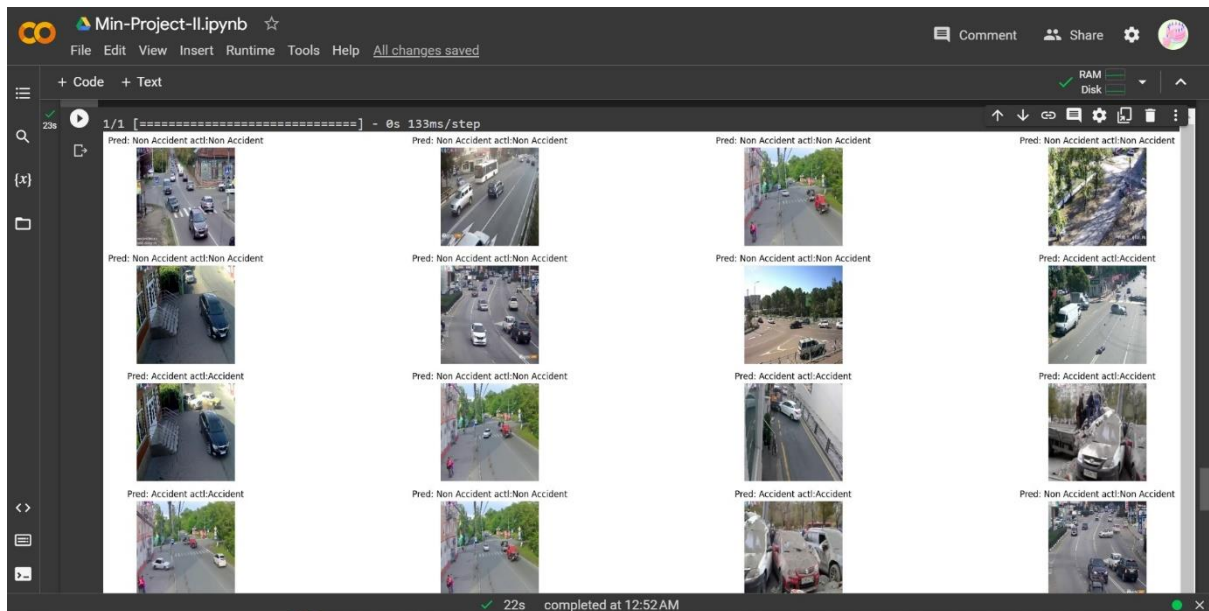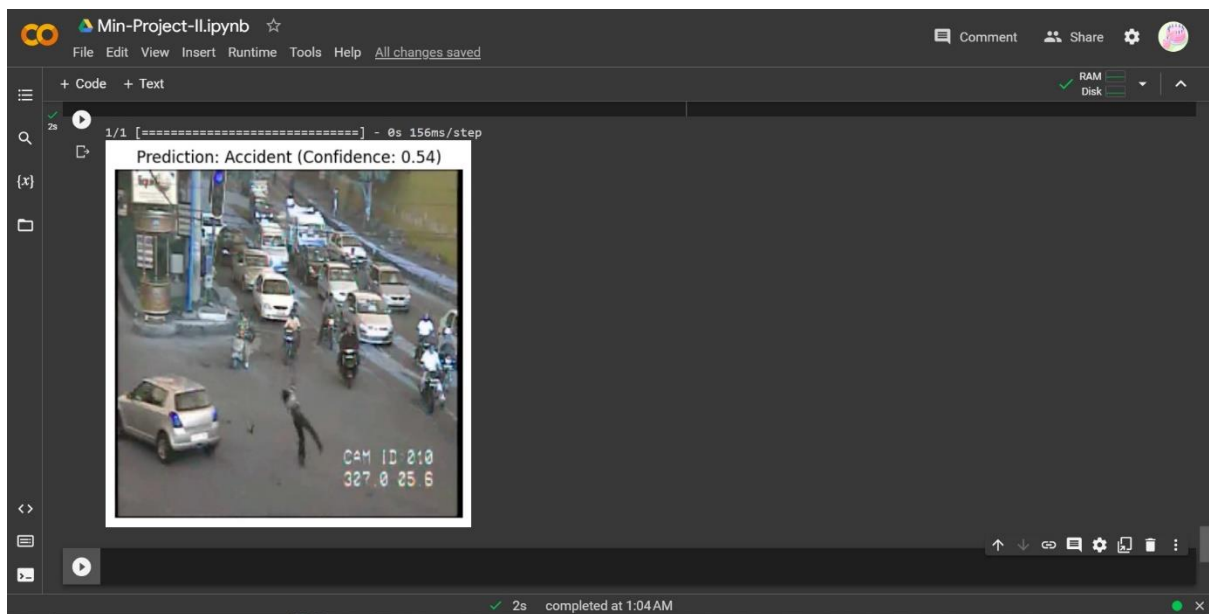
Conclusion:

The Road Accidental and Non-Accidental Image Classification project has great potential to improve road safety. By developing a powerful system that can analyze images of road accidents, we can gain valuable insights and make better decisions to prevent accidents and improve safety.The system can be integrated into platforms used to analyze accidents, allowing us to understand the causes and patterns of accidents more deeply. With this knowledge, we create targeted interventions and policies to make our roads safer for everyone.