**Insurance Premium Prediction System**

**Objective:**

The purposes of this project to look into different features to observe their relationship, and plot various graphs based on several features of individual such as age, physical/family condition and location. It will help predicting future medical expenses based on the current one and in return will help medical insurance organisations to make decision on charging the premium.

**Project utilization to the clients**

This premium prediction system will play a significant role in customer service, from managing the initial interaction to determining which cover a customer requires based on his location, smoker preference and age. According to a recent survey, a majority of consumers are happy to receive such computer-generated insurance advice. Consumers are seeking personalised solutions—made possible by machine learning algorithms that review their profiles and recommend tailor-made products

**Dataset: Health Insurance Marketplace- Keggle**

The Health Insurance Marketplace Public Use Files contain data on health and dental plans offered to individuals and small businesses through the US Health Insurance Marketplace.

The dataset contain following tables incsv format for 3 consecutive years

* **BenefitsCostSharing.csv**
* **BusinessRules.csv**
* **Network.csv**
* **PlanAttributes.csv**
* **Rate.csv**
* **ServiceArea.csv**

**Scope**

The project plans to explore on below

* How do plan rates vary across states?
* How do plan benefits relate to plan rates?
* How do plan rates vary by age?
* How various features are co-related and how individual rates depend on it.
* Predict on map of USA various rate and display the no of plan in various states
* How do plan rates vary between smokes and non-smokers?