CAPSTONE PROJECT 1 Proposal

Predicting Pain Relievers Based on Age and Satisfaction Level

According to researchers both prescribed and non-prescribed use of pain relievers, as well as rates of opioid-related mortality and admissions to emergency departments, have increased in the last few years. There are many different pain relievers, and each one has advantages and risks. Some types of pain respond better to certain medicines than others. Each person has a different response to a pain reliever for the same type of condition.

The dataset used in this project was acquired from kaggle where uploaded on kaggle by scraping the WebMD site (https://www.kaggle.com/rohanharode07/webmd-drug-reviews-dataset). The dataset contains 12 variables but in this project we utilize only 7 variables which includes: age, condition, drug, ease of use, effectiveness, satisfaction level of users and the gender of responders.

The aim of this project is to identify the users' response for different pain reliever for the same type of condition and answer the questions below:

i. Predict the type of pain relievers for which type of condition based on drug rating (satisfaction), age and sex?

ii. Predicting the rating (satisfaction level) based on ease of use and effectiveness

The possible stakeholders of this project includes pharmaceutical companies, physicians and clinicians, insurance companies and patients. Knowing the type of pain relievers based on users' response across age distribution and gender helps physicians and clinicians while subscribing to these drugs. Pharmaceutical companies and insurance companies will also identify their focus drugs for their users. Creating a customized logical or scientific communication platform benefits both health and economic success of patients as well