**Advance Software Engineering**

**09/05/2019**

**Group 1**

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**Crime Rate Analysis Using Machine learning**

We are proposing a system that will work on a large dataset of criminal activities for a specific or multiple type of crimes happening in a region. The initial system will be able to visualize the geographical regions of the criminal activities as well as the graphical representation of the criminal activities. The second phase of the system will focus on predicting and analysis of the criminal data based on different features and aspects. Through the data set the system can distinguish the dangerous areas and can predict the patterns of criminal activities. The system will be able to generate a report showing the time-based analysis with respect to the type of crime which will help the security departments to take necessary measures at a specific region to prevent any chance of criminal activity.

We would try and analyze the rise and fall in the Stock Market and see if the inflation affects the crime rate!

Furthermore, our system would theoretically be able to predict a probability of crime at a certain location depending on locality, time of the year and inflation rates!

Using Maps to get nearest stores, house rates, nearest police offices for analysis!

Plan B:

**Sentiment based Movie rating system**

We are looking at an automated system involving a combination of machine learning, web scrapping, semantic summarization and web app development to rate movies online!

We usually come across movie rating websites where users are allowed to rate ad comment on movies online. These ratings are provided as input to the website rating system. The admin then checks reviews, critic’s ratings and displays an online rating for every movie. Here we propose an online system that automatically allows users to post reviews and stores them to rate movies based on user sentiments. The system now analyzes this data to check for user sentiments associated with each comment. Our system consists of a sentiment library designed for English as well as hindi sentiment analysis. The system breaks user comments to check for sentimental keywords and predicts user sentiment associated with it. Once the keywords are found it associates the comment with a sentiment rank. The system now gathers all comments for a particular movie and then calculates an average ranting to score it. This score is generated for every movie in the system. The system also sorts and displays top rating movies as per analysis and calculates a top ten list automatically. This provides an automated movie rating system based on sentiment analysis.