## **Car Recommendation using user Reviews**

In this competitive world there are wide verity of cars are available to the customers to their rental purpose. With the ever-increasing demand to widespread technologies, multiple brands are producing wide varieties of cars that create multiple models every year that attracts customers. Choosing the best one always turns out to be a great deal among people in these endless selections and choices available in front of them. The need for recommendations rises here and are considered in this fact to let them choose the appropriate ones wisely that actually satisfies their needs from suggestions provided by users who have already used it. Through this seminar implementation we're aiming to solve the problems and obstacles that were faced among the customers considering to utilize their priorities in selecting and choosing the right brands and let them use comfortably according to their needs. By considering the need for recommendation we strictly aim to provide a strong need for recommendation that generates based on reviews collected from customers early used cars. It will let customers give positive as well as negative feedback based on their experience of using cars and the ones with most positive reviews will be displayed. Based on the reviews generated by already used cars from customers helps new customers choose wisely if that particular car they wanted to select will actually satisfy the expected needs or not.

There are many machine learning techniques used for this type of recommendations systems like sentimental analysis, natural language processing etc. The proposed machine learning technique that I've used here is a sentimental approach to classify user reviews and helps customers choose their desired cars accordingly. The user reviews given will be analysed through hybrid approach which is a subpart of rule based approach combined with lexicon based approach.

As the name suggest hybrid approach is a combination of several multiple simple algorithms combined in order to get the desired output. Various types pf techniques interact with data in several ways to analyse and classify user reviews.

Lexicon based approach is one of the approaches for semantic analyses which is a technique that calculates the semantic orientations of the data given which could be in document format or set of sentences from semantic orientations of lexicons. Semantic orientation can be positive, negative or neutral through which a conclusion is generated after analysing the input data.

This sentiment-based approach I've applied is expected to help meet user requirements through the modern technologies that have been adopted to classify and distinguish data.