

1.0 Introduction: Fifty years ago, the advent of computers in our contemporary world led to a change in the understanding of data compared to the manner that the arrival of computers into our contemporary world has directly led to our understanding of data. Large corporations like Amazon, Flipkart, Instagram, Netflix, and Spotify, among others, rely on the effectiveness of their individual recommendation engines and systems to boost user engagement on their individual platforms. A recommendation system can mitigate these issues by leveraging data analytics to offer personalized suggestions based on individual preferences and past orders. Improving the ordering experience: leveraging customer data such as previous orders, preferences, and dietary restrictions to provide personalized dish and comparison suggestions. Increasing sales: The recommendation system encourages customers to explore new items and make purchases by presenting them with relevant and popular options. This is true since boosting user engagement requires effective recommendation engines and processes. The prevalence of recommendation algorithms in well-known media streaming services like Netflix shouldn't be shocking. However, challenges such as lengthy menus and difficulty finding suitable dishes can lead to customer frustration and missed opportunities. Ultimately, a well-implemented recommendation system can transform the ordering process into a more enjoyable and efficient experience for both customers and establishments.]3[

1.1 Purpose of the project: The project's main goal is to improve the restaurant industry and make it more enjoyable for customers by providing personalized recommendations based on their trends and preferences. This dynamic recommendation approach not only boosts immediate sales but also enhances customer loyalty by creating a more personalized and engaging experience. This not only improves customer decision-making and enhances their dining experience but also streamlines the ordering process and boosts sales through targeted recommendations. By leveraging advanced algorithms, the system will improve recommendations over time based on evolving customer tastes. Significant changes have also been made to the recommendation domain as a result of the exponential growth in data volume. Based on their viewing history and chosen preferences, these algorithms help users choose the best films and TV series to watch [1]. The ordering process in restaurants and is crucial for customer satisfaction and operational efficiency. Additionally, staff may lack the time to provide personalized recommendations, resulting in longer wait times and decreased customer engagement. Recommender system is able to provide data for decision-making to users on selection of foods that meet individual preference. The most common filter is collaborative filtering that works by using existing human experience for recommendation. Such principle is different from content-based filtering as recommendation depends on specific characteristics of content. By adapting the recommendations, it enhances customer satisfaction. The primary cause of this paradigm change has been the exponential growth in the amount of data. This can also include highlighting popular and seasonal items to guide customer choices. The reason for this is that these companies are vying with one another to give their clients the greatest experience possible.