**Project Overview**

A content recommender system is a type of artificial intelligence that uses algorithms to recommend content or items to users based on their interests, preferences, and behaviours. It is commonly used by businesses to personalize user experiences and increase engagement and revenue.

In the context of EatOut, a content recommender system could be used to recommend eateries and hotels to users based on specific keywords and explicit feedback from other users. The system could analyse a user's browsing behaviour and past interactions with the EatOut website to provide personalized recommendations that match their preferences and needs. The system could also consider the ratings and reviews of other users who have similar interests and preferences, providing a more accurate and relevant set of recommendations.

The key benefit of a content recommender system is that it provides users with a more personalized and efficient way of finding relevant content, leading to increased engagement and customer loyalty. It also enables businesses to target their marketing efforts more effectively, resulting in higher revenue and profitability.

**Problem Statement**

EatOut is a media and food tech company that operates mainly in Kenya and East Africa. Its establishment dates to 2010, and it provides customers with the ability to browse through numerous eateries, providing crucial data like menus, contacts, maps, events, reviews, and pictures. With the advent of social media, many people rely on influencer and user-generated recommendations on platforms like Instagram and TikTok because they offer a more personalized assessment of the restaurant's ambiance, service, and food, compared to a traditional rating system. Consequently, many restaurants and hotels are using these platforms as marketing tools, which is affecting the website visits and revenue of food tech businesses such as EatOut. However, they can enhance their competitive advantage by creating a more customized feel to their website. This would help users find eateries and hotels based on criteria beyond cuisine or ratings. A content recommender system, which considers explicit feedback from other users, rather than the standard similarity-based approach, could help. With this system, users can easily find relevant recommendations based on specific keywords, thus avoiding the need to browse through countless items.

**General Objective**  
  
To improve the competitive advantage of EatOut by developing a content recommender system that provides users with customized recommendations based on specific keywords and explicit feedback from other users.

**Specific objectives**

1. To analyse the current browsing behaviour of EatOut users and identify the limitations of the traditional rating system.
2. To develop a content recommender system that incorporates explicit feedback from other users and considers keywords beyond cuisine or ratings.
3. To test the performance of the recommender system in terms of accuracy and efficiency in providing personalized recommendations to users.
4. To integrate the recommender system into the EatOut website and provide a user-friendly interface for users to access and interact with the system.
5. To evaluate the impact of the recommender system on the website visits and revenue of EatOut.

**Research Questions**

1. What are the limitations of the traditional rating system used by EatOut?
2. How can explicit feedback from other users be incorporated into a content recommender system for EatOut?
3. How accurate and efficient is the proposed recommender system in providing personalized recommendations to users based on specific keywords?
4. How can the recommender system be integrated into the EatOut website, and what features should be included to make it user-friendly?
5. What is the impact of the recommender system on the website visits and revenue of EatOut, and how does it compare to the traditional rating system?

**Success Criteria**

The project will be successful if the content recommender system developed is effective in enhancing the competitive advantage of EatOut by providing users with a more personalized and efficient way of finding relevant eateries and hotels, leading to increased user engagement, customer loyalty, and revenue. Precisely, at the end we should have:

1. A successful analysis of the current browsing behaviour of EatOut users and identification of the limitations of the traditional rating system.
2. Successful development and implementation of a content recommender system that incorporates explicit feedback from other users and considers keywords beyond cuisine or ratings.
3. High accuracy and efficiency of the proposed recommender system in providing personalized recommendations to users based on specific keywords.
4. Successful integration of the recommender system into the EatOut website and user-friendly interface for users to access and interact with the system.
5. A significant increase in the website visits and revenue of EatOut, compared to the traditional rating system.

**Experimental Design**

1. **Planning phase:**
   1. Define project scope and objectives based on the problem statement.
   2. Identify stakeholders and their requirements.
   3. Create a project plan, including timelines, milestones, and resource allocation.
2. **Analysis phase:** 
   1. Analyse the current browsing behaviour of EatOut users and the limitations of the traditional rating system.
   2. Conduct a market analysis to identify the latest trends and emerging technologies in content recommendation systems.
   3. Define the criteria for evaluating the success of the project.
3. **Design phase:**
   1. Develop a content recommendation system that incorporates explicit feedback from other users and considers keywords beyond cuisine or ratings.
   2. Design the user interface for the recommender system, including the search functionality and personalized recommendations.
   3. Develop a database to store user data, explicit feedback, and recommendations.
4. **Development phase:** 
   1. Develop the recommender system using the chosen programming language or tool.
   2. Test the system for accuracy, efficiency, and functionality.
   3. Address any issues or bugs that arise during the development phase.
5. **Implementation phase:** 
   1. Integrate the recommender system into the EatOut website.
   2. Train the EatOut staff and customers on how to use the recommender system.
   3. Monitor the system's performance and user feedback.
6. **Evaluation phase:** 
   1. Evaluate the impact of the recommender system on the website visits and revenue of EatOut.
   2. Analyse user feedback and satisfaction with the recommender system.
   3. Identify areas for improvement and future development.