**A COMPARATIVE ANALYSIS OF MACHINE LEARNING ALGORITHMS**

**Abstract:** India is a major player in the global pharmaceutical sector. There is a large hub of budding engineers and scientists in the nation that can take the business to the next level. Antiretroviral drugs manufactured in India currently account for more than 80% of the world's AIDS medicine supply. They are turning to dubious medical therapies in some circumstances, and to the underground market for life-saving pharmaceuticals in others. Hence our project aims to solve this by developing a medicine recommendation system so that pharmacists can know in advance what medicines are the medicines being bought together the most,and keep stocks accordingly. We do not recommend which medicine is to be taken,rather the focus is on finding the drug combinations bought frequently together so that an idea can be had of the most-selling medicines;thus keeping their stock replenished would eliminate the black market,help to earn profits and help the customers.

1. **Individual contribution and findings** : I am responsible for the main ideation attached with the project. The sole aim of the idea of the project is to benefit the common people with proper diagnostic and also helping chemists to maximize their sale with the motive of welfare of the people.
2. I am responsible for generating and debugging the codes of the ML model (APRIORI algorithm) on google COLAB to formulate a strong recommendation idea , that will predict that if a customer buys Medicine ‘A’ then what likely he/she would buy Medicine ‘B’.
3. My final contribution is that I have contributed to the building algorithms of ECLAT model in comparison with the apriori model for a better understanding of the relationships between association rule learning models .

**Individual contribution to project report preparation:** I am responsible for generating and debugging the codes of the ML model (APRIORI and ECLAT algorithm) on google COLAB to formulate a strong recommendation based system to work for the welfare of the needful community .

**Individual contribution for project presentation and demonstration:** I am responsible for preparing the ideation part and the portion which differentiates the Apriori algorithm to its counterpart ECLAT algorithm .

**Digital Signature Digital Signature**



Full Signature of Student : Full signature of the Supervisor/s:

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**(\*) without digital signature the individual project contribution report will not be accepted**