



Nagar Yuwak Shikshan Sanstha's  
**DATTA MEGHE COLLEGE OF ENGINEERING**  
Airoli, Navi Mumbai

Plot No. 98 Cidco Sector 3, Postbox No 15 Airoli Navi Mumbai 400708

MINI PROJECT REPORT

ON

Price Negotiation while Online Shopping

SUBMITTED TO

Prof. Swati Narwane

by

Students of Third Year Information Technology

Report Submitted in Fulfilment of requirement of      University of Mumbai  
in

Business Intelligence Lab

April 2022

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## **ACKNOWLEDGEMENT**

We have taken efforts in this report. However, it would not have been possible without the kind support and help of many organizations and individuals. We would like to extend our sincere thanks to all of them.

We are highly indebted to Prof. Swati Narwane for her guidance and constant supervision as well as for providing necessary information regarding the report and also for the support in completing it.

We would like to express our gratitude towards our parents for their kind co-operation which helped us in completing this report. Our thanks and appreciation also go to those people who have willingly helped us with their abilities.

Yours faithfully

TE\_B3\_25\_Ashutosh Salve

TE\_B3\_44\_Shivani Shetty

TE\_B3\_53\_Tanushree Singh

TE\_B3\_55\_Jyoti Some

## **ABSTRACT**

Negotiation is a key component of real life transactions. From major business deals to buying vegetables it acts as one of key the elements of cracking the deal. E commerce Chat Bot System that is Price Negotiator system makes the e-commerce sites to have their works in efficient manner. This E commerce Chat Bot System project would help to automate the online selling and negotiation based on price of product. Customer satisfaction is the major concern for all the web based applications and chatbots helps them work this major concern as customers do not need wait for customer executives to solve their queries. Chatbots can solve most of the customer queries without the interference of customer executives. Negotiation is a combination of both, linguistic and reasoning problems. It requires an intention for something which needs to be verbalizing. With the rapid development of electronic commerce, more and more people have begun to go shopping on the Internet. Price negotiation has become increasingly important for two reasons. From the consumer's view, price negotiation provides an opportunity to debate the price; from the vendor's view, the ability to negotiate the price allows for flexibility in pricing that a rigidly fixed price cannot offer.

## INTRODUCTION

Shopping has long been considered as refreshment by many. Shopping online became a recreational activity of life. The reason of developing web based online shopping system are many everyone walking down the street for shopping has some difficulties. Also some people are so much busy and not able to go out for shopping, Some don't like to shop in crowd. Online shopping system is a virtual store on Internet where customer can browse the product and select the product of interest. Negotiation is a combination of both, linguistic and reasoning problems. Negotiation is the process of exchange the highest likelihood of satisfying the needs of both parties. Negotiation covers many aspects of our lives have led to extensive research in the area of automated negotiators. The E-Negotiator Chabot helps the user to solve query and provide negotiation mode is dissatisfied with the price. Such system will help the users to freely interact with the software and upload their product related queries and budget and get the response related to the query. Just like retail and logistics companies use data to plot the most efficient route to deliver goods. Negotiation is a combination of both, linguistic and reasoning problems. It requires an intention for something which needs to be verbalized. Dialogue rollout is a concept defined by FAIR researchers for developing long term planning dialogue agents. Chatbots can solve most of the customer queries without the interference of customer executives. Thus, if a chatbot is able to implement negotiation then e-commerce websites will attract a lot of new consumers because of the features. In this report a chatter bot or chatbot aims to make a conversation between both human and machine and design and development of an intelligent message chat recognition chatbot for e negotiation.

## PROBLEM DEFINITION

As technology advances rapidly, on-line shopping is a new trend on Internet. Buying and selling products on Internet is growing rapidly. As there are many e-commerce websites available, there is a need for auction based website which can allow the buyer to bid high if the product is worth its quality.

An auction based web application becomes an effective tool where a seller can post the item for bidding and multiple buyers across the globe can view the product and bid high for the product. This allows the flexibility for the seller as well the buyer. In this we have implemented machine learning with the use of chatterbot it's a python library that easy to generate automate responses to a user's input.

Then we have used Chatterbot Corpus it's a collection of texts and dialogs included the chatterbot module taht helps in training that chatbot in learning the conversation patterns through different categories of intents. Then we have used flask application.

Spacy- spaCy is an open source software library for advanced natural language processing written in the programming languages python and cpython.

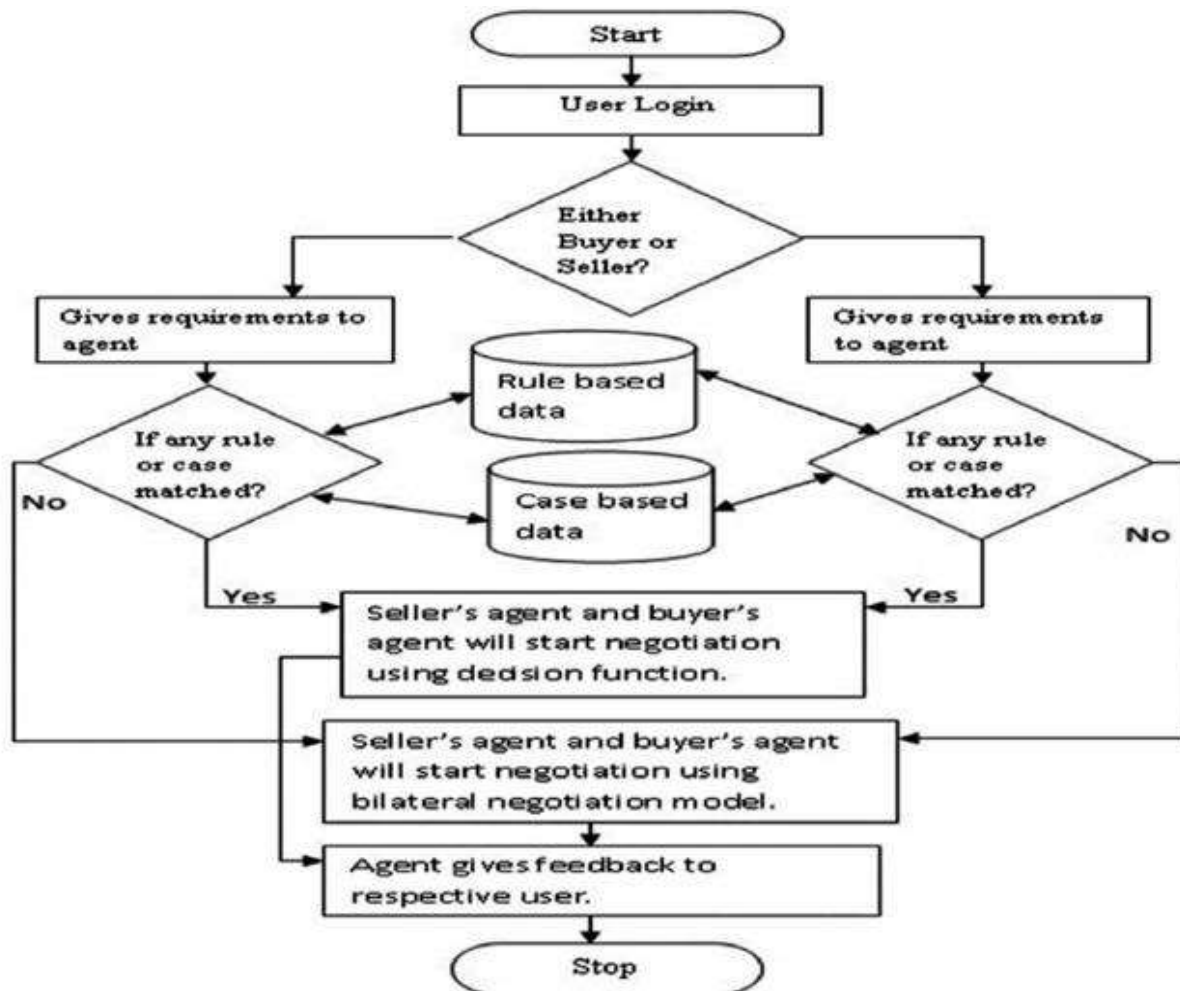
Use of Numpy in this project is that adding support for large multidimensional arrays and matrices, along with a large collection of high level mathematical functions to operate on these arrays.

## **LITERATURE SURVEY**

In this project we have used python 3.7 , flask application for runny chatbot function properly. And using web server chrome extension. For data store information we have used data.yml files in specified format to train the chatbot on your custom corpus data.

As we all know, internet and e-commerce are entirely committed towards every developed country. But we think it can be accomplished and can make a remarkable benefit to developing countries also if an ideal business purpose can be made. Ohidujja man clearly discussed that E-commerce is a revolution & turning point in online business practices and can make a huge contribution to the economy and Hasan et.al also indicated that currently, e-commerce organizations have increasingly become a fundamental component of business strategy and a strong catalyst for economic development. A huge amount of research works has been done on e-Commerce which is basically on online shopping. A large group of researchers has found out and also pointed out the necessity and possibilities of Online Shopping.

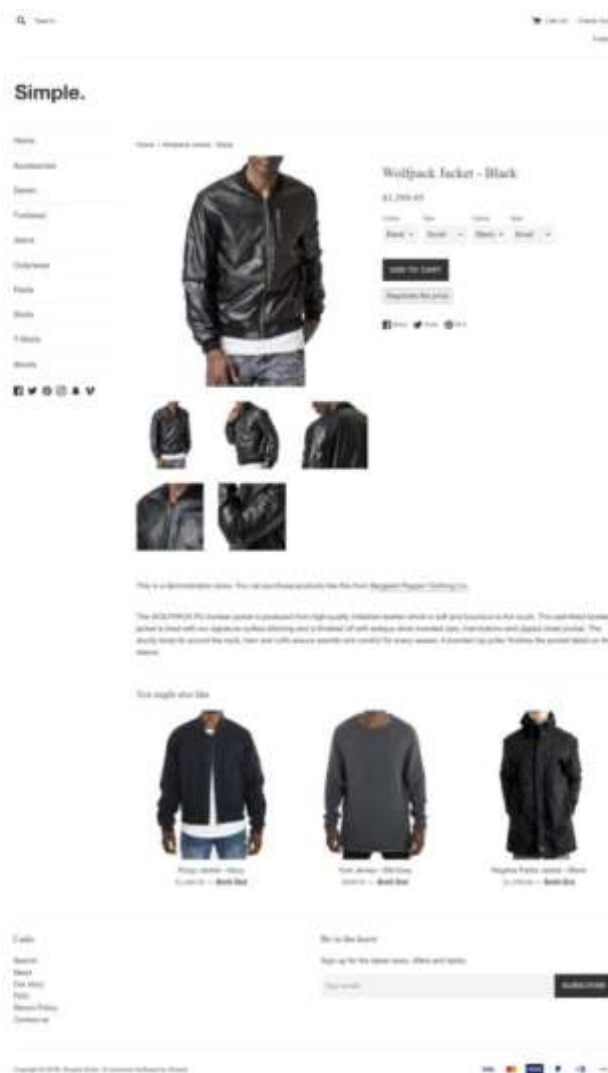
## FLOW CHART OF ONLINE SHOPPING NEGOTIATION





## RESULTS/DISCUSSION

we can see that the negotiation happen, first the bot show us the price of product and then give us two option to buy a product or to discuss. If we select the discuss option then bot negotiate with user and reduce price at certain level the price reduction is according to negotiation formula. At last if we enter the price less then the actual minimum price of product then the discussion will end. In this project it shows the negotiation process through help of chatterbot , chatterbot corpus, flask , spacy and numpy.





Chatbot screen

## **CONCLUSION**

Chat Bots have indeed proven themselves as a powerful tool to customer satisfaction and an unmatched resource. for the enterprises helping them save a lot of time and money. To date, different automated negotiation agents have been developed. Negotiation starts when supplier and customer have different expectations about price. Here we represent an E Negotiator chatbot for commercial websites which can help the users to get the product online according to their budget. As an alternative to the incrementally increasing goal that the research project implemented, future work could include creating a value for a goal based on feedback from real life store owners. The negotiation system researched for this project uses a dynamic limit that can be changed as the base goal of the system

We can add more feature related to discount purposes like discount cards, coupon & voucher. We can also implement in android apps. We can add calling feature in our website/app along with Chat bot.

With the use of machine learning in this project it makes it more easy no use of human intervention needed, and continuous improvement.

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