

# Intelligent Customer Chatbot

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**Abstract:** Chatbot are programmes that mimic human conversation using Artificial Intelligence (AI). It is designed to be the ultimate virtual assistant entertainment purpose helping one to complete tasks ranging from answering questions, getting direction turning up the thermostat in smart home, to playing one's favorite tunes etc.

**Keywords:** Artificial Intelligence Markup Language (AIML), Latent semantic Analysis (LSA), pattern matching, Chatbot, Human computer Interaction.

## 1. Introduction

Today's era is having many web-based services like Business, Entertainment, Virtual assistance and many more. There is drastic increase in the world of web service, where everything is now getting associated with web. It is very user friendly approach to avail everything to doorstep.

There are different types of customer service available like live chat support service, phone (telephone) services. But for all such support services provided by human to human takes time to answer customers query.

## 2. Preprocessing

Dataset is a json file which contains intents and its tags, patterns, responses and its context.

Dataset have to be preprocessed before that could be used to create a model.

The preprocessing includes tokenization, which is used to split the words in individual word and are called tokens.

The tokenization technique is further processed to remove the duplicate words in the tokens only the unique tokens are used to create the model.

- Once the tokenization is carried the tokens will be further processed to the process of lemmatization.
- Lemmatization is the use of vocabularies and morphological analysis of words, aiming to remove the inflectional endings.
- Lemmatization is used to return the base or dictionary form of words, which is called as lemma.

By the completion of lemmatization process the result will be lemmas which is base form of the dataset intents.

## 3. Scrap Details

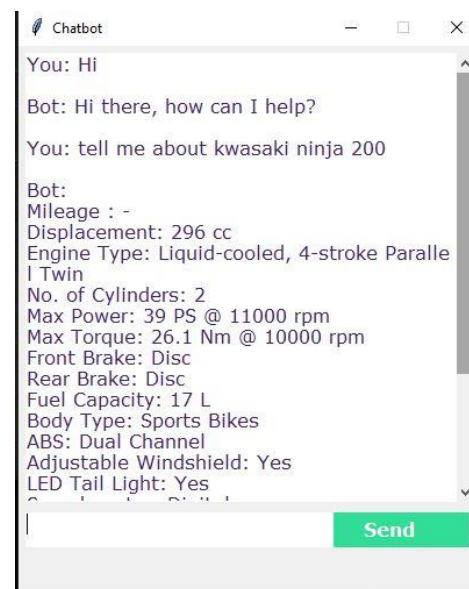
- Web scraping is used to scrap information from the website

it is made possible with the help of requests and beautiful soup modules in python.

- In chatbot when the user asks information about a particular motorcycle we will try to ask the chatbot model to generate response with the scraping the web.

## 4. Application

Application module will integrate all the modules namely chatbot module and the details scraping module.



## 5. Conclusion

This paper presented an overview on intelligent customer chatbot.

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