

# Smart Fashion Recommender Application

## Abstract

There has been number of researches in the field of data analytics to recommend the products, and many of them are successfully recommend the desired content what user is asking for. There are several domains such as e-commerce, movies, musical instruments, websites, books, etc. where recommendation system has its own significance. The outcomes provided by these domains has the scope of improvements so that final result will reach to user's satisfaction. This research use the recommendation system and provide the output desired by user. Research is introducing the chat bot which recommends the product to the customers as per their requirement. The chat bot is basically order taking with minimal user input and suggested the appropriate product. Customer provide the details about the product through the chat bot. And according to user description it will recommend the related products. Doc2Vec, Latent Semantic Analysis, and Sentiment Analysis come together to make relevant recommendations in a chat bot interface.

## Introduction

Internet shopping is productively growing in today's world of e-commerce. So, Product recommendation systems also has a chance to be developed. Since, users need a relationship between them and system. When relationship get build up then user get personalized care and attraction. System just not observe and analyze shopper behavior but also attracts them to come and buy again. Recommendation system reduces the boring task of users to search in an endless category what they want. Instead, they use the conversation as a filtering system, bringing the product to the customer. Online shopping has many advantages but their limitations and disadvantages also must be considered. User buying the product and what user is asking for doesn't match every time, this may lead to disappointment. As the needs of the users keeps changing day by day, the improvement of existing functionality of these systems has become a crucial factor. By analyzing history of internet shopping, there will be huge demand for recommendation systems in near future. Customers buy according their choices, moods, events, etc. this research will recommend the fashion designs like dresses, ornaments, beauty products according to customer's moods, likings, etc. Customer just has to write description of dress which he/she wants to buy. For example – I want something to wear at beach or pool. This description is enough to recommend you the appropriate dress you are exactly looking for. description is enough to recommend you the appropriate dresses you are exactly looking for.

The huge amount of digital data is exponentially growing day by day leading to the difficulties for users to search the required data. Search engines like Google solve the problem of data availability but the issue of personalizing content's to the user remains as it is. Hence, necessity of recommendation system is increased to overcome these problems. These system worked by filtering the huge amount of data and provide the information according to user's requirements

E-commerce platforms are framed using recommendation system. This system try to recognise customer's behavior and then recommend the products according to their interest (Schafer et al.; 1999a). The wildly growing shopping websites such as Amazon, Levis has their own way of recommending products. For example, Amazon5 recommends user items that have different features like Customer who viewed this item also viewed, Customer who bought this item also bought. It suggests the Customer what else he can buy with already bought products.

Mooney and Roy (2000) developed a system named as Content based book recommending using learning for text categorization. It concludes that Content based methods and machine learning algorithms can produce accurate recommendations. A prototype, Learning Intelligent Book Recommending agent (LIBRA) was developed. The data source used for this research mainly involved extract from Amazon.com web pages.

Gomez-Uribe and Hunt (2016) developed a system named asThe netflix recommender system: Algorithms, business value,and innovation, ACM Transactions on ManagementInformation System. The methods used in this are Top N algorithm, PVR (personalized video ranker) algorithm,supervised (classification, regression) and unsupervised approaches (dimensionality reduction through clustering or compression). It concludes that the different algorithms that make up the Netflix recommender system, the process that paper use to improve it. Paper convinced that recommender system will effectively guiding people to the truly best few options for them to be evaluated, resulting in better decisions.

After taking the overview of the above researches, the specialized and personalized system for recommending the smart fashion products has not developed yet. While searching any fashion products we are interested, we can enter the description of what we exactly need. To query these systems we can use our likes, dislikes i.e. sentiments about the products to get relevant recommendations. Hence, considering use of products recommendation system will help users to get the perfumes which meet their requirements

We have come up with a new innovative solution through which you can directly do your online shopping based on your choice without any search. It can be done by using the chatbot.

In this project you will be working on two modules :

1. Admin and
2. User

#### **Admin:**

The role of the admin is to check out the database about the stock and have a track of all the things that the users are purchasing.

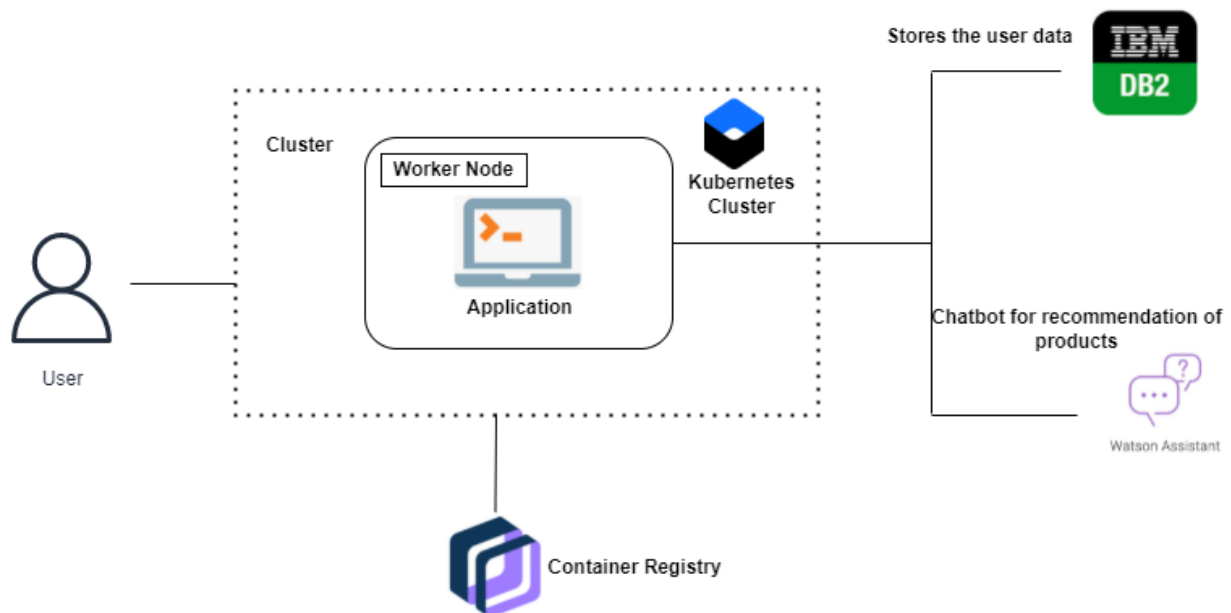
#### **User :**

The user will login into the website and go through the products available on the website. Instead of navigating to several screens for booking products online, the user can directly talk to Chatbot regarding the products. Get the recommendations based on information provided by the user.

#### ***Features of Chatbot :***

- Using chatbot we can manage user's choices and orders.
- The chatbot can give recommendations to the users based on their interests.
- It can promote the best deals and offers on that day.
- It will store the customer's details and orders in the database.
- The chatbot will send a notification to customers if the order is confirmed.
- Chatbots can also help in collecting customer feedback.

## Technical Architecture:



## Conclusion:

This paper presented an interdisciplinary, comprehensive review of what has been done in the field of conversational agents for fashion and retail e-commerce. Thus, this study adds to specialized literature in the field of chatbot design for fashion e-commerce by providing a comprehensive map of chatbot approaches that can be deployed by retailers.

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