**Aim of the Project**

The aim of the project is to build a Machine Learning Model to predict whether an owner will initiate an auto insurance claim in the next year.

**Background**

The auto insurance industry is witnessing a paradigm shift. Since auto insurance company

consists of homogenous good thereby making it difficult to differentiate product A from

product B, also companies are fighting a price war (for insurance price). On top of that, the

distribution channel is shifting more from traditional insurance brokers to online purchases,

which means that the ability for companies to interact through human touchpoints is limited,

and customers should be quoted at a reasonable price. A good price quote is one that makes

the customer purchase the policy and helps the company to increase the profits.

Also, the insurance premium is calculated based on more than 50+ parameters, which means

that traditional business analytics-based algorithms are now limited in their ability to

differentiate among customers based on subtle parameters.

**Use Cases**

The model shall mainly support the following use cases:

1. Conquering Market Share: Capture market share by lowering the prices of the premium

for the customers, who are least likely to claim.

2. Risk Management: Charge the right premium from the customer, who is likely to claim

insurance in the coming year

3. Smooth Processing: Reduce the complexity of pricing models. Most of the transactions

are happening online with larger customer attributes (thanks to the internet and social

media). Harness the power of huge data to build complex ML models

4. Increased Profits: As per industry estimate 1% reduction in the claim can boost profit by

10%. So, through the ML model, we can identify and deny the insurance to the driver

who will make a claim. Thus, ensuring reduced claim outgo and increased profit.